**Design Specification Document for**
**the GES App**
**GES App Report O5**

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| **Deliverable no.** | O5 |
| **Name of Deliverable** | Design Specification Document for the GES App |
| **Type** | Learning / teaching / training material – Manual / handbook / guidance material |
| **Activity Type** | Intellectual Output |
| **Date of delivery** | **Contractual**: 23.02.2021 **Actual**: 27.09.2022 |
| **Code name** | O5 **Version**: 2.0 Draft ☐ Final ☑ |
| **Type of deliverable** | Report |
| **Security (Distribution level)** | |
| **Contributors (partner)** | NTNU, UWS, Cardinal Stefan Wyszyński University in Warsaw, University of Peloponnese |
| **Authors** | Maria Iqbal, Lars Jørgen Fredheim, Sobah Abbas Petersen (NTNU) Aisha Abbas, Alan Williams, Gavin Baxter (UWS) |
| **Contact Person** | Sobah Abbas Petersen (NTNU) |
| **Task responsible** | NTNU |
| **EC Project Officer** | |
| **Keyword List** | |

Grant Agreement 2019-1-UK01-KA203-062146
GES App Project Coordination at: University of the West of Scotland
Contact: Dr. Graham Scott graham.scott@uws.ac.uk

# Document revision log

| Version | Date | Description | Author |
|---|---|---|---|
| 0.1 | Sept. 2020 | Initial sketch of the concepts | Lars Jørgen Fredheim, Sobah Abbas Petersen (NTNU) |
| 0.2 | Mar. 2021 | New document creation. Incorporated screen shots from the Figma Prototype | Lars Jørgen Fredheim, Maria Iqbal (NTNU) |
| 0.3 | Jun. 2021 | Included additional activities and concepts included in the GES App design. Revisions based on feedback from partners. | Maria Iqbal (NTNU) |
| 0.5 | Aug. 2021 | Described concepts related to Dream jobs, creating CVs and networking | Aisha Abbas (UWS), Maria Iqbal (NTNU) |
| 0.6 | Dec. 2021 | Enhancing descriptions of the design and features. Revisions based on feedback from partners. | Alan Williams (UWS), Maria Iqbal (NTNU) |
| 1.0 | Mar. 2022 | Enhancing descriptions of the design and features. Revisions based on feedback from partners. | Aisha Abbas, Alan Williams, Gavin Baxter (UWS), Maria Iqbal, Helene Jonson, Sobah Abbas Petersen (NTNU) |
| 1.1 | Aug. 2022 | Final revisions and quality assurance. | Maria Iqbal, Sobah Abbas Petersen (NTNU) |
| 2.0 | Sept. 2022 | Final revisions and quality assurance | Sobah Abbas Petersen (NTNU) |

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## Executive Summary

This report, the GES App Design Specification, provides a detailed description of the design of the GES App and describes the functionalities of the GES App in great detail. An overview of the relevant theoretical context and the requirements that have informed the design of the app have been described. The design methodology and the rationale for the design decisions are described in detail. The GES App is designed to support users in five main activities, which are documentation and self-assessment of skills, planning for a specific job (Dream Job), access to learning resources for enhancing skills, networking and enhancing employment readiness through preparing a CV. The functionalities included in the GES App are designed to support these main activities. A conceptual framework to support these activities is proposed, to identify the main concepts the app should support, such as skills and personal goals, and how these concepts relate to one another. The app is designed using this conceptual framework.

Rapid prototyping has been used to explore the design concepts before embarking on the implementation. The front-end of an interactive prototype was developed using the Figma application, which was evaluated by users and the feedback was taken into account to improve the design. Ideas from Service Design, such as user journeys of the activities have been used both to illustrate the concepts to the developers as well as to obtain better feedback from the users. This document describes the output from the ideate and prototype phases of the project and serves as input for the developers for the mobile app development and project partners for content development and usability testing.

# 1 Introduction

The objective of this deliverable is to document the design specification of the mobile application for the project of Global Employability Skills [1]. The design document includes the details of results of early design tasks as stated in the O2 report and the conceptual framework for the mobile application for GES, which will be referred to as the GESS App, along with identified activities. The results from early design tasks enabled the contextualisation of the GES App and identification of the application features and gamification aspects.

## 1.1 Project

The main aim of the project is “to develop an app that allow students to reflect, plan, record and evidence the acquisition and development of GESs throughout their university journey”. The application of Global Employability Skills [1] is being investigated and developed as ERASMUS+ project and sponsored by European union’s horizon 2020 research and innovation program. There are 4 universities participating in the project that are the University of the West of Scotland (UWS), the Norwegian University of Science and Technology (NTNU), the University of Peloponnese, and Cardinal Stefan Wyszyński University in Warsaw.

## 1.2 The name of the app

The project defines the term GES both as *graduate* employability skills and *global* employability skills alternatively across their publications [9]. For the project we will use the graduate employability skills as the intended group of users are new graduates of the universities along with jobseekers. Following the base line concept of the project, the mobile application is named as GES App.

## 1.3 Vision of the GES App

The aim of the GES mobile app is to support users, especially university students, to recognize and acknowledge employability skills acquired during their educational journey and through different experiences. The GES App aims to allow students to plan, record and evidence the acquisition and development of global employability skills. Allowing students to reflect on their skills and experiences through the activities in the application enables them to acknowledge the acquired skills during their academics and different practical experiences that can go unidentified otherwise. The GES App is also intended to motivate users to enhance their skills to achieve their goals in terms of employability.

## 1.4 Context of the Deliverable

This deliverable, Output O5 - Design Specification for the GES App, takes input from the Intellectual Outputs O1, O2 and O3 to design the framework and the capabilities for the mobile app and the educational game platform. The contents of this deliverable will provide input to the Intellectual Outputs O6 (the educational app and platform), O4 (the contents of the GES App) and O7 (support material for staff and students), as shown in Figure 1.

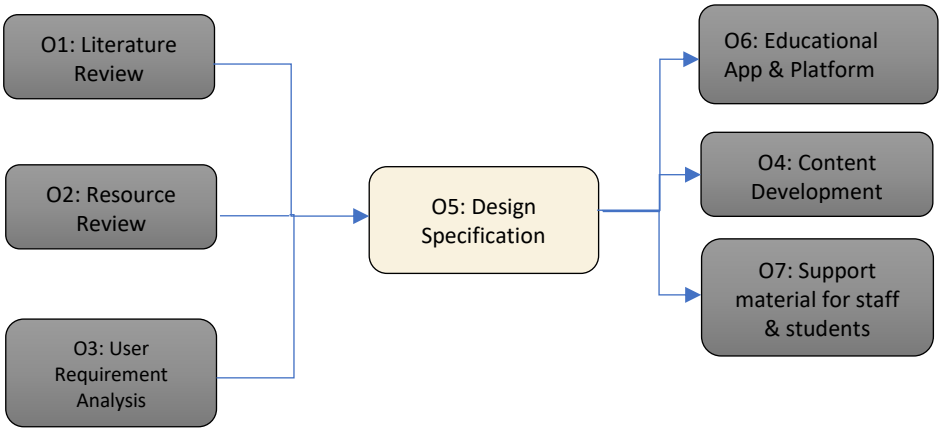



Figure 1: Intellectual Output of deliverables

The main audience for this document will be the developers of applications to support the development of GES among students.

## 1.5 Structure of the Deliverable

The contents of this deliverable are structured as follows:

- Chapter 1: This chapter includes introduction of the project and documents the vision of the GES-app development. The context of deliverable is also defined with respect to the other deliverables of the project.
- Chapter 2: In this chapter, the background of the application design is defined along with literature review. The design methodology is also defined in this chapter which has guided the design development of the application.
- Chapter 3: In this chapter, the outline of mobile app is defined in terms of skills repository, identified activities from deliverable O2 and O3, supporting activities to achieve goals of main activities and basic user interface.
- Chapter 4: This chapter includes the details regarding the conceptual model of the app with details regarding the key concepts developed in the application such as coach, dream job, skill gap and application personalisation.

- Chapter 5: In this chapter, the design of the mobile application, GES App, is described. The details of activities and sub- activities that could be performed with the GES App are described in detail. User journey and interactive design mock-ups of the application are created using a rapid prototyping application, Figma.
- Chapter 6: This chapter reflects on the gamification aspects of the GES App design and include mock-ups details reflecting the integration of different motivational aspects through different activities.
- Chapter 7: The content development for the activities supported in the GES App are defined in Chapter 7, where the need for the content is identified as per the activity requirement and source of content to be developed for the app.
- Chapter 8: summarises the report.

# 2 Application Design Background and Methodology

## 2.1 Design background

The design tasks as defined in project proposal include the literature review, a review of the resources and user requirement analysis that provides input for the design framework of the GES App.

### 2.1.1 Literature review

The output of O1: Literature review – Looking at Graduate Employability Skills (GESs), enabled the identification of graduate employability skills and how they are conceptualised as shown in Figure 2. The literature review also assisted in determining the skills that are emphasised by students, employers, and Higher Education institutions in the present-day industry [15].


Figure 2: Conceptual employability framework from literature review

***Results from literature review***

The "skill repository" is defined in the light of literature review conducted by European partners which is also an intellectual output of the project and summed up by Scott [16]. The idea of the repository devised to focus on four areas of students that are:

(1) knowledge,

(2) skills,

(3) attitudes, and

(4) values.

## 2.2 Design Methodology

The GES-app is designed using methodology of "Design Thinking Process" which is a non-linear and non-sequential process that provides a solution-based approach for problem solving and defined in five stages by Hasso-Plattner Institute of Design at Stanford (d. school) are: Empathise, Define, Ideate, Prototype and Test as shown in Figure 3. [3]

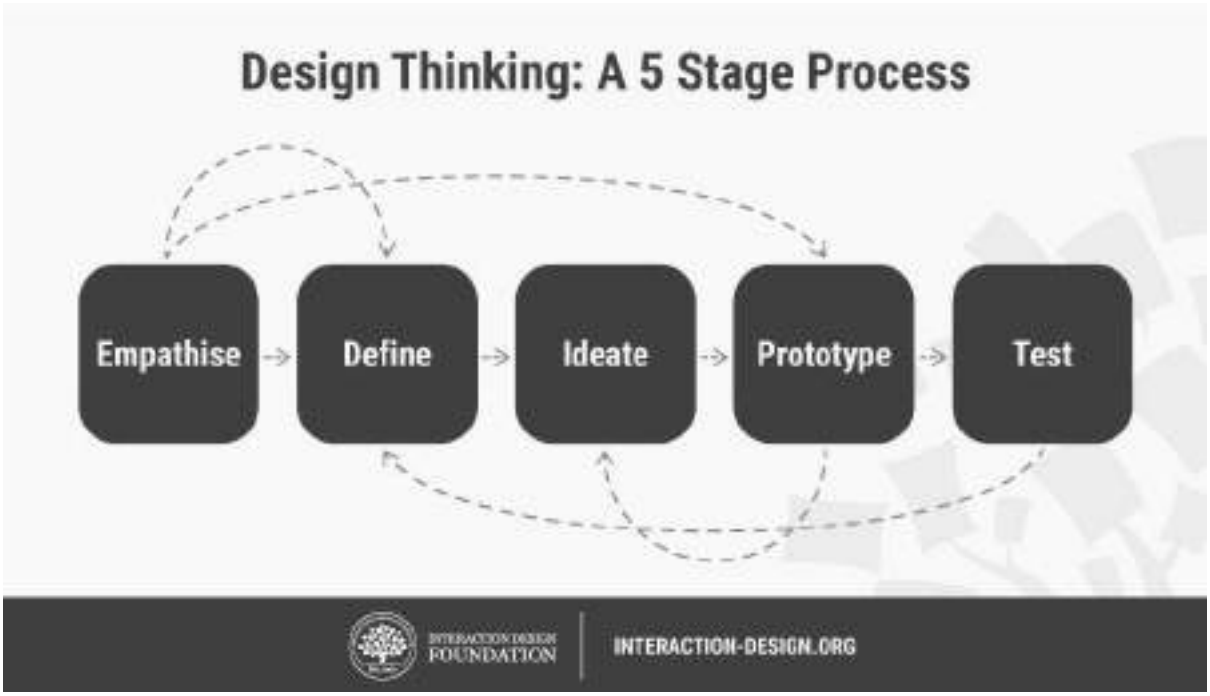



Figure 3: 5 Stages for Design Thinking Process [1]

1. **Empathise**

   This stage of design thinking process involves activities to gain an empathic understanding of the problem. The objective of the stage is to gather significant amount of information which is achieved through initial design activities. For the understanding of the problem detailed literature review was performed and theoretical framework of employability skills was defined in this phase.

   To investigate type of user and user requirements focus group method was deployed where three user groups were identified as per stratified sampling that were students / job seekers, employers, and academic institutes. For information gathering through focus groups interviews were conducted by each partner institutes.

2. **Define**

   The second stage of design thinking process is "Define", in which the created and gathered information in Empathise stage is analysed to identify core problem and to create requirement analysis. For this purpose, the interviews and observations were analysed in the light of employability framework and individual perspective of each focus group was evaluated in terms of employability.

3. **Ideate**

   During this stage of Design Thinking process, brainstorming was used for ideation of the application framework and its functionalities. Through ideation process the main activities

were identified to achieve the requirements and goal of the application. Brainstorming sessions during meetings with partner universities, for different scenarios also enabled the identification of supporting activities to accomplish goals of the project.

4. **Prototype**

The ideation stage leads to the "Prototype" stage of the process. In this stage the user journey and mock-up of the GES application was developed using Figma. The mock-up of the application was scale down version of application exhibiting the supporting activities through different functionalities.

5. **Test**

In the testing stage of the Design Thinking process the prototype is going to be developed and tested for usability and effectiveness. For this purpose, the prototype developed through Figma is tested with users from different focus groups that will enable the development of final prototype leading to fully operational mobile application of GES.

| Stages | Outputs | Procedure |
|---|---|---|
| Empathise | Literature Review | i) Literature review for existing models<br>ii) Digital resources review for identification of need.<br>iii) Focus group interviews |
| Define | User Requirement Analysis | i) Qualitative data analysis from focus groups<br>ii) Graduate employability skills from different focus groups perspectives<br>iii) Quantitative data collection using surveys to identify user requirements |
| Ideate | Content development | i) Activity design specifications<br>ii) User interface design and user journey<br>iii) Content development with respect to activity design |
| Prototype | E-learning Platform | i) GES App mock-up in FIGMA<br>ii) App development in unity<br>iii) Testing and evaluation |
| Test | | |

Table 1: Design thinking process and outputs

# 3 Outline of the Mobile App

This chapter describes the outline for the mobile app based on the input from the Intellectual Outputs developed in the empathise and design phases of the project. Based on the outcome of O1 Literature Review, it was decided that the GES App would focus on the "Skills" element, to draw the attention of users to the skills that are of interest to potential employers and that would also make university

students more attractive to the employers. The conceptual framework for the GES App is based on skill definition as explained below in section 3.1.1.

The main elements of the GES App that have been identified are as follows:

- **Skills repository** – the GES App should include a list of global employability skills that are available for the users to identify skills from. The list of skills to be added to skill repository has been identified through the literature review and focus group interview analysis.
- **Supporting activities** – are defined to support and encourage students to reflect on skills they acquired in the light of how these are developed, and documentation of these skills through evidence. In addition, the activities are intended to involve students to identify their interests, future plans, strengths, and weaknesses. The process enables them to identify ways in which they can improve their visibility through skill development process.
- **User Interface** – the user interface of app is designed for user interaction and considering user experience while focusing on the elements of user motivation.

## 3.1 Skills Repository

The list of relevant GESs that have been identified through requirement analysis and literature review are made accessible to the users with the help of skills repository. The aim for the skills repository is to enhance the user awareness for the most relevant GESs that are not only essential for their job profile but also sought by the potential employers.

### 3.1.1 Components of Skill framework

The "Define" stage of the design thinking process led to the following proposed framework for representing the skills repository, which also serves as the basis for the conceptual framework for the mobile application of GES-app. We will refer to this as the Skills Framework in the document. The Skills Framework, as shown in **Error! Reference source not found.**, focuses on the elements of a skill, which are required by skills repository and for the users to record or document their acquired skills. The framework also considers the possibility for users to document any evidence of possessing the skill, e.g., as experiences or projects they have worked on that enable them to apply or learn the specific skill.

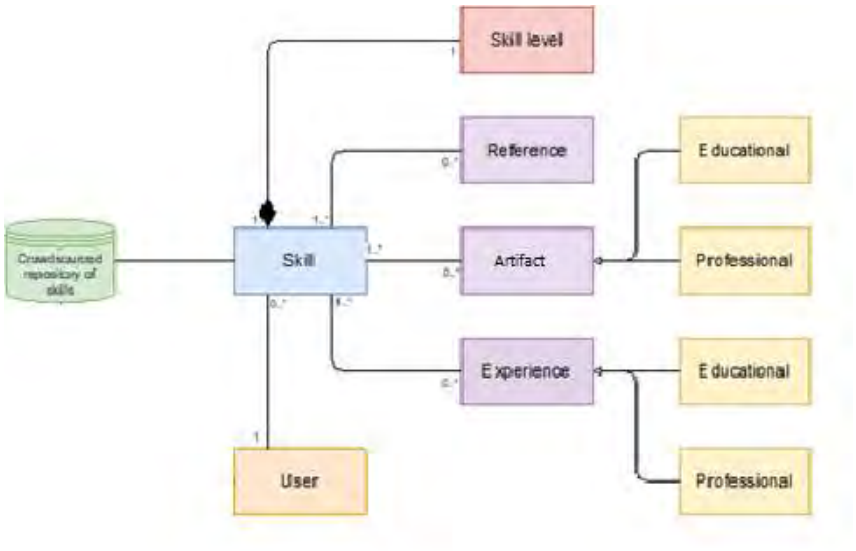



Figure 4: Skills Framework for GES App

The different elements of the skills framework are defined as follows [4]:

**Skills**

Skill is the centre point of the framework as one of the main objectives of the GES App is to enable users to record and track their skills and to give them an overview of their skills. A user can have multiple skills with different skill levels and each skill is defined in terms of experience, project, and references.

**Skill Level**

The skill levels are defined based on the Dreyfus model for skill acquisition [3], which include five levels, ranging from novice to expert level. The skill level for skill is assessed by the user.

**Skill Evidence**

To document and justify why a user believes to possess a skill, the skill evidence part of the framework is defined that enables the users to record evidence for skills. For example, the user can claim for the skill of "project management" and documents project activity or a specific experience as evidence for possessing that skill during which either user gained that skill or practice it. As per the analysis from interviews and user requirements, evidence for skills can be recorded as experience, artifact, and reference.

**Experience**

Experience can be defined as "What I have done?" by the user. The experience can be professional or educational and can be used to authenticate one or more skills. The experience can be acquired through educational curriculum or professional training or through some

activity. The experience can be assessed by reflective questions that can enable user to quantify the performance. One Skill can be associated with many Experiences (1-n).

**Artifact**

The concept of artifact is used to substantiate the skill and can be the output from the project. It can be defined by user as "What I made?". This be a textual description, a document, video, link, software, model, report, etc. that can showcase the work done associated with it. The artifact can be related to an educational and a non-educational experience. One skill can be supported by many artifacts.

**Reference**

Reference in this framework acts like a reference used in a CV or a resume. The reference can be information regarding the person who could validate or verify the skill or skill set for the user. The reference can be personal from academics, professional experience, team member, etc. One reference can validate multiple skills and one skill can be validated by many references.

### 3.1.2 Crowdsourced repository of skills

The GES App shall contain a list of skills that are available for users, from which the users can select one or more skills and add to their profile (or the skills set linked to their user profile). The list of the most relevant global employability skills that could be included in the repository have been identified from the Intellectual Outputs O1, O2 & O3 and discussed in detail in O4, which is content development. However, it cannot be assumed that this list of skills is an exhaustive list and will be relevant for all users and would remain unchanged over a long time. Therefore, there is a need for allowing the users to add their own skills which they believe are important and relevant for them as well as supporting users to contribute new skills that could eventually be included in the skills repository in the GES App With the support a dynamic skill repository, users will be able to share information about relevant skills with each other through the GES App. It has been evident from the literature review that crowdsourcing has been a common choice for gathering contributions from users [14].

The crowdsourced skills repository will be used for:

- Storing of most common employability skills
- Storing of additional skills contributed by the users

## 3.2 Supporting Activities

The ideation stage of the design thinking process included brainstorming sessions and the following five main activities were identified to achieve the objectives of the GES App:

1. Activity 1- Self-reporting GESs: users can document and assess their global employability skills.
2. Activity 2- Dream job: users can define their dream job and work towards improving their skills based on their dream job.
3. Activity 3- Practice selected skills: to develop and improve new or acquired skills.
4. Activity 4 – Networking & ethics
5. Activity 5 – Employment readiness.

A mock-up of the interface for accessing the activities supported in the GES App are shown in Figure 5.

Figure 5: Mock-up for identified activities in app

An overview of the five activities and the supporting activities are shown in Figure 6. The activities are described in detail in Chapter 5.

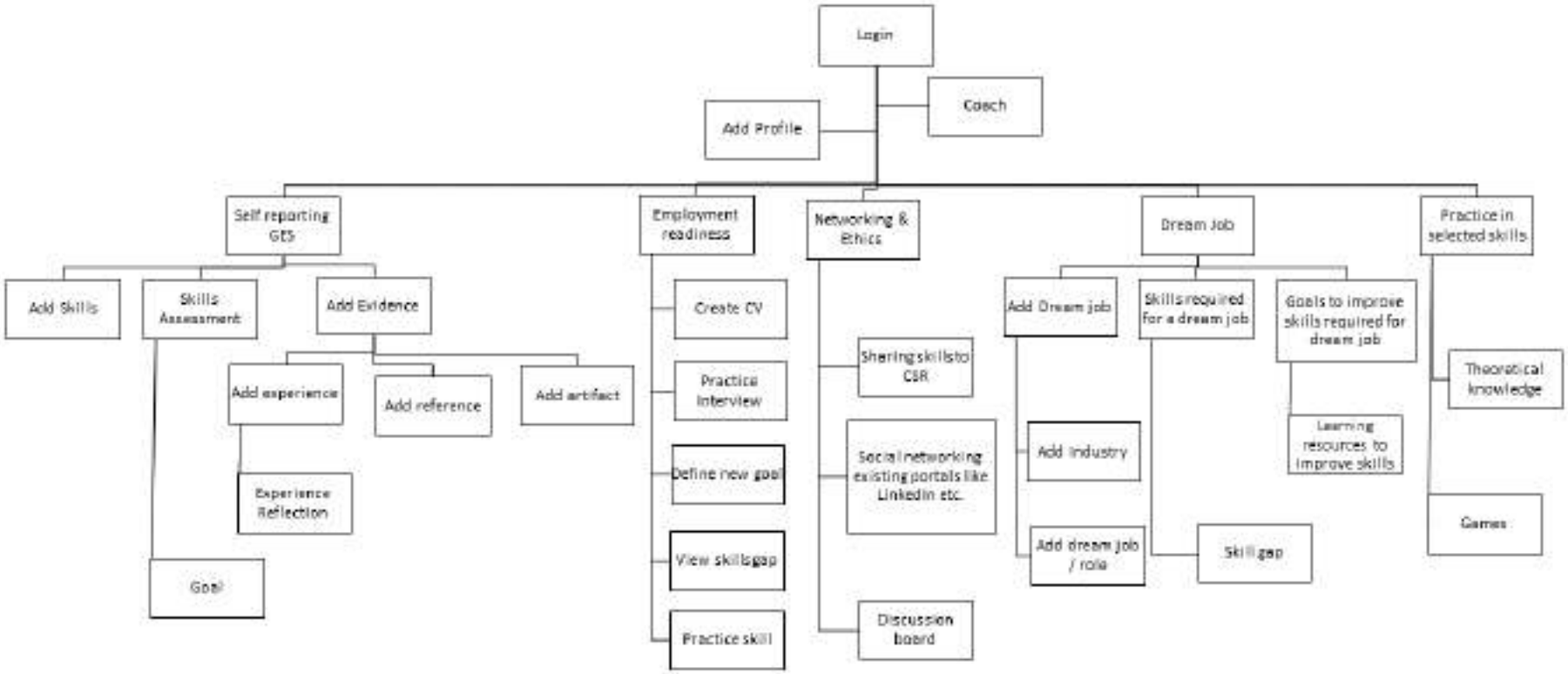



Figure 6: Activities and supporting activities for GES-app

## 3.3 Interface

The interface is based on the concept of a “personal coach” for personalisation of the user interface. Ideas from gamification [7] are used to design the capabilities and the user interaction of the GES App.

## 3.4 Types of users and user profiles

The potential types of end-users of the GES App that were identified through the Intellectual Output O3, Requirements Elicitation, and focus group interviews are:

1. Students/ young graduates – who are preparing for employment and seeking jobs.
2. Job seekers
3. Academic personnel or educators – who are most likely university or high school level educators and career advisors, that are in contact with students.
4. Administrative – who have the rights for managing users, skills repository, etc.

Students, young graduates, and educators are considered as the primary end-users of the GES App.

**User profiles**

It is mandatory for all users to register and have a user profile that include information as follow:

- Username (unique ID)
- Type of user (or Role) – Student, Job seeker, Academic, Admin
- Password
- Photo of the user (optional)
- List of skills (empty set, user is prompted to self-report)
- List of courses (empty set, user is prompted to add)
- Goal
- Personalisation option – coach.
- Privacy options: A user can decide if their profile is shared with others, and which elements of the profile is shared. E.g., if the list of skills and their levels are shared or kept only for personal use.
- Frequency of use/usage history of activities log-email address, (is it necessary to have address, contact details – thinking ahead as this information is used to compose the CV).

The user should be able to have an overview of their profile, or an overview of selected elements of their profiles. The user should be able to edit their profiles at any time.

For the primary user type that is student or job seeker, the skill profile is also part user profile that include information regarding:

- List of skills and the components of each skill with reference to Skills Framework.
    - Skills that are selected from the skills repository or added by user.
    - Skills that are kept private – i.e., skills that are not included in the skills repository and have been added by the user, but NOT shared with the crowdsourced skills repository.
    - Skills that are added by the user and shared with the crowdsourced skills repository.

A user interface design for visualising the skill profile with skills recorded by a user is shown in Figure 7.



Fig : Skill overview (A) Fig: Skill overview (B)

Figure 7: Skill overview option in design

Each skill is represented by a skill card as shown in the Figure 7, where user has recorded three skills. The self-assessed level of a skill is indicated by the no. of stars (0-5, where the highest level is indicated by 5 stars). For each skill, the number of experiences, the number of projects and the number of references that are recorded and indicated at the bottom of each skill card. The three dots that are visible on the top right of each card enable user to view other related information such as detail of artifacts associated with the skill.

# 4 Conceptual Model of the GES App

The overall conceptual model or the conceptual framework for the GES App is based on the skill framework as defined in Chapter 3 and elaborated with components to support the defined activities of app as shown in Figure 8.

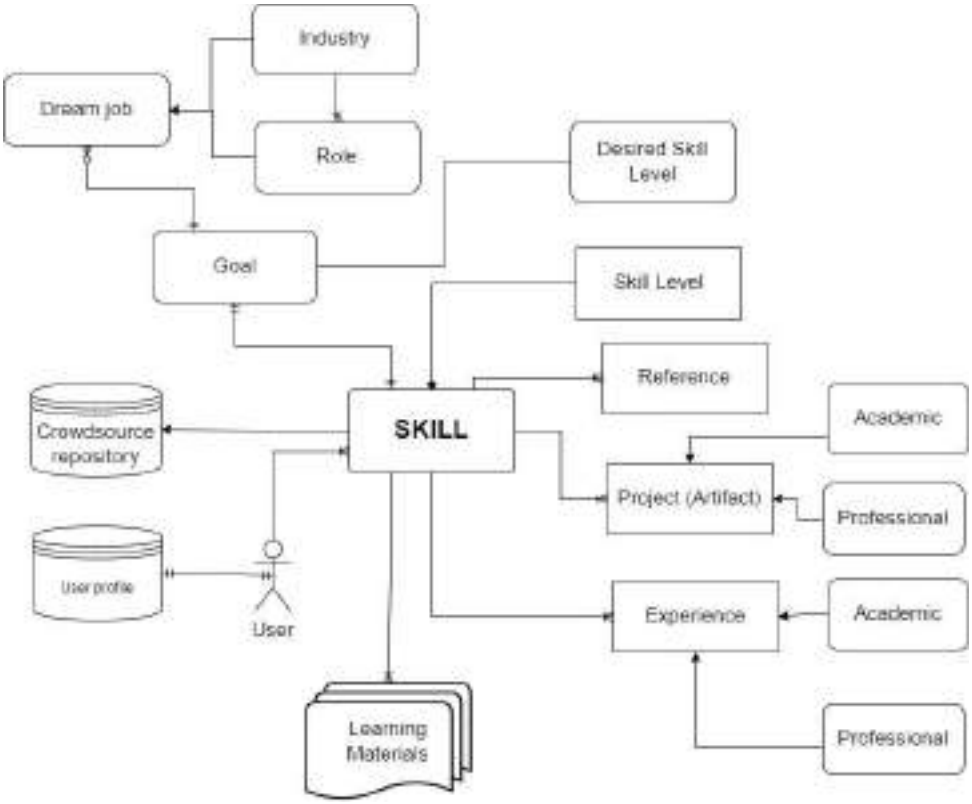



Figure 8: GES App – conceptual model

The concept of **Skill** and related components for the purpose of reflection and skill assessment have been defined earlier in Chapter 3. The other components of conceptual framework of the GES App, such as Goal and Dream Job, to support skill development process, are defined as follow:

**Goal**: A “goal” (for a user) consists of one or more skills user wants to acquire or user can also define goals as level of skill, user want to achieve for existing skills for showing competency in skill.

**Dream Job**: A “Dream Job” is defined as the role that the wants to achieve in a particular industry. A “Dream Job” also enables a user to determine their goals.

**Role**: A “Role” represents a specific type of job or a position in a company or any institution that the user aim for. The GES App shall contain a set of pre-defined “Roles” in selected industries, which are available to the user to select from, when they define a Dream Job. In the O4: Content Development, of the project number of industries are searched for desired roles for user

**Industry:** The GES App contains a set of pre-defined industries, which are available to the user to select from, when they define a “Dream Job”.

**Skills Gap:** For each skill, the difference between the present skill level and the desired skill level enables user to determine the “Skill Gap” [10]. Skill gap can also be determined as the absence of skill from skill profile to match the dream job requirements.

**Learning Material** (referred to in the document also as Learning Resources): Each skill can have one to many learning resources that can be accessed by users, which will help them to improve the knowledge of a specific skill supporting the skill development process. Learning resources can be of different types such as a mini game, a document, a video, or a link to an external source, e.g., YouTube video.

## 4.1 Personalisation and concept of coach

Personalisation of an app is the process of building a mobile app that offers user experiences based on customised needs of users. Research has established that personalisation offers a technology independent and pervasive solution for positive behaviour change in user and user maintenance over a long period of time. [11]. The framework used for app personalisation is shown in Figure 9.


Figure 9: Home screen framework for personalisation

For personalisation experience, the concept of a personal coach is introduced where users are able to select their coach and the concept of coach is explained in section 4.1.2. The first step in the process is that user is registered in the GES App and a user profile is created.

### 4.1.1 User Registration

All new users must register in the GES App, using one of the following options: Google, Apple, Facebook, and Twitter as visible in Figure 10. When a new user registers, a **user profile** is created with basic information retrieved by app as per the sign-in method used. For registration, the basic user information required is:

- Username
- Email address
- Password
- User Type /role (student, jobseeker, academic, Admin)

**Mock-up for registration page**


Figure 10: Login screen mock-up

The user is required to complete the following three tasks at the time of registering:

1. Register by providing the mandatory profile information.
2. Personalise by choosing a Coach.
3. Complete Skills Assessment (Activity 1).

### 4.1.2 Coach concept

The concept of "coach" is used in the GES App to enhance the aspect of customisation, personalisation, and interactivity in the GES App. In addition, the coach can be used to motivate the user, e.g., related to the gamification elements and communicating the feedback as encouragement to the user. A user must be registered to select a coach as visible in Figure 11 .

The main objectives of the "coach" in the GES App are:

- To enable user to customise the mood of app as per their own feelings.
- To facilitate app navigation.
- To enable user to monitor their progress and per day activity.
- To facilitate a friendly user interface for users.

For these purposes, 6 different personalities of coaches have been introduced in the GES App design that can tailor navigation of the GES App as per feelings defined by the users and defined in Table 2 .

| **Coach personality** | **Coach characteristics** | **User feelings** |
|---|---|---|
| Calm Clarice | Focused on the calm aptitude<br>Do not rush things<br>One step at one time | • Anxious<br>• Curious<br>• Excited<br>• Lost<br>• Proud<br>• Tired |
| Funny Fabio | Happy go lucky attitude<br>Lifting up the mood<br>Integrating ambition with fun | |
| Optimistic Alan | Positive attitude<br>Suggestion for improvements | |
| Enthusiastic Emily | Passionate<br>Pursuing for goals<br>"Let's do it" attitude | |
| Ambitious Fred | Pursuing towards ultimate goal (Dream job)<br>Suggestions for improvement<br>New goals | |
| Logical Sam | Suggestion for next step | |

| | | |
|---|---|---|
| | Suggestion goals considering the present state | |

Table 2: Coach personalities and characteristics

**Selecting a Coach**

A user shall be able to select a coach to personalise the GES App.


Figure 11: Personalisation- Selecting a Coach

Once a coach is selected by the user, the coach starts dialogue with the user by asking the user how they feel. An example of how this could be done are shown in Figure 12. The coach asks the user how they are feeling; the user can select from a number of pre-defined feelings. Depending on the feeling indicated by the user, the Coach shall provide some feedback to the user as seen in Figure 13.

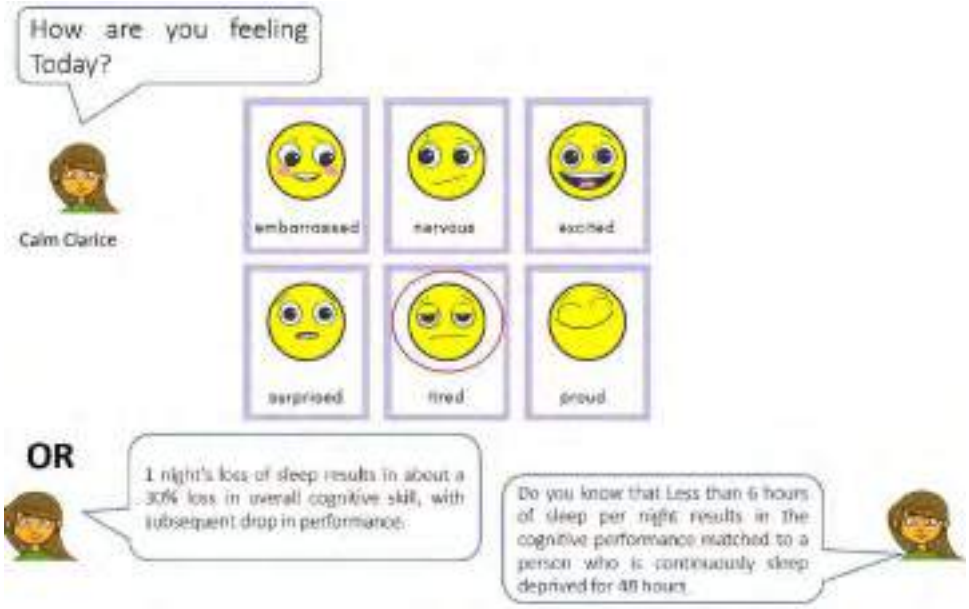



Figure 12: Concept of coach interaction

**Mock-up for personalisation using coach**

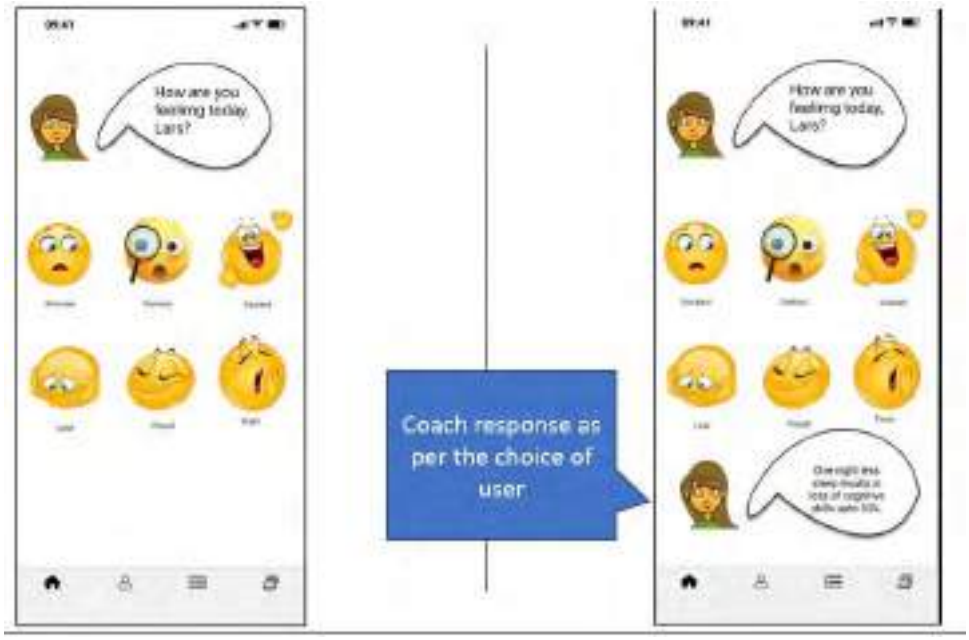



Figure 13: Mock-up for coach in app

# 5 GES Mobile Application Design

The two main goals of the GES App identified in the initial phases of the project are developing an app that facilitate for:

1. **Skills identifier**

   Students will be encouraged to reflect on skills they developed, how these skills were acquired, and how they can be evidenced.

2. **Personal Development Plan (PDP) exercises (tasks)**

   Students shall be able to engage in activities that help them to identify their interests, strengths, and weaknesses and ways in which they can improve their marketability and acquire specific employability skills which they feel they are missing following the methods of PDP training.

To achieve these goals the functionalities of the GES App are identified in the terms of activities and sub-activities that are explained with the help of user journey, details of the sub-activities and their mock-ups. The activity or sub-activity is conceptualised using user journey from the user perspective. The mapping of activity through user journey is translated into detail steps to define activity process which are then designed using mock-ups in Figma.

**User Journey**

The user journey is defined as the process the user goes through, across all stages and touchpoints with an organisation, comprising the user experience [8]. We have used user journey blueprints for the application to identify important touchpoints. The user journey blueprint depicts how user can perform different activities using app while interacting with crowdsource repository.

**How to read through design?**

*The steps include in the detail process of sub-activities corresponds to the touchpoints identified in the user journey and numbered in the sequence the process should be performed. All the steps are depicted through mock-ups of the sub-activities and include description of the process as points with numbers that corresponds to the steps identified in detail steps of sub-activities (above row of mock-ups).*

The details of all activities and sub activities are defined below:

## 5.1 Activity 1 - Self-reporting GESs

The first activity identified is self-reporting graduate employability skills through app and based on the central component of the conceptual framework that is Skill and skill evidence [5]. This This activity is defined with aim to enable users:

- Explore/identify the acquired employment skills through self-reflection process.
- Would likely to be used iteratively with activity 2, so could develop if users changed their employment goal/focus.
- Prompt to input evidence (experience, artefacts, references) at different time points and relating to their goals/reflective exercises.
- Skill assessment by the user.
- Update existing skills or input new skills as they progress in university or industry.


Figure 14: Activity1 and supporting activities

The sub-activities identified for this activity are shown in Figure 14. For the self-assessment part, the GES App will allow user to:

- Add a new skill.
- Select skill from repository.
- Check if the skill exists,
    - if skill exists, select skill from repository and ad experience, level of skill, reference, project, etc.

- if skill does not exist in repository, add skill, define if the skill should be shared with the GES App's common repository or kept in the personal repository.
  -Update user profile by adding the new skill.

- Update a previously added skill (skill is already in the user's profile). Updating is done by editing the components of a skill.
- Access the skills list (e.g., through a list, the overview of skills cards).
- Select the relevant skill.
- Add a new experience.
- Change the level (e.g., change 2 stars to 3 stars) of skill.
- Add a new reference.
- Add a new artifact as skill evidence.
- Remove a skill from the list of skills associated to the user.
- Delete the skill (including all its components).
- Prompt user for a confirmation,
  - if YES, delete skill and its components. If NO, do not make any changes.

**Prerequisites**

1. User should be registered in the GES App.
2. User profiles exist.
3. User can be student or job seeker or employee.

**Benefits to Users**

1. User will be able to record known skill.
2. User will be able to record evidence to the skill in terms of experience, artifact, and reference.
3. User will be able to evaluate skill through reflection questions.
4. User can share new skill to repository.
5. Through skill assessment user will be able to evaluate skill.

The objectives of the Activity 1 are supported by the highlighted functionalities in app design as show in Figure 15:


Figure 15: Sub-activities supporting Activity1

The detailed design of the sub activities in Activity1 are defined with the help of user journey and mock-ups below:

### 5.1.1 Add Skill activity

This sub-activity allows user to add skills to the user profile. The activity facilitate user to reflect on the skill and define skill level in terms of “Expert”, “Proficient”, “Competent”, “Advanced beginner” and “Novice”. This activity also enable user to search for the skill from skill repository and allow them to add skill to the skill repository if not present. User will also be able to view the skill profile with details of added skills and can also sort recorded skills in terms of level, experiences, artifacts, and references. The user journey from the perspective of user for this activity is shown in Figure 16.

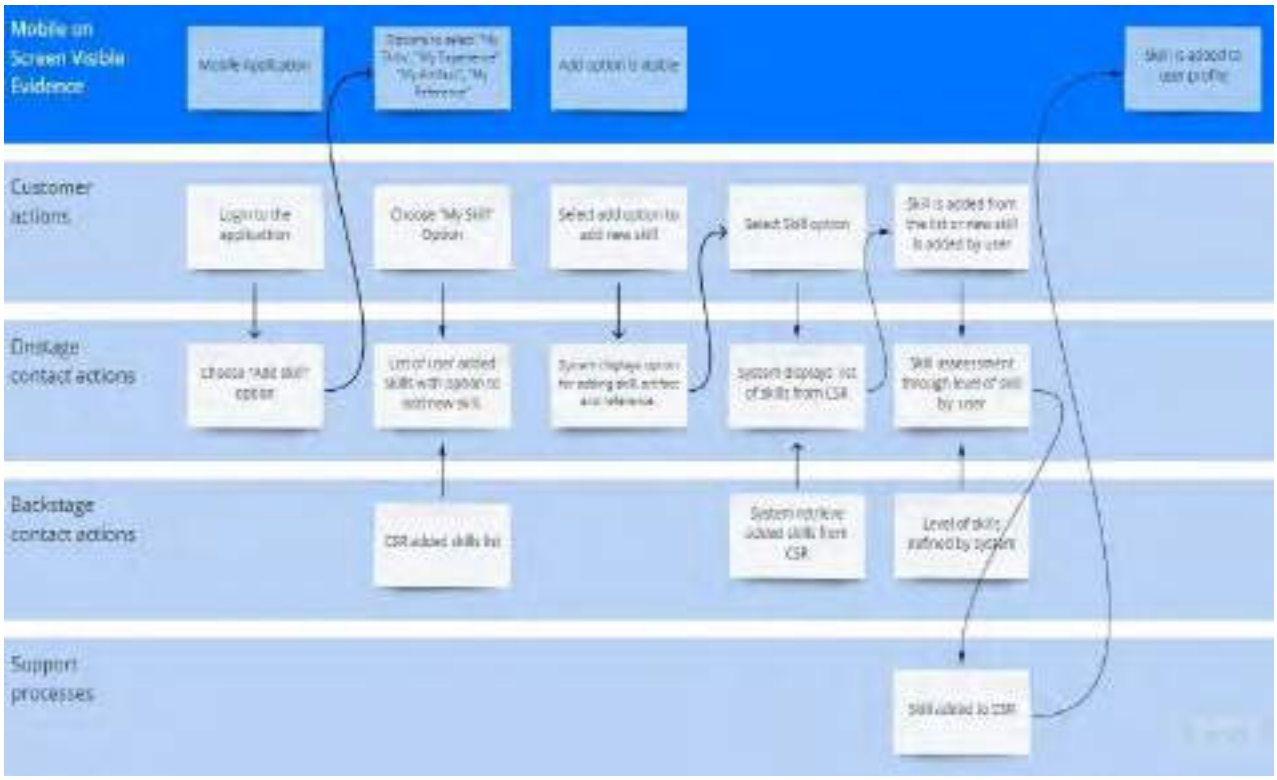



Figure 16: User Journey for Activity1 and sub-activity of Add Skill

The detailed steps in the light of user journey for add skill activity are defined in Table 3.

| **Sub Activity: Adding Skill** | |
|---|---|
| **Priority:** High | |
| **Actors:** Students, Jobseekers, Graduates | |
| **Sub-Activity Summary** | User will be able to add skill to the personal profile and crowdsource repository if desire while assessing the skill level. |
| **Pre-condition:** | User must be registered to the system as student or job seeker.<br>User must have selected preferred coach.<br>User must have selected option for how user feel. |
| **Normal Course of Events** | **Alternate Path** |
| 1. User selects option of “Add Skills” from the activity menu. [User Action] | |
| 2. System will display options for “My Skills”, “My experiences”, “My artifacts” and “My references”. [Onstage contact actions] | |

| | |
|---|---|
| 3. User selects option of “My Skills”. [User action] | |
| 4. System will display list of added skills and option “+” for adding new skills. [On stage contact action] | |
| 5. User selects “Add option”. [User action] | |
| 6. System displays options for adding “Skill”, “Experience”, “Artifact” and “Reference”. [On stage contact action] | |
| 7. User selects option for adding “Skill”. [User action] | |
| 8. System shall display list of skills from Crowdsource repository and option for search skills. [Onstage contact Action] | |
| 9. User selects skill from the list. [User Action] | 9 a. User search for skill in crowdsource repository. [User Action] |
| 10. | System displays no results. [Onstage contact Action] |
| 11. | User selects option of “Add” [User Action] |
| 12. | System displays options for sharing new skill to repository as “Yes, I would like to contribute!” or “No, thank you.” [Onstage contact Action] |
| 13. | User can select any option. [User Action] |
| 14. System will ask for input to assess skill level by displaying options “Novice”, “Advanced beginner”, “Competent”, “Proficient” and “Expert.” Or “Not Sure”. [Onstage Contact Action] | |
| 15. User chooses level of skill from given options. [User Action] | 15 a. User can select option of “Not sure” [User Action] |
| 16. | System shall display explanation of levels to assess skills [Onstage Contact Action] |
| 17. System display option for sharing skill acquisition to the crowdsource repository. [Onstage Contact Action] | |
| 18. User can select “Yes I would like to contribute” or “No Thank you”. [User Action] | |
| 19. System displays options for adding “Experience”, “Artifact” and “Reference” as evidence for the acquired skill. [Onstage Contact Action] | |

| Post Conditions |
|---|
| • Skill is added to the profile.<br>• New skill is added to crowdsource repository.<br>• User will be able to add evidence to the skill added to the profile. |

Table 3: Detail steps for sub activity Add Skill of Activity 1

The detail design of the sub-activity for add skill is depicted through mock-ups and mapped to, the activity details above as shown in Figure 17.

| | | | |
|---|---|---|---|
| 1. User selects option of "Add Skills" from the activity menu. [User Action] | 2. System will display options for "My Skills", "My experiences", "My artifacts" and "My references". [On stage contact actions]<br>3. User selects option of "My Skills". [User action] | 4. System will display list of added skills and option "+" for adding new skills. [On stage contact action]<br>5. User selects add option. [User action]<br>6. System displays options for adding "Skill", "Experience", "Artifact" and "Reference". [On stage contact action]<br>7. User selects option for adding "Skill". [User action] | 8. System shall display list of skills from Crowdsource repository and option for search skills. [Onstage contact Action]<br>9. User selects skill from the list. [User Action] ***OR***<br>9 a. User search for skill in crowdsource repository. [User Action]. |
|  |  |  |  |
| 10. System displays no results. [Onstage contact Action]<br>11. User selects option of "Add" [User Action] | 12. System displays options for sharing new skill to repository as "Yes, I would like to contribute!" or "No, thank you." [Onstage contact Action]<br>13. User can select any option. [User Action] | 14. System will ask for input to assess skill level by displaying options "Novice", "Advanced beginner", "Competent", "Proficient" and "Expert." Or "Not Sure". [Onstage Contact Action]<br>15. User chooses level of skill from given options. [User Action] | 17. System display option for sharing skill acquisition to the crowdsource repository. [Onstage Contact Action]<br>18. User can select "Yes I would like to contribute" or "No Thank you". [User Action] |

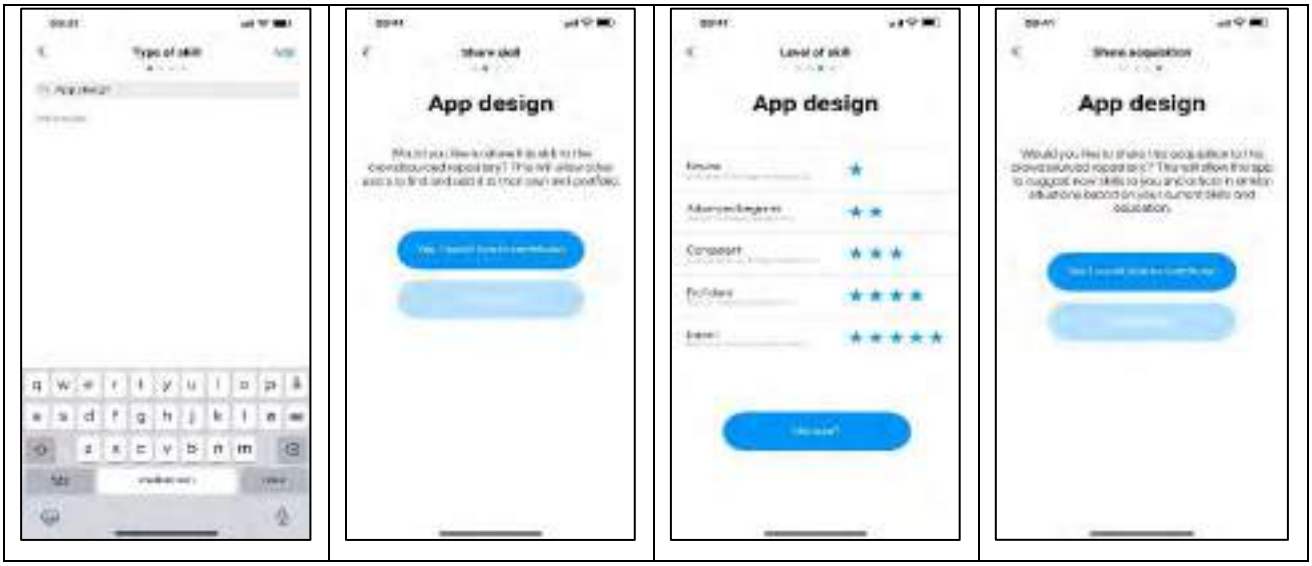



Figure 17: Mock-ups for Add Skill Activity from Figma prototype for sub activity of Add Skill of Activity 1

The add skill activity is supported by sub-activity of searching skill through skill repository. This activity enable user to search for skills through skill repository integrated with the GES App. With skill repository users can search for skills, add new skills if not present in repository and also can get basic information regarding what the skill is about. The detail steps of searching skill through repository are shown in Table 4.

| **Sub Activity: Adding skill from repository** | |
|---|---|
| **Priority:** Medium | |
| **Actors:** Students, Jobseekers, Graduates | |
| **Sub-Activity Summary** | User will be able to add skill to user profile from crowdsource repository while assessing the skill level. |
| **Pre-condition:** | User must be registered to the system as student or job seeker.<br>User must have selected preferred coach.<br>User must have selected option for how user feel. |
| **Normal Course of Events** | **Alternate Path** |
| 1. User selects option of “Add Skills” from the activity menu. [User Action] | |

| | |
|---|---|
| 2. System will display options for “My Skills”, “My experiences”, “My artifacts” and “My references”. [Onstage contact actions] | |
| 3. User selects option of “My Skills”. [User action] | |
| 4. System will display list of added skills and option “+” for adding new skills. [Onstage contact action] | |
| 5. User selects “+” option for adding. [User action] | |
| 6. System displays options for adding “Skill”, “Experience”, “Artifact” and “Reference”. [Onstage contact action] | |
| 7. User selects option for adding “Skill”. [User Action] | |
| 8. System shall display list of skills from Crowdsource repository and option for search skills. [Onstage contact action] | |
| 9. User selects skill from the list. [User Action] | |
| 10. System displays” Glossary” for user to get more information about skill. [Onstage Contact Action] | |
| 11. User selects skill from the list to obtain more information. [User Action] | |
| 12. System displays skill definition along with examples that may include links to external resources or related multimedia with information. System displays button with option to add skill to user portfolio. [Onstage Contact Action] | |
| 13. User selects option of “Add this skill to my portfolio”. [User Action] | |
| 14. System will ask for input to assess skill level by displaying options “Novice”, “Advanced beginner”, “Competent”, “Proficient” and “Expert.” Or “Not Sure”. [Onstage Contact Action] | |
| 15. User chooses level of skill from given options. [User Action] | 15 a. User can select option of “Not sure” [User Action] |
| 16. | System shall display explanation of levels to assess skills [Onstage Contact Action] |
| 17. System display option for sharing skill acquisition to the crowdsource repository. [Onstage Contact Action] | |

| | |
|---|---|
| 18. User can select “Yes I would like to contribute” or “No Thank you”. [User Action] | |
| **Post Conditions** | |
| • Skill is added to the profile.<br>• User has clear understanding of what skill is added to the portfolio. | |

Table 4: Activity details for using skill repository for adding skill in Activity 1.

The details for using skill repository documented above are designed in Figma generating mock-ups as shown in Figure 18.

| | | | |
|---|---|---|---|
| 1.User selects option of "ADD SKILLS" … menu. [User Action]<br>**2.** System will display options …. and "My references". [Onstage contact actions]<br>**3.** User selects option of "My Skills". [User action]<br>4. System will display list … "+" for adding new skills. [Onstage contact action]<br>**5.** User selects add option. [User action]<br>**6.** System displays options for adding "Skill", …, and "Reference". [Onstage contact action]<br>**7.** User selects option for adding "Skill". [User Action]<br>8.System shall display list … for search skills. [Onstage contact action]<br>**9.** User selects skill from the list. [User Action] | **10.** System displays" Glossary" for user to get more information about skill. [Onstage Contact Action]<br>11. User selects skill from the list to obtain more information. [User Action] | **12.** System displays skill definition along with examples that may include links to external resources or related multimedia with information. System displays button with option to add skill to user portfolio. [Onstage Contact Action]<br>13.User selects option of "Add this skill to my portfolio". [User Action] | 14. System will ask for input to assess skill level … and "Expert." Or "Not Sure". [Onstage Contact Action]<br>15. User chooses level of skill from given options. [User Action]<br>**17.** System display option for sharing skill … crowdsource repository. [Onstage Contact Action]<br>18. User can select "Yes I would like to contribute" or "No Thank you". [User Action] |
| **Mocks- ups from steps 1 – 9 same as in Figure 17** |  |  | **Mocks- ups from steps 14 – 18 same as in Figure 17** |

Figure 18: Mock-ups for using skill repository as designed in Figma prototype for sub activity of Add Skill of Activity 1

The skills recorded by user are stored within the user profile and can be viewed as "My Skills" in the GES App design. The process to get an overview of skill recorded within the GES App are defined in Table 5.

| Sub Activity: Overview of added skills | | |
|---|---|---|
| **Priority:** Medium | | |
| **Actors:** Students, Jobseekers, Graduates | | |
| **Sub-Activity Summary** | User will be able to view all the skills added to the user profile and sort them as preferred. | |
| **Pre-condition:** | User must be registered to the system as student or job seeker.<br>User must have selected preferred coach.<br>User must have selected option for how user feel.<br>User should have added skills to the profile or repository. | |
| **Normal Course of Events** | | **Alternate Path** |
| 1. User selects "My Skills" option at home page. [User Action] | | |
| 2. System displays option for sorting skill in drop down list in terms of "Level", "Experiences", "Artifacts" and "References". [Onstage Contact Action] | | |
| 3. User selects the preferred option from the list. [User Action] | | |
| 4. System displays list of skills saved in user profile with information regarding number of experiences, artifacts and level. [Onstage Contact Action] | | |
| 5. User selects skill from list for the list details. [User Action] | | |
| 6. System displays options to view the details of skill that is "Experiences"," Artifacts" and "References". [Onstage Contact Action] | | |
| 7. User selects the option to view the selected detail of the skill. [User Action] | | |
| 8. System displays user profile with details of all experiences and user portfolio defined by artifacts recorded. [Onstage Contact Action] | | |
| **Post Conditions** | | |
| • Users have overview of all the skills saved in the user profile. | | |

Table 5: Process details to have overview of stored skills

The Figma prototype design is mapped with the process as defined in Table 5 and mock-ups from the prototype are shown in Figure 19**Error! Reference source not found.**.

| | | |
|---|---|---|
| 1. User selects “My Skills” option at home page. [User Action] | 2. System displays option for sorting skill in drop down list in terms of “Level”, “Experiences”, “Artifacts” and “References”. [Onstage Contact Action]<br>3. User selects the preferred option from the list. [User Action] | 4. System displays list of skills saved in user profile with information regarding number of experiences, artifacts, and level. [Onstage Contact Action]<br>5. User selects skill from list for the list details. [User Action] |
|  |  |  |
| 6.System displays options to view the details of skill that is “Experiences”,” Artifacts” and “References”. [Onstage Contact Action]<br>7. User selects the option to view the selected detail of the skill. [User Action] | 8. System displays user profile with details of all experiences and user portfolio defined by artifacts recorded. [Onstage Contact Action] | |

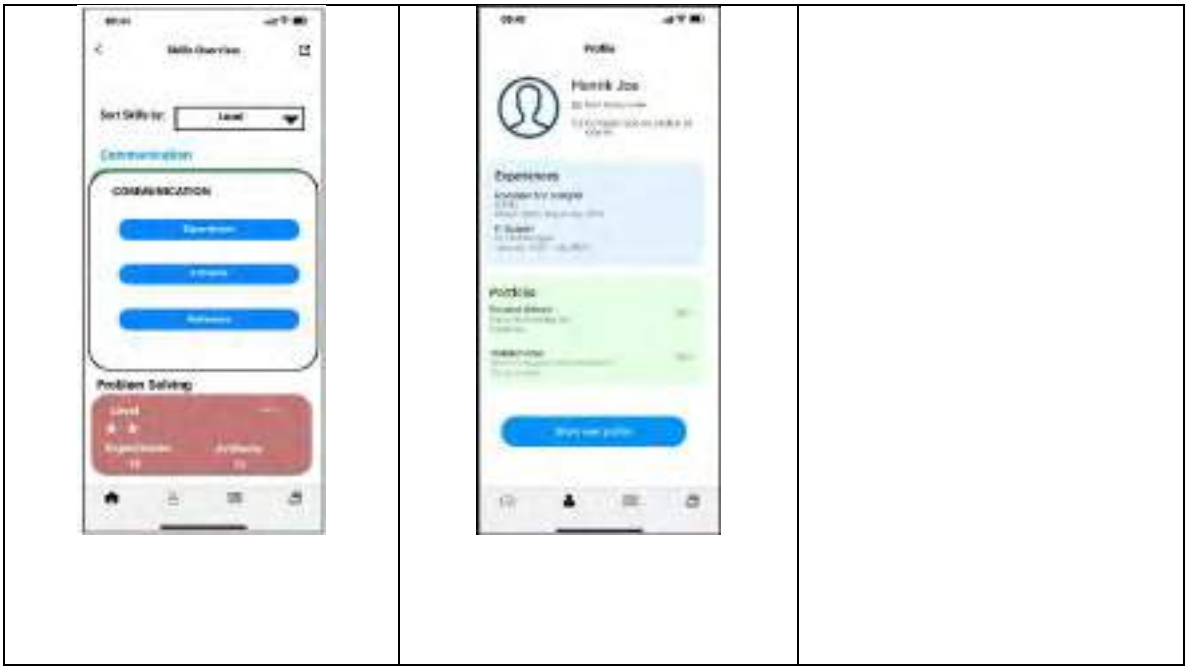


Figure 19: Skill overview mock-ups as designed using Figma for Activity 1.

### 5.1.2 Adding evidence in form of experience, artifact, and reference

This sub-activity allows user to support the added skills with evidence with the help of “Experiences”, “Artifacts” and “References”. The experience recorded by user can be academic in terms of course work or practical in terms of job, projects, etc. One important aspect of this activity is to assess the experience through reflective questions in terms of commitment, teamwork, team process, leadership, and accountability. Reflection made by user on experience can help user to assess the experience which is translated into numeric values accordingly. The sub- activity also allow user to document the evidence for experience as artifact and reference. The artifact is any type of work done by user or output of experience that can be uploaded or saved as the user portfolio and evidence of the skill. Reference is also important evidence that can be used to support the skill same as used in job resume or CV. Though user can save any reference from academic to professional personal however, user is responsible for the permission of reference to be used in the skill profile.

The sub-activity of adding skill evidence is defined with help of user journey to support designing of the activity through Figma prototype as shown in Figure 20.


Figure 20: User journey for adding evidence to skill with GES app for Activity 1.

In the light of user journey, the process of adding experience for the one or more skill with the duration in which it was acquired along with evaluation of experience is defined in Table 6.

| **Sub Activity: Adding experience to new or added skill to user portfolio** | |
|---|---|
| **Priority:** Medium | |
| **Actors:** Students, Jobseekers | |
| **Sub-Activity Summary** | User will be able to add experience to the new or added skill to user profile as evidence to the skill. |
| **Pre-condition:** | User must be registered in the GES App as a student or a job seeker.<br>User must have selected preferred coach.<br>User must have selected option for how a user feels.<br>User should have either skill added to profile or should have added new skill to profile. |
| **Normal Course of Events** | **Alternate Path** |

| | |
|---|---|
| 1. System will display options for “My Skills”, “My experiences”, “My artifacts” and “My references”. [Onstage Contact Action] | |
| 2. User selects “My experiences” option. [User Action] | 2 a. User selects option of “My Skills”. [User action] |
| 3. | System will display list of added skills and “+”. [Onstage contact action] |
| 4. | User selects “+” option to add experience for one or more skills. [User Action] |
| 5. | System displays options for “What would you like to add?” with options for skill, “Experience”, “Artifact”, and “Reference”. [Onstage Contact Action] |
| 6. | User selects option for adding “Experience”. [User Action] |
| 7. System displays experiences added and option for “Add experience”. [Onstage Contact Action] | |
| 8. User selects ”Add experience” option. [User Action] | |
| 9. System displays input fields for adding start date and end date of experience. [Onstage Contact Action] | |
| 10. System displays the list of skills added and allow user to choose skills supported by experience. [Onstage Contact Action] | |
| 11. User selects skill (s) from the list and click “Continue”. [User Action] | |
| 12. System displays option for the source of experience that is either “academic” or “practical”. [Onstage Contact Action] | |
| 13. User selects option of academic. [User Action] | 13a. User selects option for “practical”. [User Action] |
| 14. System displays list of possible relevant courses saved by user in profile. [Onstage Contact Action] | |
| 15. System displays input option for user to enter brief description of the experience. [Onstage Contact Action] | |
| 16. User enters details for the experience and selects continue. [User Action] | |
| 17. System displays input field for the role of user in the experience. [Onstage Contact Action] | |

| | |
|---|---|
| 18. User provides input for the role he had during the experience and selects continue. [User Action] | |
| **Self-assessment of experience added with respect to different skills.** | |
| 19. System enable user to assess experience in terms of “Commitment to role”, “Teamwork”, “Team leadership”, “Team process”, “Accountability”, “Communication”, and “Cooperation”. The user can assess the skills with 5 scale metrics which ranges from “Not at all” option to “very good”. [Onstage Contact Action] | |
| 20. User self-assess experience by giving input and selects “Continue”. [User Action] | |
| 21. System displays option for user to add comments to the recorded experience. [Onstage Contact Action] | |
| 22. User input comments or additional information for the experience. [User Action] | |
| 23. System displays an overview of added experience and skills supported by the experiences added. [Mobile Onscreen Evidence] | |
| **Post Conditions** | |
| • Experience is added to the profile of user.<br>• Experience is added to the skills user gained during the process and added to the profile. | |

Table 6: Process of adding experience to the skill(s) of sub activity Add Experience of Activity 1.

The prototype designed for Add Experience sub-activity as evidence to skill guided by process identified above is shown with mock-ups in Figure 21.

| | | | |
|---|---|---|---|
| 1.System will display options for “My Skills”, “My experiences”, “My artifacts” and “My references”. [Onstage Contact Action]<br>2.User selects “My experiences” option. [User Action]<br>2 a. User selects option of “My Skills”. [User action]<br>3.System displays list of added skills and “+”. [Onstage contact action] | 5.System displays options for “What would you like to add?” with options for skill, experience, artifact, and reference. [Onstage Contact Action]<br>6.User selects option for adding “Experience”. [User Action] | 7.System displays experiences added and option for “Add experience”. [Onstage Contact Action]<br>8.User selects “Add experience” option. [User Action] | 9. System displays input fields for adding start date and end date of experience. [Onstage Contact Action] |

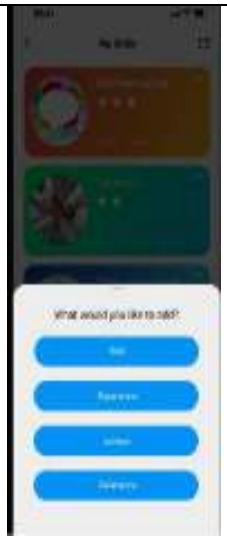
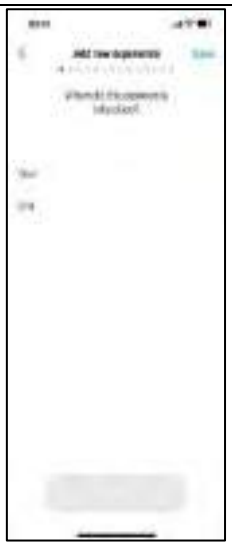
| | | | |
|---|---|---|---|
| 4.User selects “+” option to add experience for one or more skills. [User Action] | | | |
|  |  |  |  |
| 9. user action : input start date | 9. user action : input end date | 9. user action : input end date | 9. onstage action: start and end date added |
|  |  |  |  |
| 10. System displays list of skills added and allow user to choose skills supported by experience. [Onstage Contact Action]<br>11. User selects skill (s) from the list and click “continue”. [User Action] | 12. System displays option for the source of experience that is either “academic” or “practical”. [Onstage Contact Action]<br>13. User selects option of academic. [User Action] | 14. System displays list of possible relevant courses saved by user in profile. [Onstage Contact Action] | 15. System displays input option for user to enter brief description of the experience. [Onstage Contact Action] |

Figure 21: Mock-ups for add experience activity from Figma prototype

Along with adding experience to the skill the activity is also designed for purpose of self-assessment of experience through reflection questions. The mock-ups for the activity are mapped to the process defined above and shown in Figure 22.

| 16. User enters details for the experience and selects continue. [User Action] | 17. System displays input field for the role of user in the experience. [Onstage Contact Action] | 18. User provides input for the role he had during the experience and selects continue. [User Action] | 19. System enables user to assess experience in terms of commitment to role, teamwork, team leadership, team process, accountability, communication, and cooperation. The user can assess the skills with 5 scale metrics which ranges from “Not at all” option to “very good”. [Onstage Contact Action] |
|---|---|---|---|
|  |  |  |  |

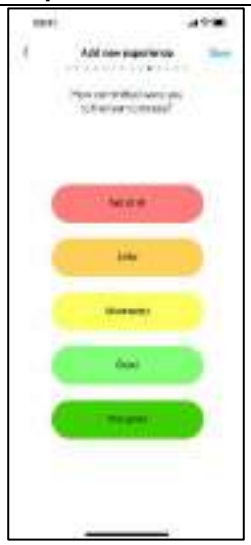
| | | | |
|---|---|---|---|
| 19. System enables user to assess experience in terms of commitment … skills with 5 scale metrics which ranges from “Not at all” option to “very good”. [Onstage Contact Action] | 19. System enables user to assess experience in terms of commitment … skills with 5 scale metrics which ranges from “Not at all” option to “very good”. [Onstage Contact Action] | 19. System enables user to evaluate experience in terms of commitment … skills with 5 scale metrics which ranges from “Not at all” option to “very good”. [Onstage Contact Action] | 19. Systems enable user to assess experience in terms of commitment … skills with 5 scale metrics which ranges from “Not at all” option to “very good”. [Onstage Contact Action] |
|  |  |  |  |
| 20. User self-assess experience by giving input and selects continue. [User Action] | 21. System displays option for user to add comments to the recorded experience. [Onstage Contact Action]<br>22. User input comments or additional information for the experience. [User Action] | 23. System displays an overview of added experience and skills supported by the experiences added. [Mobile Onscreen Evidence] | *Process output:* [Mobile onscreen visible evidence]: Experience added as evidence. |
|  |  |  |  |

Figure 22: Mock-ups for self-assessment of experience through questions for sub activity of Add Experience within Activity 1.

The second evidence according to the conceptual framework is adding artifact to the skill. The artifact is output from any experience that can be documented as various multimedia files and can be saved to profile. The process of adding artifact to the skill is defined in Table 7.

| **Sub Activity: Adding artifact to the skill added to user profile** | |
|---|---|
| **Priority:** Medium | |
| **Actors:** Students, Jobseekers | |
| **Sub-Activity Summary** | User will be able to add artifact in form of different multimedia files to the user profile as evidence for the skill acquired and can be output of an experience. |
| **Pre-condition:** | User must be registered to the system as student or job seeker.<br>User must have selected preferred coach.<br>User must have selected option for how user feel. |
| **Optional Pre-condition:** | User may have skill added to repository or should have added new skill to repository.<br>User selects "Add Skills" option from main menu or user has added new skill to the profile with which system has provided option to add artifact for the skill added. |

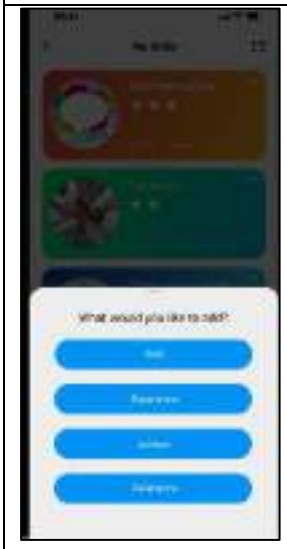
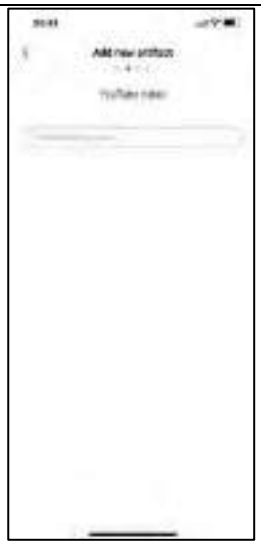
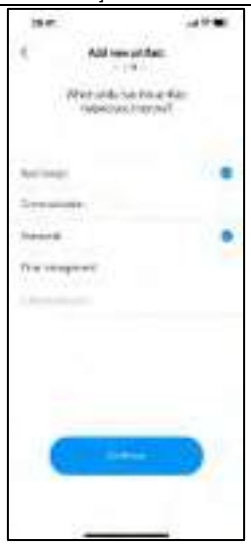
| **Normal Course of Events** | **Alternate Path** |
|---|---|
| 1. System will display options for "My Skills", "My experiences", "My artifacts" and "My references". [Onstage Contact Action] | |
| 2. User selects "My artifacts" option. [User Action] | 2 a. User selects option of "My Skills". [User action] |
| 3. | System will display list of added skills and option "+". [On stage contact action] |
| 4. | User selects "+" for adding. [User action] |
| 5. | System displays options for "What would you like to add?" with options for skill, experience, artifact, and reference. [Onstage Contact Action] |
| 6. | User selects option for adding "Artifact". [User Action] |
| 7. System displays added artifacts and option to add new artifact. [Onstage Contact Action] | |
| 8. User selects "Add Artifact" option. [User Action] | |

| | |
|---|---|
| 9. System displays options to add artifacts as “Document”, “Image”, “Link”, “Repositor”, “YouTube Video” or “Note” files. [Onstage Contact Action] | |
| 10. User selects the required file format. [User Action] | 10 a. User selects option of “YouTube Video” or “Link”. [User Action] |
| 11. System displays option to upload file to user profile. [Onstage Contact Action] | 11 a. System displays option to add URL of resource. [Onstage Contact Action] |
| 12. | User provides input to the source file with link. [User Action] |
| 13. | System displays options to add Name to the file along with comments. [Onstage Contact Action] |
| 14. | User adds name of source file and some information regarding the file (Video or link to website) and selects continue. [User Action] |
| 15. System displays option for user to choose what skills (from profile), user has improved with the added artifact. [Onstage Contact Action] | |
| 16. User selects the relevant skills and selects continue. [User Action] | |
| 17. System displays option for user to link artifact with added experience. [Onstage Contact Action] | |
| 18. User selects relevant experience for artifact and selects continue. [User Action] | |
| 19. System displays the artifact added to user profile. [Onstage Contact Action] | |
| **Post Conditions** | |
| • Artifact is added to the profile of user.<br>• Artifact is linked to the skills user gained along with experience the artifact can be relevant to. | |

Table 7: Details steps for the process of adding artifact to the skill for sub activity of Add Artifact in Activity 1.

The mock-ups for adding artifact to the skill is designed as Figma prototype and shown as mock-ups in Figure 23.

| | | | |
|---|---|---|---|
| 1 System will display options for “My Skills”, “My experiences”, “My artifacts” and “My references”. [Onstage Contact Action] | 2 a. User selects option of “My Skills”. [User action]<br>3.System will display list of added skills and option “+”. [On stage contact action] | 9. System displays options to add artifacts as “Document”, “Image”, “Link”, “Repositor”, “YouTube Video” or “Note” files. [Onstage Contact Action] | 10 a. User selects option of “YouTube Video” or “Link”. [User Action]<br>Action] |

| | | | |
|---|---|---|---|
| 2.User selects “My artifacts” option. [User Action] | 4.User selects “+” option for adding. [User action]<br>5. System displays options for “What would you like to add?” with options for skill, experience, artifact, and reference. [Onstage Contact Action]<br>6. User selects option for adding “Artifact”. [User Action] | 10. User selects the required file format. [User Action]: YouTube in mock-up | 11 System displays option to add URL of resource. [Onstage Contact Action] |
|  |  |  |  |
| 12.User provides input to the source file with link. [User Action] | 13. System displays options to add Name to the file along with comments. [Onstage Contact Action]<br>14. User adds name of source file and some information regarding the file (Video or link to website) and selects continue. [User Action] | 15.System displays option for user to choose what skills (from profile), user has improved with the added artifact. [Onstage Contact Action]<br>16. User selects the relevant skills and selects continue. [User Action] | 17. System displays option for user to link artifact with added experience. [Onstage Contact Action]<br>18. User selects relevant experience for artifact and selects continue. [User Action] |
|  |  |  |  |

| | | | |
|---|---|---|---|
| 19. System displays the artifact added to user profile. [Onstage Contact Action] | *Process output:* [Mobile onscreen visible evidence]: Artifact added as evidence to skill. | | |
|  |  | | |

Figure 23: Mock-ups for adding artifacts to the skill as sub-activity of Activity 1.

For adding reference of the contact person that can verify the skill or skill set, the process is defined in Table 8.

| Sub Activity: Adding reference to the skill added to user profile | |
|---|---|
| **Priority:** Medium | |
| **Actors:** Students, Jobseekers | |
| **Sub-Activity Summary** | User will be able to add reference to the user profile as evidence for the skill acquired and can be relevant to recorded experience. |
| **Pre-condition:** | User must be registered to the system as student or job seeker.<br>User must have selected preferred coach.<br>User must have selected option for how user feel.<br>User must have added skills or selects "Add Skills" option from main menu to add new skill to the profile with which system has provided option to add reference for the skill added. |

| Normal Course of Events | Alternate Path |
|---|---|
| 1. System will display options for "My Skills", "My Experiences", "My Artifacts" and "My References". [Onstage Contact Action] | |
| 2. User selects "My References" option. [User Action] | 2 a. User selects option of "My Skills". [User action] |
| 3. | 3a. System will display list of added skills and option "+". [Onstage contact action] |
| 4. | 4a. User selects "+" add option. [User action] |
| 5. | 5a. System displays options for "What would you like to add?" with options for skill, experience, artifact, and reference. [Onstage Contact Action] |
| 6. System displays added references and option to "Add" new reference. [Onstage Contact Action] | 6a. User selects option for adding "Reference". [User Action] |
| 7. User selects "Add Reference" option. [User Action] | |
| 8. System displays options to add Contact information with input fields for "Name", "Email" and "Position". [Onstage Contact Action] | |
| 9. System inquires for the consent of the reference to be added with "Yes" and "No" options. [Onstage Contact Action] | |

| | |
|---|---|
| 10. User selects “Yes” option. [User Action] | 10 a. User selects “No” option. [User Action] |
| 11. | 11a. System displays reference cannot be added and option of “Ok” that can return user to add reference page. [Onstage Contact Action] |
| 12. System displays option for selecting skills from user profile that can be validated by reference added. [Onstage Contact Action] | |
| 13. User selects relevant skill and selects “Continue. [User Action] | |
| 14. System displays reference added to the list of references. [Onstage Contact Action] | |
| **Post Conditions** | |
| • Reference is added to the profile of user.<br>• Reference added is linked to the skills user added to profile. | |

Table 8: Process to add reference to the skill as evidence for sub-activity Add Reference of Activity 1.

With reference to the process defined above the Figma prototype is designed and mock-ups for “Add reference” activity are shown in Figure 24.

| | | | |
|---|---|---|---|
| 1.System will display options for “My Skills”, …, References”. [Onstage Contact Action]<br>2. User selects “My References” option. [User Action]<br>6. System displays added references … new reference. [Onstage Contact Action] | 2 a. User selects option of “My Skills”. [User action]<br>3a. System will display list of added skills and option “+”. [Onstage contact action]<br>4a. User selects “+” add option. [User action]<br>5a. System displays options for “What would you like to add?” … reference. [Onstage Contact Action]<br>6a. User selects option for adding “Reference”. [User Action]<br>7. User selects “Add reference” option. [User Action] | 8. System displays options to add Contact information with input fields for “Name”, “Email” and “Position”. [Onstage Contact Action] | 9. System inquires for the consent … No options. [Onstage Contact Action]<br>10. User selects “Yes” option. [User Action] |

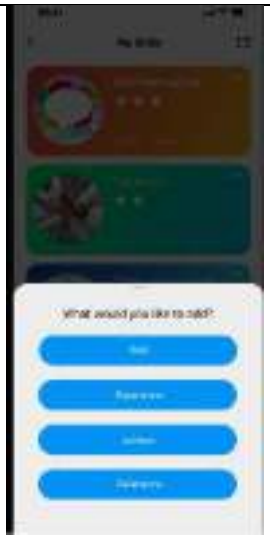
| | | | |
|---|---|---|---|
|  |  |  |  |
| 10 a. User selects “No” option. [User Action]<br>11a. System displays reference cannot be added and option of “Ok” that can return user to add reference page. [Onstage Contact Action] | 12. System displays option for selecting skills … reference added. [Onstage Contact Action] | 13. User selects relevant skill and selects “Continue. [User Action] | 14.System displays reference added to the list of references. [Onstage Contact Action] |
| |  |  |  |

Figure 24: Mock-ups for adding reference as evidence to the skill for sub-activity of Activity 1.

### 5.1.3 Adding goals in user profile

Goals are also a significant part of the conceptual framework and, as defined in 3.1.1, a goal is defined as the new skill(s) user want to learn using learning resources to improve one's profile. It is also defined in terms of skill level that user is intended to acquire in particular skill to prove the competency in the skill.

User can register goal to the user profile when creating one however, user can also add skills as goals through different other activities as defined in later sections. When user add goals to user profile or through other activities the user will be able to view details of saved goals through "Goals" option in main menu of the GES App as shown in Table 9.



Table 9: Process to add /view goals in GES app as sub-activity of Activity 1

| Sub Activity: Overview of goals saved in profile | |
|---|---|
| **Priority:** Medium | |
| **Actors:** Students, Employee, Jobseekers, Graduates | |
| **Use Case Summary** | User will be able to view the saved list of goals in user profile. |
| **Pre-condition:** | User must be registered to the system as student or job seeker.<br>User should have saved one or more skills as goals in user profile. |

| Normal Course of Events | Alternate Path |
|---|---|
| 1. User selects “Goals” option from “Home” screen. [User Action] | |
| 2. System will display list of skills saved as goals from user profile. [Onstage contact action] | |
| 3. User selects skills that user is intended to improve and selects option of “Learning resources”. [User action] | |
| 4. System displays links to the different resources for learning skills. | |

| Post Conditions |
|---|
| • User accessed skills saved as goals in the profile.<br>• User selected skills to improve through learning resources. |

The above-mentioned process is designed as Figma prototype, and the mock-ups of the activity are shown in Figure 25.

| | | | |
|---|---|---|---|
| 1.User selects “Goals” option from “Home” screen. [User Action] | 2. System will display list of skills saved as goals from user profile. [Onstage contact action] | 3.User selects skills that user is intended to improve and selects option of “Learning resources”. [User action] | 4. System displays links to the different resources for learning skills. |


Figure 25: Mock-ups for overview of saved goals as sub-activity in Activity 1.

**Self-Assessment through Activity1**

Skills can be technical skills and soft skills. The set of employability skills included in the GES App has been identified through the literature review (O1). The assessment of skills is based on the user's reflections through activities for recording skills in the GES App and by adding evidence to the skills, which are experiences, artifacts, and references. The GES App enables users to have an overview of the skills as shown in Figure 26, added to the profile, alongside allowing them to sort activities as per their preference. Some of the important benefits that Activity offers to users are:

- Overview of what skills user have that will be valuable input to their resume and CV.
- Assessment of level of skills with evidence recorded.
- Comparison of user competency in different skills.
- Facilitating decision making for user for prioritisation of learning activities to improve user skill profile.

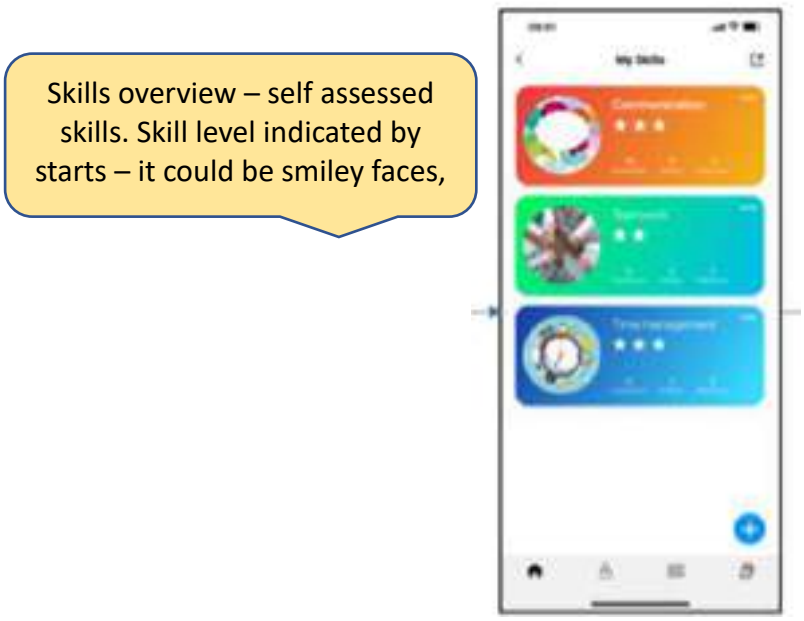



Figure 26: Mock-up for self-assessment for skills at app

**Learning Outcome**

1. Reflection on what skills user has acquired through academic or practical experiences
2. Reflection by user on their experiences
3. Realisation for improvement in skill profile
4. Knowledge of new skills through repository
5. Skill development through goal identification.

## 5.2 Activity 2 - Dream job

The second activity for the GES-app is recording and monitoring of "Dream job", as an integral component of conceptual framework that highlight the need of skill development among users. The activity design enables users:

- To identify (1) the sector they want to work in (2) the job they want to aim for.
- To research what skills/knowledge/attitudes/values are required for both the sector and the role.
- To search database of crowdsourced info for similar roles. This info will be added to crowdsourced information.

- Could include a reflective activity where students reflect on the gap between where they are and where they want to be and set goals.

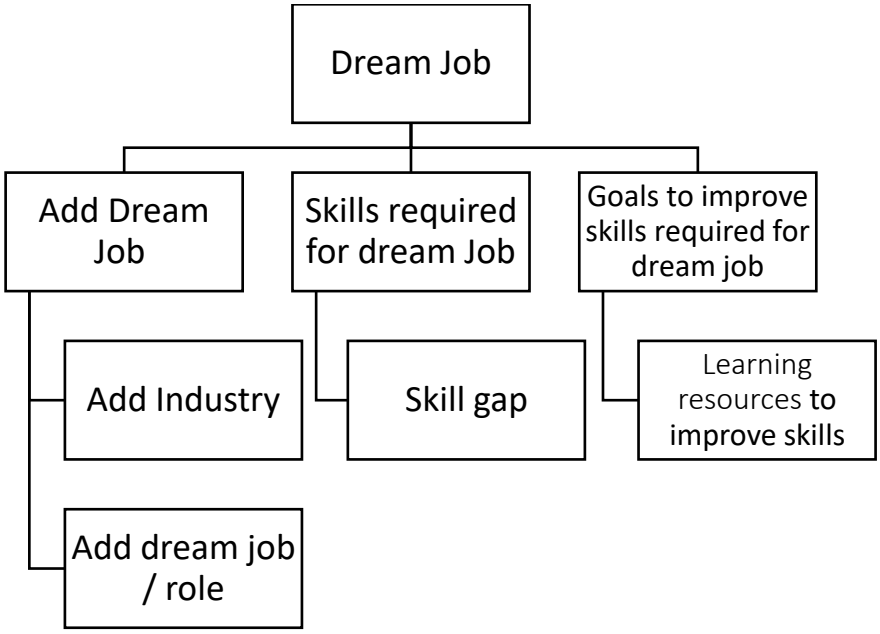



Figure 27: Activity 2 and supporting activities

To achieve the objectives of the Activity2 following sub-activities are designed in app as show in Figure 28:

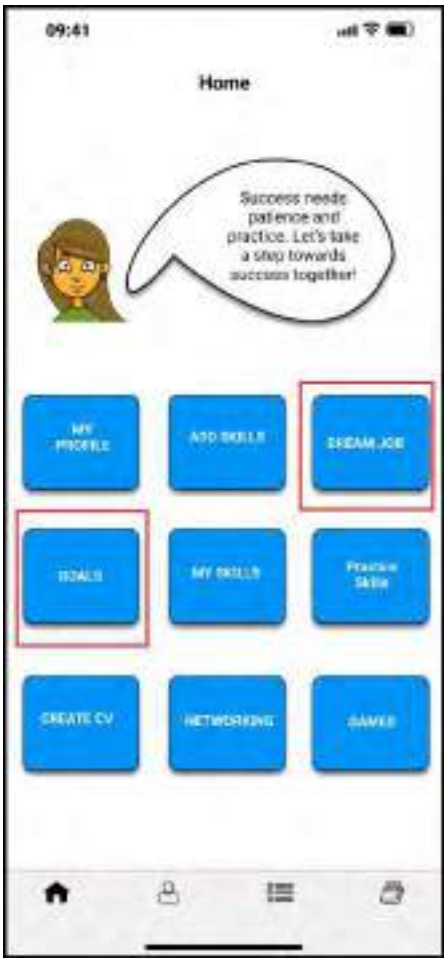



Figure 28: Activity2 supporting sub-activities

**Definition of "Dream job"**

In the GESs framework the dream job is defined in terms of "role" user want to work in, and "industry" that is where user expertise lies. For achieving the dream job user will require to achieve a skill set that comprises of "role-oriented skills", and "industry specific skill".

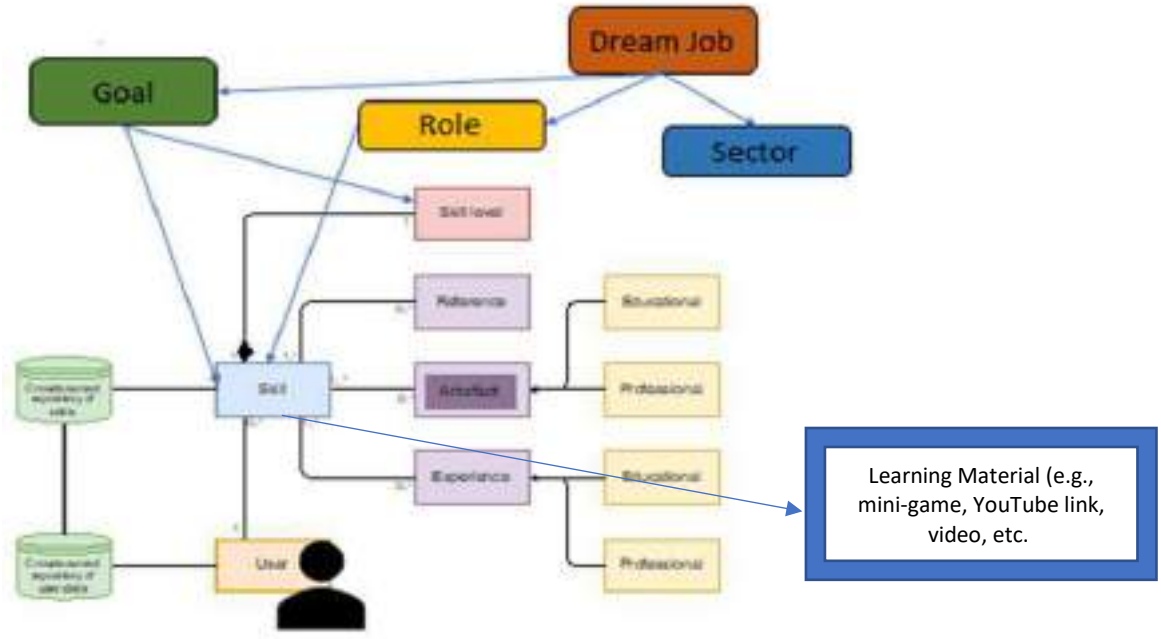



Figure 29: Application framework with Dream job concept

**Objective of the activity 2**

- Define a dream job by defining a name for it and selecting the components related to it.
- Updating the dream jobs with new skills acquired.
- Identification of the "gap" and how to cover it to reach the dream job?
- The GES App can enable user to identify the gap between the dream job and the current position by evaluating the user existing skill set from profile and skill set required to achieve the dream job.
- Knowing the gap, activity can suggest learning resources to reduce the gap by acquiring required skill set and to motivate user to do so, short term goals can be defined by the GES App as per the user choice and requirement.

**Pre-requisite**

1. The user is required to be registered
2. User should have profile with skill saved to crowdsource repository

**Benefits to Users**

1. User can plan future job
2. User will be able to evaluate the difference between current position and ultimate goal
3. User can plan short term goals to achieve dream job
4. User will be able to improve profile
5. Improved motivation

### 5.2.1 Adding Dream Job

The process to add dream job to the GES App is identified through user journey as shown in Figure 30

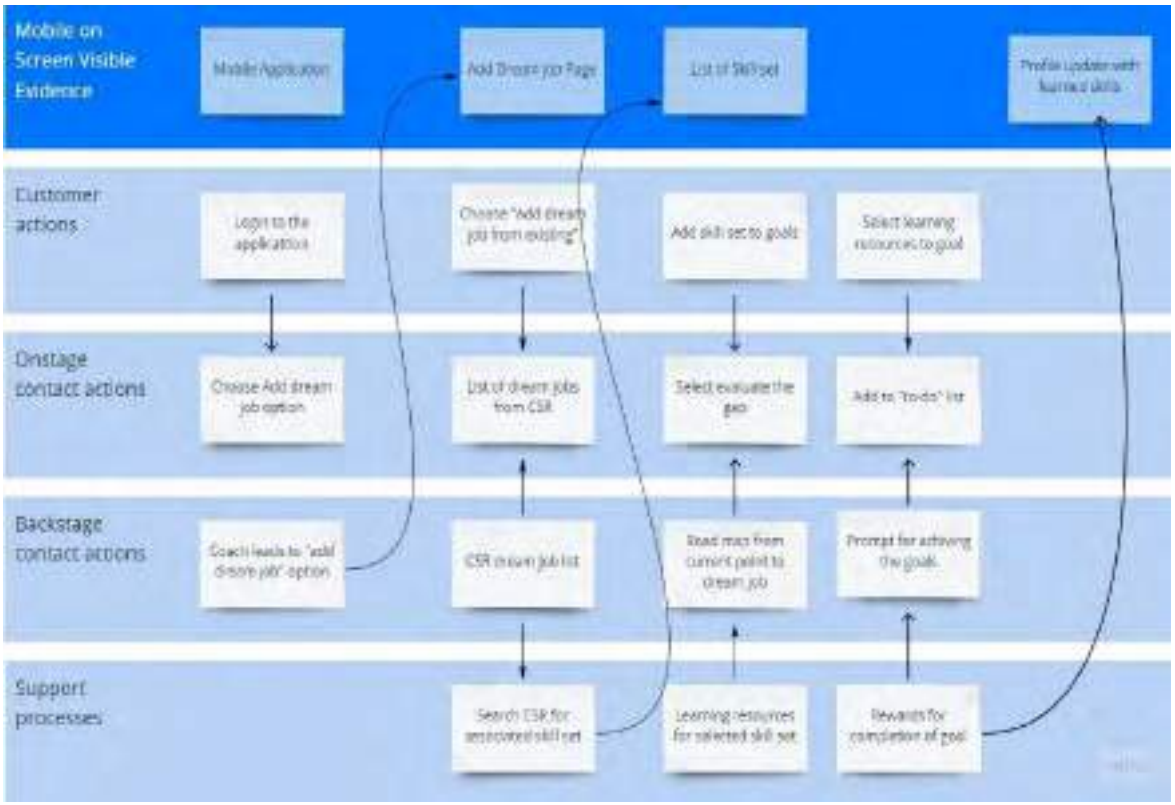



Figure 30: User journey blueprint for adding dream job to profile for Activity 2.

In the light of user journey, the detail steps for “Adding Dream Job” to user profile are shown in Table 10.

| Sub Activity: Adding dream job | | |
|---|---|---|
| **Priority:** High | | |
| **Actors:** Students, Employee, Jobseekers, Graduates | | |
| **Sub-Activity Summary** | User will be able to add the dream job to the profile selecting job through Crowdsource repository. | |
| **Pre-condition:** | User must be registered to the system as student or job seeker. | |
| **Normal Course of Events** | | **Alternate Path** |
| 1. User selects "Dream job" option from "Home" screen. [User Action] | | |
| 2. System will display options "Browsing Existing Dream Jobs", "Create New Dream Job"" or "My dream jobs". [Onstage contact action] | | |
| 3. User selects "Browse Existing Dream Jobs" option. [User action] | | |
| 4. System will display list of "Dream jobs" from repository. [Onstage Contact Action] | | |
| 5. User selects job as per preference. [User action] | | |
| 6. System displays "Potential skill set required" from the CSR with option of "Add skills to goals". [Onstage contact action] | | |
| 7. System displays required skills and present skills as gap to the "Dream job". [Onstage contact action] | | |
| **Post Conditions** | | |
| • Selected "Dream job" is added to the user profile.<br>• Suggested skill set is added to goals. | | |

Table 10: Process to add dream job to GES app as sub-activity Add dream job of Activity 2.

Mock-up for adding dream job from repository is designed in Figma following the detail steps mentioned above and shown in Figure 31.

<table>
<tr><td>1. User selects “Dream job” option from “Home” screen. [User Action]</td><td>2. System will display options “Browsing Existing Dream Jobs”, “Create New Dream Job”” or “My dream jobs”. [Onstage contact action]<br>3. User selects “Browse Existing Dream Jobs” option. [User action]</td><td>4. System will display list of “Dream jobs”. [On stage contact action]<br>5. User selects job as per preference. [User action]</td></tr>
<tr><td>  </td><td> 
</td><td>  </td></tr>
<tr><td>6. System displays “Potential skill set required” from the CSR with option of “Add skills to goals”. [Onstage contact action]</td><td>7. System displays required skills and present skills as gap to the “Dream job”. [Onstage contact action]</td><td></td></tr>
<tr><td>  </td><td>  </td><td></td></tr>
</table>

Figure 31: Mock-ups for adding dream job from repository as sub-activity of Activity 2.

### 5.2.2 Creating Dream Job

The user journey in Figure 32 is used to identify touchpoints for the users when creating a customised dream job.

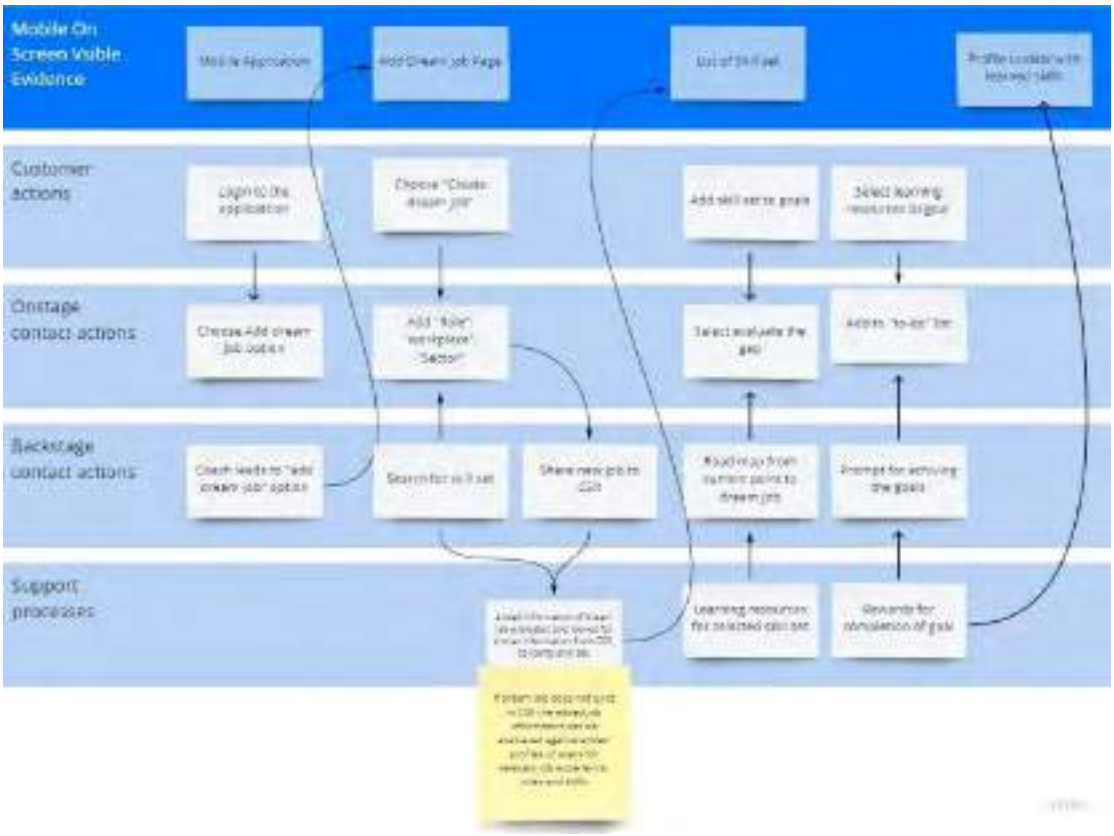



Figure 32: User journey blueprint for defining customised dream job

From the user journey the detail steps are defined to create new dream job by user as documents in Table 11.

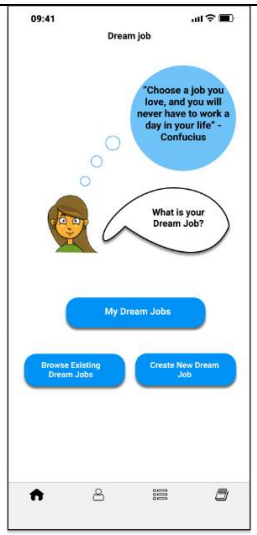
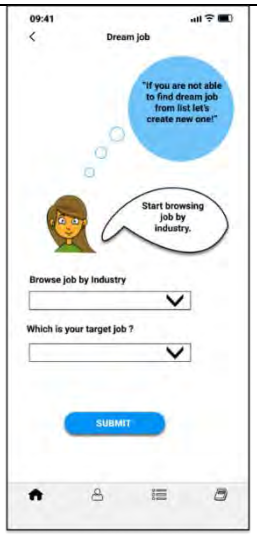
| **Sub Activity: Create New Dream Job** | |
|---|---|
| **Priority:** High | |
| **Actors:** Students, Employee, Jobseekers | |
| **Use Case Summary** | User will be able to create new dream job that may or may not be available in Crowdsource repository and adding it to profile that also enable identifying of required skill set. |
| **Pre-condition:** | User must be registered to the system as student or job seeker. |

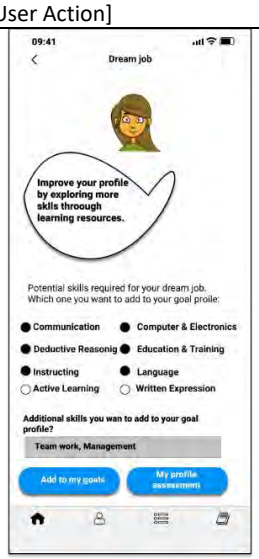
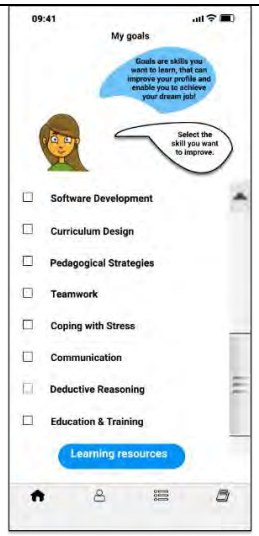
| Normal Course of Events | Alternate Path |
|---|---|
| 1. User selects “Dream job” option from “Home” screen. [User Action] | |
| 2. System will display options “Browse Existing Dream Jobs”, “Create New Dream Job”” or “My dream jobs”. [Onstage contact action] | |
| 3. User selects “Create New Dream Job” option. [User action] | |
| 4. System will display option to browse job by Industry. [Onstage contact action] | |
| 5. User selects the “Industry” from given options. [User action] | |
| 6. System will display option to select relevant job from the industry selected. [Onstage contact action] | |
| 7. User selects “Job” from the list. [User action] | |
| 8. System displays option for “Find relevant skills” to the dream job and “Add to my Dream job list”. [Onstage Contact Action] | |
| 9. User selects option for “Find relevant skills”. [User action] | 9a. User selects option for “Add to my Dream job list”. [User action] |
| 10. | System displays prompt for “Dream job added” and option to view “My goals”. [Onstage Contact Action] |
| 11. System displays relevant skills from the CSR to the job selected and allow user to select the preferred skills. System also offer option to user to add more skills here. [Onstage Contact Action] | |
| 12. Uses select skills and add skill that are desired to be part of user profile. [User Action] | |
| 13. System displays options “My profile assessment” based on selected skills or option to “Add to my goals”. [Onstage Contact Action] | |
| 14. User selects option to add skills to user goals profile. [User Action] | 14 a. User selects option for “My profile assessment” to evaluate gap of existing skills from required skills. [User Action] |

| | |
|---|---|
| 15. System prompts “Skill Added to Goals” and option to view “My goals”. | System display gap for the required skills sets with respect the present skills of users. [Onstage Contact Action] |
| 16. | User selects skills that displays the evaluation of skill in terms of experience and project. [User Action] |
| 17. | User selects “Yes” option for Improving the skill. [User Action] |
| 18. System displays list of skills added to goals and option for user to select the skill for improve competency. [Onstage Contact Action] | |
| 19. User selects skill for improving knowledge and selects option of “Learning resources”. [User Action] | |
| 20. System displays links for learning resources to improve skill. [Onstage Contact Action] | |
| **Post Conditions** | |
| 1. Defined “Dream job” is added to the user profile.<br>2. Selected skill set for improvement is added to goals. | |

Table 11: Process steps to create new dream job

The process is designed using Figma prototype and mock-ups from the prototype are shown in Figure 33.

<table>
<tr><td>1. User selects “Dream job” option from “Home” screen. [User Action]</td><td>2. System will display options “Browse Existing Dream Jobs”, “Create New Dream Job”” or “My dream jobs”. [Onstage contact action]<br>3.User selects “Create New Dream Job” option. [User action]</td><td>4.System will display option to browse job by Industry. [Onstage contact action]</td><td>5.User selects the industry from given options. [User action]</td></tr>
<tr><td>  </td><td> 
</td><td> 
</td><td>  </td></tr>
<tr><td>6. System will display option to select relevant job from the industry selected. [Onstage contact action]</td><td colspan="2">7.User selects job from the list. [User action]<br>8.System displays option for “Find relevant skills” to the dream job and “Add to my Dream job list”. [Onstage Contact Action]<br>9.User selects option for “Find relevant skills”. [User action]</td><td>11.System displays relevant skills from the CSR to the job selected and allow user to select the preferred skills. System also offer option to user to add more skills here. [Onstage Contact Action]<br>12. Uses select skills and add skill that are desired to be part of user profile. [User Action]<br>13. System displays options “My profile assessment” based on selected skills or option to “Add to my goals”. [Onstage Contact Action]</td></tr>
</table>

| | | | |
|---|---|---|---|
|  |  |  |  |
| 13.System displays options “My profile assessment” based on selected skills or option to “Add to my goals”. [Onstage Contact Action]<br>14.User selects option to add skills to user goals profile. [User Action] | 15. System prompts “Skill Added to Goals” and option to view “My goals”. User selects option to view “My goals”. | *Process output: System displays my goals saved in profile.* | |
|  |  |  | |
| | | | |
| | | | |
| **Alternative Path** | | | |
| | 14a. User selects option for “My profile assessment” to evaluate gap of existing skills from required skills. [User Action]<br>15a. System display list of required skills sets with | 15. User selects skills that displays the assessment of skill in terms of experience and project. [User Action] | 20.System displays option to learning resources to improve skill. [Onstage Contact Action] |

| | | | |
|---|---|---|---|
| | respect the present skills of users. [Onstage Contact Action] | 16. User selects “Yes” option for Improving the skill. [User Action] | |
| |  |  |  |

Figure 33: Mock-ups for creating dream job in app as sub-activity of Activity 2.

For the purpose of having overview of user recorded dream jobs the process of the sub-activity My dream jobs is defined in Table 12.

| **Sub Activity: View user recorded dream jobs** | |
|---|---|
| **Priority:** Medium | |
| **Actors:** Students, Employee, Jobseekers, Graduates | |
| **Use Case Summary** | User will be able to view the saved list of dream jobs in user profile. |
| **Pre-condition:** | User must be registered to the system as student or job seeker.<br>User should have saved one or more dream jobs in user profile. |
| **Normal Course of Events** | **Alternate Path** |
| 1. User selects “Dream job” option from “Home” screen. [User Action] | |
| 2. System displays options “Browse Existing Dream Jobs”, “Create New Dream Job”” or “My dream jobs”. [Onstage contact action] | |
| 3. User selects “My Dream Jobs” option. [User action] | |

| | |
|---|---|
| 4. System displays list of dream jobs with options to view “Knowledge specific skills” or “Employability Skills” related to dream job. [Onstage contact action] | |
| 5. User selects option of “Employability skills”. [User action] | |
| 6. System displays list of employability skills relevant to dream job with option to add skill to user goals list. [Onstage contact action] | |
| 7. User selects desired skills from the list and option to add to goals. [User action] | |
| 8. System displays message for confirmation of skills added to goals along with option to view “My goals”. [Onstage Contact Action] | |
| 9. User selects option of “Knowledge specific skills”. [User action] | |
| 10. System displays list of knowledge specific skills relevant to dream job with option to add skill to user goals list. [Onstage Contact Action] | |
| 11. User selects desired skills from the list and option to add to goals [User action] | |
| 12. System displays selected skills in the list of goals of user. [Onstage Contact Action] | |
| **Post Conditions** | |
| • User viewed dream jobs saved to system.<br>• User selected skills relevant to dream jobs and added to goals. | |

Table 12: Detail steps to view recorded dream jobs as sub-activity of Activity 2.

The mock-ups of activity to overview saved dream jobs through “My Dream Jobs” option, are shown in Figure 34.

| | | | |
|---|---|---|---|
| 1. User selects “Dream job” option from “Home” screen. [User Action]<br>2. System displays options “Browse Existing Dream Jobs”, “Create New Dream Job”” or “My dream jobs”. [Onstage contact action]<br>3. User selects “My Dream Jobs” option. [User action] | 4. System displays list of dream jobs with options to view “Knowledge specific skills” or “Employability Skills” related to dream job. [Onstage contact action]<br>5. User selects option of “Employability skills”. [User action] | 6. System displays list of employability skills relevant to dream job with option to add skill to user goals list. [Onstage contact action]<br>7. User selects desired skills from the list and option to add to goals [User action] | 8. System displays confirmation of skills added to goals and option to view My goals. [Onstage Contact Action] |

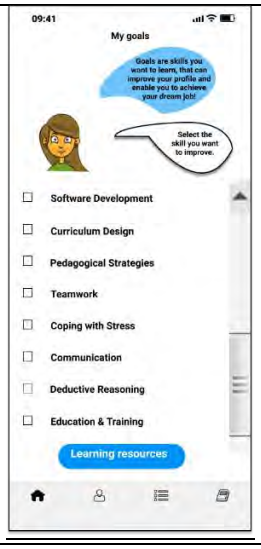
| | | | |
|---|---|---|---|
|  |  |  |  |
| 9. User selects option of "Knowledge specific skills". [User action]<br>10. System displays list of knowledge specific skills relevant to dream job with option to add skill to user goals list. [Onstage Contact Action] | 11. User selects desired skills from the list and option to add to goals [User action] | 12. System displays selected skills in the list of goals of user. [Onstage Contact Action] | |
|  |  |  | |

Figure 34: Mock-ups for overview saved dream jobs as sub-activity of My dream jobs in Activity 2.

### Learning Outcome

1. User will learn about different skill set related to industry.
2. Motivation to Improve skill set through learning resources.
3. Exposure to the market needs.

## 5.3 Activity 3- Learning Material to practice selected Skills

Activity1 and Activity2, which include creating a skills profile by a user, through self-reflection and assessment along with exploring the future opportunities through dream jobs, invoke the need of skill development among users. Therefore, Activity3 - “Practice selected skills” is defined to facilitate the users to improve their identified and preferred skills, while providing access to a wide range of learning resources that enable them to learn and practise skills for a better skill profile. The activity aims to help the user:

- To improve one or more skills selected by the user randomly or from identified goals.
- To improve skills to achieve a Dream Job.
- To improve skills based on the Skills gap.
- To highlight relevant experiences to input to record skills.
- To highlight relevant experiences to support goals set by users.

The activity of practice in selected skills is divided into two sub-activities as shown in Figure 35.

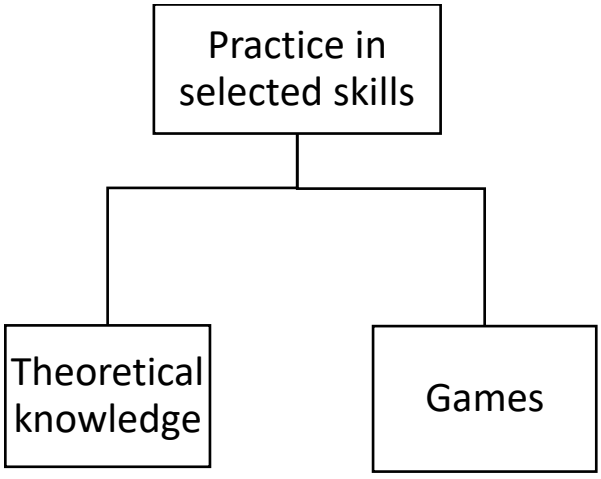



Figure 35: Activity 3 and supporting sub-activities

**Requirements**

1. Availability of learning resources to acquire theoretical knowledge in form of:
    - Videos
    - External links
    - Mini games
    - Other, e.g., documents

2. Users can select a skill and learning resources to practice the skill.
3. Users could be recommended skills (and/or) learning resources related to a goal or a dream job.
4. Users can use learning resources recommended by other users.
5. Users are rewarded for the use of using learning resources and improving skills in form of skill competency percentage.
6. Recommendation by application using physical location of user to explore physical learning resources available in surrounding.

The mock-up showing the user interface for main menu of application for the Activity 3 is shown in Figure 36.

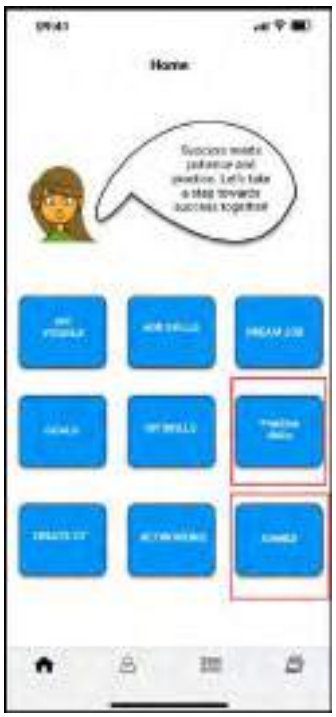



Figure 36: User interface for functionalities showing Activity3 in GES app

**Pre-requisite**

1. User should be registered to app
2. User should have profile with skills added
3. User may have skills saved as goals for improvement.
4. User may allow app to use physical location of user

**Benefits to Users**

1. User will be able to improve skill profile.
2. User will be able to have better profile for dream job.

3. User will be able to access different type of resources at one place.
4. User will be able to learn new skills.

The Figure 37 depicts the user journey for the users to access different types of learning resources like online courses, videos, mini games etc. With the help of user journey, the detail process to the activities has been mapped in later sections.

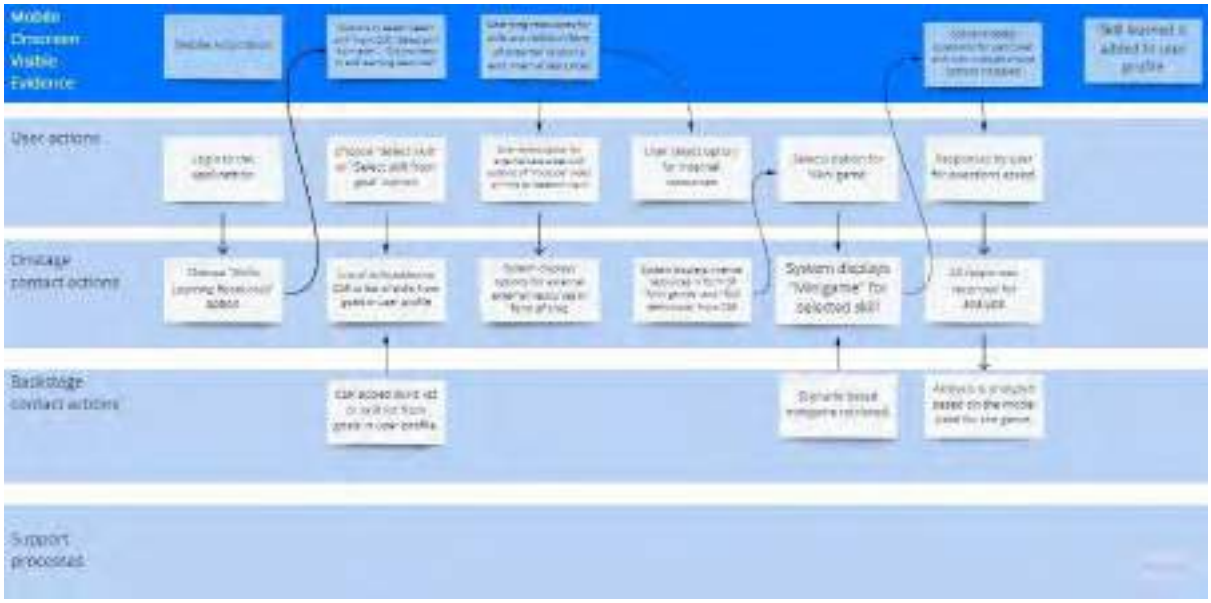



Figure 37: User journey to access learning resources for practice skills in Activity 3.

### 5.3.1 Practice skills through physical and online learning resources

Two supporting activities have been identified for the purpose of practicing skills as shown in Figure 35, and acquiring theoretical knowledge is one of them. To acquire theoretical knowledge the GES app has been designed to provide access to wide range of learning resources like physical and online. Table 13 shows the process to access physical learning resources through the GES App. GES app is designed to facilitate user to access physical resources that can help user to enhance their knowledge in the skill through location-based search. The location-based search can help user locate any physical learning resources like workshops, seminars, or courses available within the geographical location of the user.

| Sub Activity: Practice skills through physical learning resources | |
|---|---|
| **Priority:** Medium | |
| **Actors:** Students, Employee, Jobseekers, Graduates | |
| **Use Case Summary** | User will be able to search for physical resources for learning skills through location-based service. |
| **Pre-condition:** | User must be registered to the system as a student or job seeker.<br>User should have selected minimum one skill to learn from goals or randomly selected.<br>User should have location-based service on. |

| Normal Course of Events | Alternate Path |
|---|---|
| 1. User selects “Practice Skills” option from “Home” screen. [User Action] | |
| 2. System displays options of “Learning Resources” and “Browse Physical Practice Options”. [Onstage contact action] | |
| 3. User selects the option of “Browse Physical Practice Options”. [User action] | |
| 4. System displays input options for skill and industry along with options to select from that is “Workshops”, “Seminars” and “Short courses”. [Onstage contact action] | |
| 5. User input keywords into the fields and select preferred option for physical learning resource and select option of “Search near me”. [User action] | |
| 6. System prompt for the confirmation by user with message “Allow location-based service”. [Onstage contact action] | |
| 7. User selects “Yes” for confirmation. [User action] | |
| 8. System displays locations near user using maps showing learning options relevant to keywords input by user. [Onstage contact action] | |
| 9. User selects any option on map. [User action] | |
| 10. System displays contact details for user to reach. [Onstage contact action] | |
| **Post Conditions** | |

| |
|---|
| • User can view information regarding the available physical learning resources near the user. |

Table 13: Process to access physical learning resources as sub-activity in Activity 3.

The process is designed using Figma and the mock-ups of the GES App for access location based physical resources are shown in Figure 38.

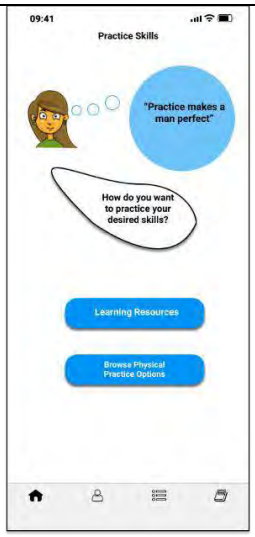
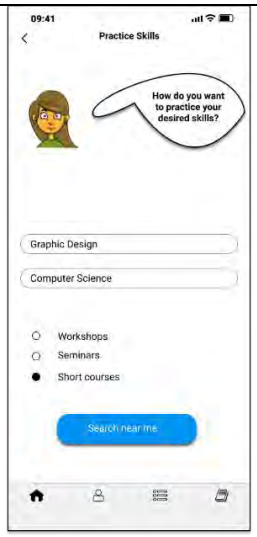
| | | | |
|---|---|---|---|
| 1. User selects “Practice Skills” option from “Home” screen. [User Action] | 2. System displays options of “Learning Resources” and “Browse Physical Practice Options”. [Onstage contact action]<br>3. User selects the option of “Browse Physical Practice Options”. [User action] | 4. System displays input options for skill and industry along with options to select from that is “Workshops”, “Seminars” and “Short courses”. [Onstage contact action] | 5. User input keywords into the fields and select preferred option for physical learning resource and select option of “Search near me”. [User action] |
|  |  |  |  |
| 6. System prompt for the confirmation by user with message “Allow location-based service”. [Onstage contact action]<br>7. User selects “Yes” for confirmation. [User action | 8. System displays locations near user using maps showing learning options relevant to keywords input by user. [Onstage contact action]<br>9. User selects any option on map. [User action] | 10. System displays contact details for user to reach. [Onstage contact action] | |


Figure 38: Mock-ups for location based physical learning resources as sub-activity in Activity 3.

Another way of integrating access to different types of learning resources for acquiring theoretical knowledge to support activity of practicing skills is through links to online available resources like YouTube videos, free online courses, online research papers and articles, etc. The process to access different online learning resources is defined in Table 14.

| **Sub Activity: Practice skills through online learning resources** | |
|---|---|
| **Priority:** Medium | |
| **Actors:** Students, Employee, Jobseekers, Graduates | |
| **Use Case Summary** | User will be able to search for online resources for learning skills through that can be internal or external to the GES App. |
| **Pre-condition:** | User must be registered to the system as student or job seeker.<br>User should have selected minimum one skill to learn from goals or randomly selected. |
| **Normal Course of Events** | **Alternate Path** |
| 1. User selects "Practice Skills" option from "Home" screen. [User Action] | |
| 2. System displays options of "Learning Resources" and "Browse Physical Practice Options". [Onstage contact action] | |
| 3. User selects the option of "Learning Resources". [User action] | |

| | |
|---|---|
| 4. System displays input options for selection of skill from Crowdsource repository or selection of skill from “Goals” of user profile along with option to contribute learning resource to repository. [Onstage contact action] | |
| 5. User selects skill from repository or from the list of goals added to user profile. [User action] | |
| 6. System displays options available for different type of online learning resources that are “Link to the paper”, “YouTube video”, links to “Online free courses” or internal resources like “What is this skill?” or “Mini games”. [Onstage contact action] | |
| 7. User selects option for internal resources that is “What is this skill?”. [User action] | 7a. User selects option for internal resource of “Mini games”. [User action] |
| 8. System displays details of what the skill is and how it is defined from the repository with option to add skill to skill profile of user. [Onstage contact action] | 8a. System displays option to play mini game relevant to the skill selected by the user. [Onstage contact action] |
| **Post Conditions** | |
| • User has learned new skill.<br>• User can acquire more information of skill from different resources.<br>• New skill is added to user profile when learned. | |

Table 14: Process to access different online learning resources as sub-activity of theoretical knowledge in Activity 3.

With reference to process defined above the mock-ups are designed to depict interactive process as shown in Figure 39.

| | | | |
|---|---|---|---|
| 1.User selects “Practice Skills” option from “Home” screen. [User Action]<br>2. System displays options of “Learning Resources” and “Browse Physical Practice Options”. [Onstage contact action]<br>3. User selects the option of “Learning Resources”. [User action] | 4. System displays input options for selection of skill from Crowdsource repository or selection of skill from “goals” of user profile along with option to contribute learning resource to repository. [Onstage contact action] | 5. User selects skill from repository or from the list of goals added to user profile. [User action] | 5. User selects skill from repository or from the list of goals added to user profile. [User action] |

| | | | |
|---|---|---|---|
|  |  |  |  |
| 6. System displays options available for different type of online learning resources that are “Link to the paper”, “YouTube video”, links to “Online free courses” or internal resources like “What is this skill?” or “Mini games”. [Onstage contact action] | 7. User selects option for internal resources that is “What is this skill?”. [User action]<br>8. System displays details of what the skill is and how it is defined from the repository with option to add skill to skill profile of user. [Onstage contact action] | 7a. User selects option for internal resource of “Mini games”. [User action]<br>8a. System displays option to play mini game relevant to the skill selected by the user. [Onstage contact action] | |
|  |  |  | |

Figure 39: Mock-ups for the process of accessing online learning resources as sub-activity of Activity 3 .

### 5.3.2 Mini games

Mini-games is another supportive sub-activity to achieve the objectives of Activity3 that is practice selected skills as shown in Figure 35. The concept of mini-games in the GES App is to enable users to

learn new skills with the help of mini-games. Access to different types of games is offered using GES App. These can include games that use scenario-based questions and response to the questions can help users learn about a particular skill. The scenario-based questions are relevant to the skill, user intended to learn. User shall either choose any skill for learning purpose or user can also choose to learn skill from the set of skill identified by the GES App that can reduce the gap for the user from current position to dream job.

Completion of game successfully is associated with acquisition of theoretical knowledge of skill that is depicted in terms of goals completion. Along with scenario-based games, links to other types of games for skill development is also integrated in app another type of learning resource to practice skills.

The process to access mini-games such as scenario-based game is defined in the Table 15.

| Sub Activity: Practice skills through Mini games | | |
|---|---|---|
| **Priority:** High | | |
| **Actors:** Students, Employee, Jobseekers, Graduates | | |
| **Use Case Summary** | User will be able to learn new skills through scenario based mini games. | |
| **Pre-condition:** | User must be registered to the system as student or job seeker.<br>User should have selected minimum one skill to learn from goals or randomly selected. | |
| **Normal Course of Events** | | **Alternate Path** |
| 1. User selects "Games" option from "Home" screen. [User Action] | | |
| 2. System displays drop down list to search skill from. [Onstage contact action] | | |
| 3. User selects the skill from the list e.g., *Conflict Management*. [User action] | | |
| 4. System initiates game displaying scenario information to start from. [Onstage contact action] | | |
| 5. User selects the scenario to solve. [User action] | | |
| 6. System displays different options as solution to the defined scenario. [Onstage contact action] | | |
| 7. User selects option that one considers suitable that leads to the next options. [User action] | | |
| 8. System displays result of the choices made by user for solving scenario enable user to understand the optimal solution. [Onstage contact action] | | |
| **Post Conditions** | | |
| • User has learned new skill while playing a game.<br>• User can understand different options and consequences to solve scenario.<br>• User can reflect on personal skill level. | | |

Table 15: Process to access mini-games as sub-activity of Activity 3.

Based on the process defined, the mock-ups are designed in Figma to show how minigames can be accessed and can help enhance knowledge for a particular skill as shown in Figure 40.

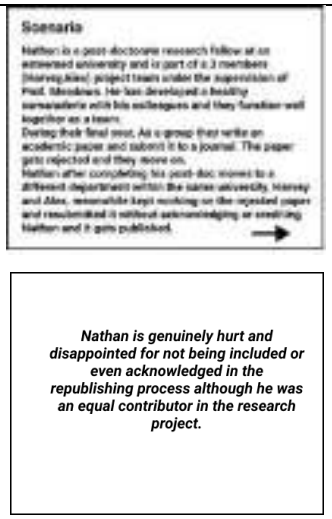
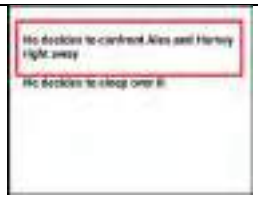
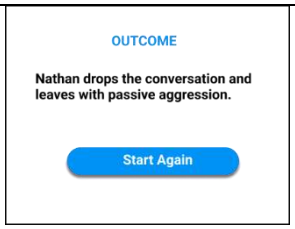
<table>
<tr><td>1. User selects “Games” option from “Home” screen. [User Action]</td><td>2. System displays drop down list to search skill from. [Onstage contact action]</td><td>3. User selects the skill from the list e.g., Conflict Management. [User action]</td><td>4. System initiate game displaying scenario information to start from. [Onstage contact action]<br>5. User selects the scenario to solve. [User action]</td></tr>
<tr><td>  </td><td>  </td><td>  </td><td> 
</td></tr>
<tr><td>6. System displays different options as solution to the defined scenario. [Onstage contact action]<br>7. User selects option that one considers suitable that leads to the next options. [User action]</td><td>7. User selects option that one considers suitable that leads to the next options. [User action]</td><td>7. User selects option that one considers suitable that leads to the next options. [User action]</td><td>8. System displays result of the choices made by user for solving scenario enable user to understand the optimal solution. [Onstage contact action]</td></tr>
<tr><td>  </td><td>  </td><td>  </td><td> 
</td></tr>
</table>

Figure 40: Mock-ups depicting process of accessing mini games as sub-activity of Activity 3.

### 5.3.3 Learning resources sharing

The GES App not only intends to allow user access wide range of resources but also aims to enhance the accessibility through sharing of links to learning resources by users as exhibited with the help of process defined in Table 16.

| Sub Activity: Sharing learning resources | |
|---|---|
| **Priority:** Medium | |
| **Actors:** Students, Employee, Jobseekers, Graduates | |
| **Use Case Summary** | User will be able to share learning resource to the repository that can be useful for other users also. |
| **Pre-condition:** | User must be registered to the system as student or job seeker.<br>User should have selected minimum one skill for which resource will be added. |

| Normal Course of Events | Alternate Path |
|---|---|
| 1. User selects "Practice Skills" option from "Home" screen. [User Action] | |
| 2. System displays options of "Learning Resources" and "Browse Physical Practice Options". [Onstage contact action] | |
| 3. User selects the option of "Learning Resources". [User action] | |
| 4. System displays input options for selection of skill from Crowdsource repository or selection of skill from "goals" of user profile along with option to contribute learning resource to repository. [Onstage contact action] | |
| 5. User selects option of "Yes, I want to contribute resource". [User action] | |
| 6. System displays options for uploading different type of online learning resources that are "Link to the paper", "Image", "YouTube video" or "Note". [Onstage contact action] | |
| 7. User selects any option for sharing learning resource e.g., link to YouTube video. [User action] | |
| 8. System displays input fields to add link to YouTube video, Title and Description of the video. [Onstage contact action] | |
| 9. User provides required information regarding the learning resource. [User action] | |
| 10. System displays learning resource is added to the repository. [Onstage contact action] | |

| Post Conditions |
|---|
| • Learning resource is shared to the repository by user.<br>• Learning resource is available to all users for learning new skills. |

Table 16: Process of sharing learning resources by users as sub-activity of Activity 3.

The process is designed using Figma and mock-ups are used to elaborate interaction among users as shown in Figure 41.

| | | | |
|---|---|---|---|
| 1. User selects “Practice Skills” option from “Home” screen. [User Action]<br>2. System displays options of “Learning Resources” and “Browse Physical Practice Options”. [Onstage contact action]<br>3. User selects the option of “Learning Resources”. [User action]<br>4. System displays input options for selection of skill from Crowdsource repository or selection of skill from “goals” of user profile along with option to contribute learning resource to repository. [Onstage contact action]<br>5. User selects option of “Yes, I want to contribute resource”. [User action] | 6. System displays options for uploading different type of online learning resources that are “Link to the paper”, “Image”, “YouTube video” or “Note”. [Onstage contact action]<br>7. User selects any option for sharing learning resource e.g., link to YouTube video. [User action] | 8. System displays input fields to add link to YouTube video, Title and Description of the video. [Onstage contact action]<br>9. User provides required information regarding the learning resource. [User action] | 10. System displays learning resource is added to the repository. [Onstage contact action] |
|  |  |  |  |

Figure 41: Mock-ups for sharing learning resources as part of sub-activity in Activity 3.

**Learning Outcomes**

1. User will be able to learn new skill through different resources.
2. User will be able to learn search relevant information across different mediums.
3. User will be able to learn more practical information through games.
4. User will contribute to developing repository of learning resources within the GES App.

## 5.4 Activity 4 - Networking and Ethics

This activity aims to support users to interact with other users with same interest and seek knowledge to understand skills requirement as per market need. This activity aims to:

- allow users to seek help to achieve their goals.
- broadening networks that is seeking out people in a range of professions to get their perspective.
- users can make academic and professional contacts when sharing their professional profiles.

To achieve the aims and objectives of this activity it is structured as shown in Figure 42.

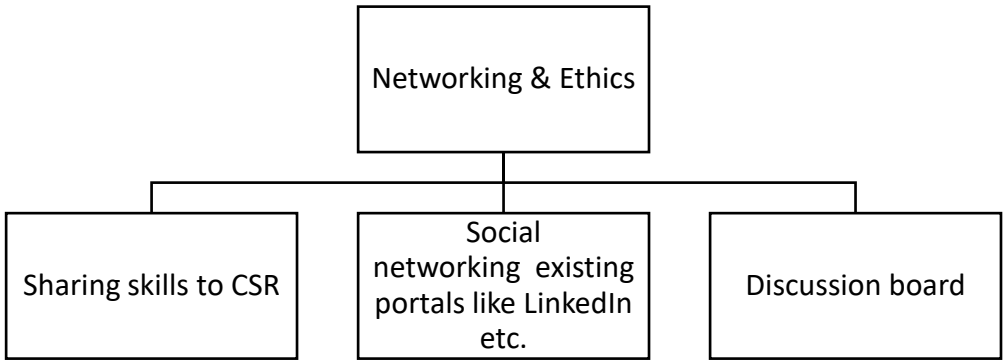



Figure 42: Activity 4 and supporting sub-activities

The sub-activity of sharing skills to Crowdsource repository is also part of Activity1 and it can be seen that in section 5.1.1 that user is prompted by application to confirm if user wants to share skills to repository when user is adding new skill which is not available before. This part of activity not only allow user to share new skills with the users but also allow CSR to expand in terms of knowledge.

**Pre-requisites**

1. The user is required to be registered with user profile.
2. User should have profile with skill saved to crowdsource repository
3. User should have allowed sharing options for skill profile.

**Benefits to Users**

1. User can make contacts with users of the same interest group.
2. User can share acquired knowledge.
3. Users can acquire more information for skills and target dream jobs.

4. User can share professional profile.
5. User can get more information regarding learning resources for improving skills and job profile.

### 5.4.1 Discussion Board

The second sub-activity of the Activity4 is networking with the help of discussion board. In-built discussion board facilitates the networking process, where the students can communicate, ask queries from the other users that are registered in the GES App. The user journey in Figure 43, shows the accessibility of discussion board to user through the GES App and its usability.

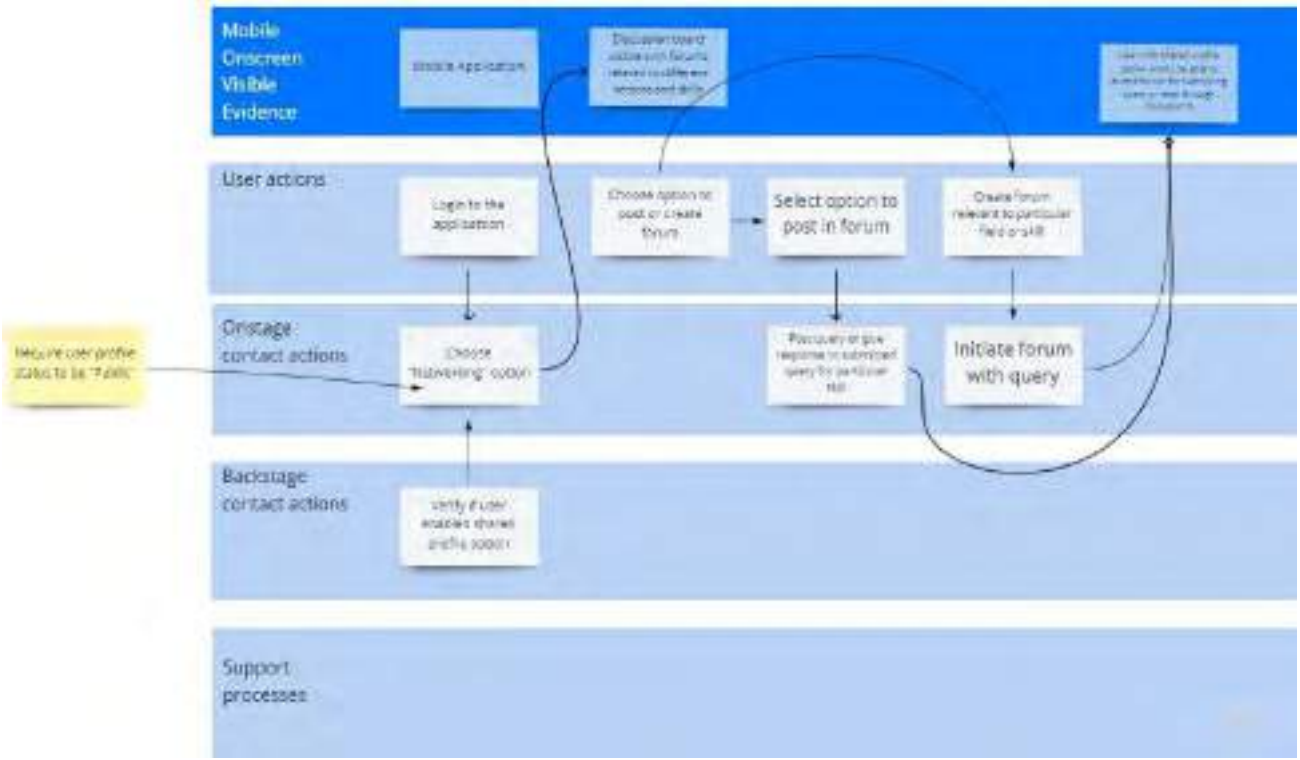



Figure 43: User journey to access the discussion board as part of Activity 4.

| Sub Activity: Networking through Discussion board | | |
|---|---|---|
| **Priority:** Medium | | |
| **Actors:** Students, Employee, Jobseekers, Graduates | | |
| **Use Case Summary** | User will be able to network with other users through built-in discussion board and post their queries or solutions. | |
| **Pre-condition:** | User must be registered to the system as student or job seeker.<br>User should allow profile to be shared for communicating with other users. | |
| **Normal Course of Events** | | **Alternate Path** |
| 1. User selects "Networking" option from "Home" screen. [User Action] | | |
| 2. System displays options of "Discussion Board", "Share LinkedIn Profile", "Share Learning Resources" and "Potential Employers". [Onstage contact action] | | |
| 3. User selects the option of "Discussion Board". [User action] | | |
| 4. System displays Discussion board with option to search, posts by different users and option to start new discussion. [Onstage contact action] | | |
| 5. User selects preferred discussion to view the details and responses. [User action] | | |
| 6. System displays the discussion topic along with details of responses by other users along with option to "Add comment". [Onstage contact action] | | |
| 7. User selects option to add comment. [User action] | | |
| 8. System displays input fields to add comment to the topic. [Onstage contact action] | | |
| 9. User adds response to input field and selects continue. [User action] | | |
| 10. System displays added response to the discussion. [Onstage contact action] | | |
| **Post Conditions** | | |
| • User is connected to other users.<br>• User has learned more information about preferred topic. | | |

The detail process for networking through discussion board is explained in Table 17.

Table 17: Detail process to use discussion board as sub-activity for networking of Activity 4

The prototype design of the activity is mapped to the above explained process and mock-ups are shown in Figure 44.

| | | |
|---|---|---|
| 1.User selects “Networking” option from “Home” screen. [User Action] | 2. System displays options of “Discussion Board”, “Share LinkedIn Profile”, “Share Learning Resources” and “Potential Employers”. [Onstage contact action]<br>3. User selects the option of “Discussion Board”. [User action] | 4. System displays Discussion boar with option to search, posts by different users and option to start new discussion. [Onstage contact action]<br>5. User selects preferred discussion to view the details and responses. [User action] |
|  |  |  |
| 6. System displays the discussion topic along with details of responses by other users along with option to “Add comment”. [Onstage contact action]<br>7. User selects option to add comment. [User action] | 8.System displays input fields to add comment to the topic. [Onstage contact action] | 9. User adds response to input field and selects continue. [User action]<br>10. System displays added response to the discussion. [Onstage contact action] |
|  |  |  |

Figure 44: Discussion board mock-ups in Figma for sub-activity of Activity 4.

### 5.4.2 Sharing LinkedIn Profile

Another supporting activity identified for Activity4 is networking using LinkedIn profile. LinkedIn profile has become an important networking platform for professionals of all domains around the globe. Most organisations refer to the LinkedIn profile of job seekers for their skills and expertise. Thus, integration of LinkedIn profile with the GES App enables users to share their skills and view skills of other users for improvement, inspiration, and networking.

The detail process for the use of LinkedIn profile through GES app is described in Table 18.

| Sub Activity: Sharing LinkedIn profile for networking | |
|---|---|
| **Priority:** Medium | |
| **Actors:** Students, Employee, Jobseekers, Graduates | |
| **Use Case Summary** | User will be able to network with other users by sharing their LinkedIn profiles. |
| **Pre-condition:** | User must be registered to the system as student or job seeker.<br>User should allow profile to be shared for communicating with other users. |

| Normal Course of Events | Alternate Path |
|---|---|
| 1. User selects "Networking"" option from "Home" screen. [User Action] | |
| 2. System displays options of "Discussion Board", "Share LinkedIn Profile", "Share Learning Resources" and "Potential Employers". [Onstage contact action] | |
| 3. User selects the option of "Share LinkedIn Profile". [User action] | |
| 4. System displays input field to search for user profile. [Onstage contact action] | |
| 5. User provides link to personal LinkedIn profile and selects submit. [User action] | |
| 6. System displays confirmation message "LinkedIn link is submitted to the profile". [Onstage contact action] | |
| 7. User selects "OKAY" to confirm. [User action] | |

| Post Conditions |
|---|
| • LinkedIn link is added to user profile.<br>• User can connect to other users through LinkedIn profile. |

Table 18: Detail process step to share LinkedIn profile within GES app for networking as sub-activity of Activity 4.

The mock-ups for integrating LinkedIn profile within the GES App is designed with respect to process defined above and shown in Figure 45.

| | | |
|---|---|---|
| 1.User selects “Networking” option from “Home” screen. [User Action] | 2. System displays options of “Discussion Board”, “Share LinkedIn Profile”, “Share Learning Resources” and “Potential Employers”. [Onstage contact action] | 3. User selects the option of “Share LinkedIn Profile”. [User action] |
|  |  |  |
| 4. System displays input field to search for user profile. [Onstage contact action]<br>5. User provides link to personal LinkedIn profile and selects submit. [User action] | 6. System displays confirmation message “LinkedIn link is submitted to the profile”. [Onstage contact action]<br>7. User selects “Okay” to confirm. [User action] | |
|  |  | |

Figure 45: Mock-ups for adding LinkedIn profile to GES app profile for networking as sub-activity of Activity 4.

**Learning Outcome**

1. Users will be able to understand ethics of networking.

2. Users will be able to acquire more knowledge of the domain Global Employability skills required for domain and as per market needs.
3. Users can reflect on their profile considering other's experience.

## 5.5 Activity 5- Employment Readiness

The main aim of this activity is to help users, especially graduates and job seekers to prepare for employment and help them through the process to find a job. Therefore, the activity of employment readiness is supported by sub-activities are listed below and shown in Figure 46:

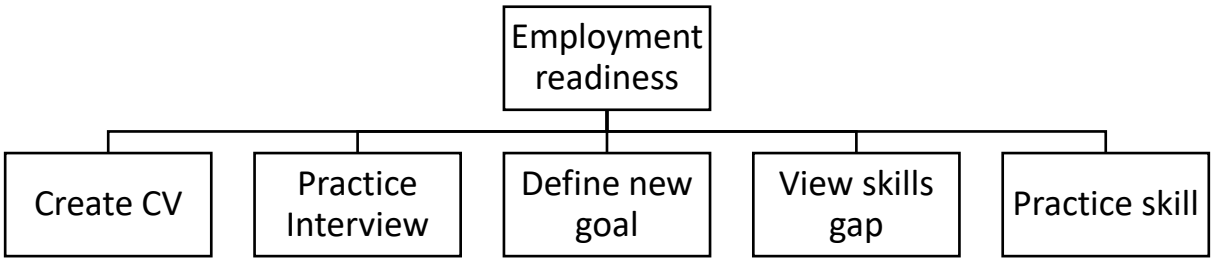



Figure 46: Activity 5 and supporting sub-activities

1. **Create CV –** Present the current profile, with details, in a printable document format.
2. **Practice Interview –** user is presented a set of learning resources
3. **View profile status –** an overview of the profile, which could be used to create a CV as done in Figure 19.
4. **Define a goal –** define goal by user as done in Activity -1 and shown in Figure 25. As goal recognition enable user to identify the skill gap for the dream job role and motivate user to prepare for further employment thus, it is also recognised as supporting activity of Activity5.
5. **View skills gap –** difference between current skills and required skill set for the dream job as done in Activity2, 5.2.2, and can be significant to identify the need of skill development to achieve the desired employment.
6. **Practice skills –** is defined in 5.3 where user can enhance the skill knowledge through different learning resources and prepare themselves for acquiring the employment they seek.

For the activities of creating CV and practice interview the user journey has been mapped to identify the touchpoints for the activity as shown in Figure 47.

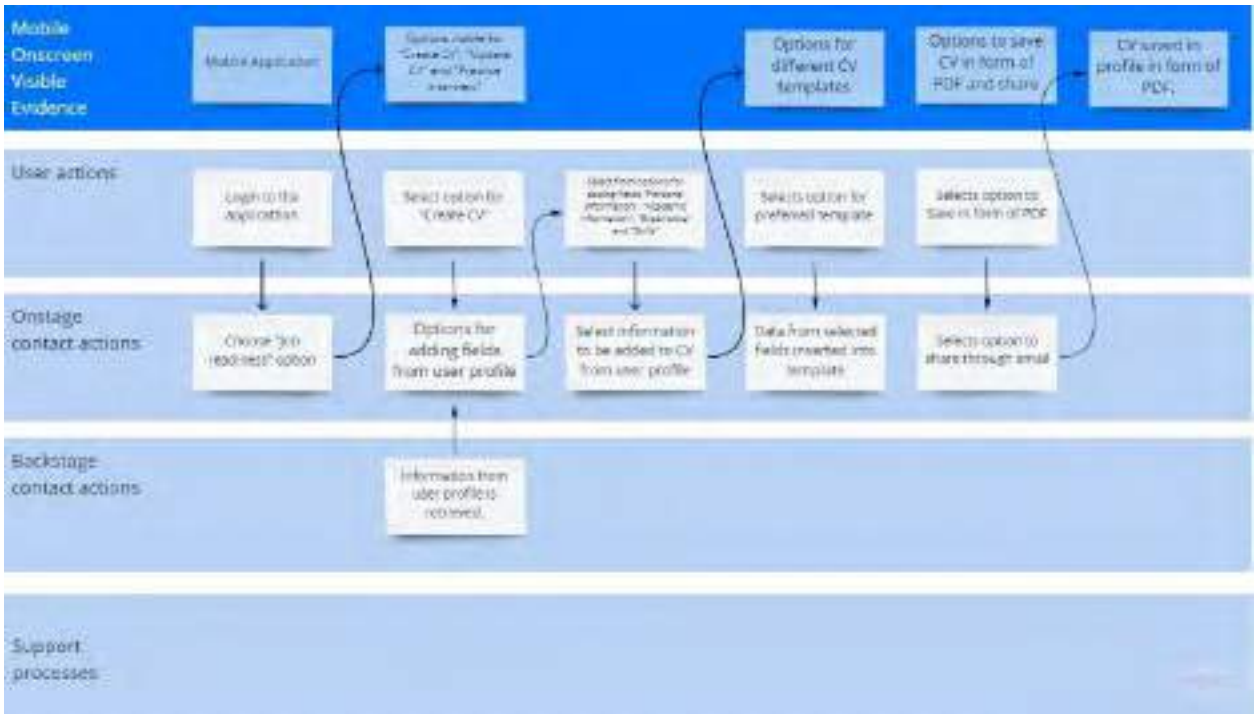



Figure 47: User journey for Activity5

**Pre-requisites**

1. User should be registered to the system.
2. User should have added personal and academic details to the profile.
3. User should have saved skills with evidence to support CV.
4. User may have dream job to search for relevant interviews practice information.
5. User may have goals to map the job requirements.

**Benefits to Users**

1. User can have better preparation for interviews.
2. User will be able to create CV as per requirement.
3. User will have all information gathered at one place.
4. Convenience for user to extract information in different formats.
5. Convenience for user to look for relevant resources for interviews.

### 5.5.1 Create CV

This activity supports a user to learn about how to create a CV and what should be included in a CV. It facilitates user for creating their CV, by providing them an overview of their skills and evidence of skills along with information regarding new learned skills.

**Learn how to create a CV**

The user has access to learning material that could help the user learn how to create a CV. The relevant learning material could be accessed in the following ways:

- User searches for a Skill that is called “Create CV”, which has related learning materials.
- Users searches for learning material which has the string “CV” in the title or is tagged or categorised as “CV”.
- The user has access to an editable template of a CV, which could be downloaded. (Here the GES App provides links to external sources for different templates).

**Start Creating a CV**

A user’s skills profile contains information that is relevant for a CV, such as an overview of the skills that have been recorded by the user. The CV can be compiled by using the components in the profile (set of Skills, Skill Level for each skill, Experiences, Artifact, and References). The full set of capabilities for creating a CV is beyond the scope of this app. Hence, it can be assumed that the GES App can be the start of a CV where the relevant information recorded in the GES App are provided for the user, such that the user could use that information in dedicated CV creation or word processing applications.

The GES App functionality to “Create a CV”, provides an overview of the skills set. Additional capabilities can include:

- CV is presented as a printable/saveable/exportable document.
- The user is presented a set of skills and the user can select which parts of the profile that should be included in the CV, e.g., if the user does not wish to include the References or some of the Experiences, it should be possible to adapt the content.
- The user can select the type of document (e.g., pdf, text file, etc.).

The detail process to create CV activity using GE app is defined in Table 19.

| Sub Activity: Create CV for employment readiness | | |
|---|---|---|
| **Priority:** High | | |
| **Actors:** Students, Employee, Jobseekers, Graduates | | |
| **Use Case Summary** | Users will be able to create CV, learn different formats and can extract information from profile as input for their CV. | |
| **Pre-condition:** | User must be registered to the system as student or job seeker.<br>User should have information recorded in user profile and may have information recorded in skill profile along with evidence. | |
| **Normal Course of Events** | | **Alternate Path** |
| 1. User selects “Create CV” option from “Home” screen. [User Action] | | |
| 2. System displays options of “Create CV”, “Practice Interview” and “Job Search”. [Onstage contact action] | | |
| 3. User selects the option of “Create CV”. [User action] | | |
| 4. System displays options for user to select information from profile that include “Personal information”, “Academic records”, “Experience”, “Skills”, and “Portfolio”. [Onstage contact action] | | |
| 5. User selects the information that is intended to be used in CV and selects “Add”. [User action] | | |
| 6. System prompts with the message for user to choose the format in which the information is required with options of “Text in Word file”, “Text in PDF” or “CV Format”. [Onstage contact action] | | |
| 7. User selects option of “Text in Word Format” or “Text in PDF”. [User action] | | 7a. User selects option of CV Format. [User action] |
| 8. System displays information in text format with options for user of “Ready to download” or “Cancel”. [Onstage contact action] | | 8a. System displays options for different CV templates with options to “Preview” or “Use”. [Onstage contact action] |

| | |
|---|---|
| 9. User selects option of “Ready to download”. [User action] | 9a. User selects template and option to use it. [User action] |
| 10. System downloads file in Word/Pdf format and displays message of “Download complete”. [Onstage contact action] | 10a. System integrate selected information in selected template and generates CV with options to download in PDF format or “Share” it. [Onstage contact action] |
| **Post-Condition** | |
| • Users have information available in editable format for CV.<br>• Users have CV ready to print or share digitally.<br>• Users understand the requirements to create CV for desired job. | |

Table 19: Process to create CV activity as sub-activity of Activity 5.

With reference to the process define in Table 19, the mock-ups are designed using Figma and shown in Figure 48 where user can choose what information should be included in the CV and in what format user want that information to be extracted from app.

| | | | |
|---|---|---|---|
| 1. User selects “Create CV” option from “Home” screen. [User Action] | 2. System displays options of “Create CV”, “Practice Interview” and “Job Search”. [Onstage contact action]<br>3. User selects the option of “Create CV”. [User action] | 4. System displays options for user to select information from profile that include “Personal information”, “Academic records”, “Experience”, “Skills”, and “Portfolio”. [Onstage contact action] | 5.User selects the information that is intended to be used in CV and selects “Add”. [User action] |
|  |  |  |  |
| 6.System prompts with the message for user to choose the format in which the information is required with options of “Text in Word file”, “Text in PDF” or “CV Format”. [Onstage contact action]<br>7. User selects option of “Text in Word Format” or “Text in PDF”. [User action] | 8. System displays information in text format with options for user of “Ready to download” or “Cancel”. [Onstage contact action]<br>9. User selects option of “Ready to download”. [User action] | 10. System downloads file in Word/Pdf format and displays message of “Download complete”. [Onstage contact action] | |

<table>
<tr><td>  </td><td>  </td><td>  </td><td></td></tr>
<tr><td colspan="4">Alternative path</td></tr>
<tr><td>6.System prompts with the message for user to choose the format in which the information is required with options of “Text in Word file”, “Text in PDF” or “CV Format”. [Onstage contact action]<br>7a. User selects option of CV Format. [User action]</td><td>8a. System displays options for different CV templates with options to “Preview” or “Use”. [Onstage contact action]<br>9a. User selects template and option to use it. [User action]</td><td>10a. System integrate selected information in selected template and generates CV with options to download in PDF format or “Share” it. [Onstage contact action]</td><td></td></tr>
<tr><td>  </td><td>  </td><td>  </td><td></td></tr>
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Figure 48: Mock-ups showing process to create CV using GES app as sub-activity of Activity 5.

### 5.5.2 Practice Interview

The user is presented a set of learning resources, to practice interview. User can search across different resources including learning resources for skills to prepare oneself to interview. The process that enables user to practice interview through is defined in Table 20.

| Sub Activity: Practice interview for employment readiness | |
|---|---|
| **Priority:** Medium | |
| **Actors:** Students, Employee, Jobseekers, Graduates | |
| **Use Case Summary** | Users will be able to access different types of learning resources for preparation of interview. |
| **Pre-condition:** | User must be registered to the system as student or job seeker. |

| Normal Course of Events | Alternate Path |
|---|---|
| 1. User selects "Create CV" option from "Home" screen. [User Action] | |
| 2. System displays options of "Create CV", "Practice Interview" and "Job Search". [Onstage contact action] | |
| 3. User selects the option of "Practice Interview". [User action] | |
| 4. System displays option to input keyword related to job user search for and types of content user can access that are "Link to paper", "YouTube video" and "Online free courses". [Onstage contact action] | |
| 5. User input the keyword relevant to jobs or skills and choose resource e.g., "YouTube" videos. [User action] | |
| 6. System displays the relevant videos from YouTube. [Onstage contact action] | |
| 7. User selects video that can redirect system to the source. [User action] | |

| Post-Condition |
|---|
| • Users have access to learning resource to learn for job interview.<br>• Users understand what specific job interview can require. |

Table 20: Detail steps to access learning resources to practice interviews as sub-activity of Activity 5.

Following the process above the mock-ups are designed depicting the process of accessing learning resources for practice interview and can be seen in Figure 49.

| | | | |
|---|---|---|---|
| 1.User selects “Create CV” option from “Home” screen. [User Action]<br>2. System displays options of “Create CV”, “Practice Interview” and “Job Search”. [Onstage contact action]<br>3. User selects the option of “Practice Interview”. [User action] | 4. System displays option to input keyword related to job user search for and types of content user can access that are “Link to paper”, “YouTube video” and “Online free courses”. [Onstage contact action] | 5. User input the keyword relevant to jobs or skills and choose resource e.g., YouTube videos. [User action] | 6. System displays the relevant videos from YouTube. [Onstage contact action]<br>7. User selects video that can redirect system to the source. [User action] |
|  |  |  |  |

Figure 49: Design mock-ups to access learning resources for practice interview as sub-activity of Activity 5.

**Learning Outcomes**

1. Users have better understanding of how CV can be formulated.
2. Users have knowledge of what information can be required when applying for job.
3. Users have access to different learning resources.
4. Users have practiced interviews through learning resources and can anticipate interviews in better way.

# 6 App Gamification and Motivation

Gamification is the integration of game dynamics from games to mobile application that compel user to return to the GES App and motivate them for frequent use and defined as the key to persist an individual for a specific task [13]. As per the theory of motivation, two types of motivations are identified, which are extrinsic and intrinsic. Extrinsic motivation compels a user to perform the task because of the reward that follows as a consequence of the task. On the other hand, intrinsic motivation is when a user chooses to perform an activity because the activity itself is rewarding [12].

For the GES App, different motivational aspects are integrated through different activities for promoting behaviours that achieve the gamification of the GES App and user persistence.

**Objectives of gamification**

- Regular self-reporting by user for existing skills and new skills acquired.
- Contribution by user for skill repository and promoting sharing behaviours.
- Sense of accomplishment in user.

**Motivation Evaluation**

For the evaluation of motivation GES App activities are designed integrating different motivational aspects and user behaviours that are as follow:

1. **How should a user feel during the on-boarding process?**

Competitive

The Activity1: that is Self-reporting GES along with sub-activities are designed to enable user to feel competitive when on board. The activity of adding skill to the GES App initiate the progressive on-board behaviour with graphical representation of profile completion in form of percentage bar and that induce intrinsic motivation. Likewise, the activity of skill evaluation is extrinsic activity along with activity of adding evidence where skill profile is shown in form of pie chart depicting competitiveness of user as shown in Figure 50.


Figure (a): Profile completion in form of graph.

Figure (b): Skill profile completion in terms of experience, artifacts and references.

Figure 50: Graphical representation of activity progress to show competitiveness of user.

Collaborative

The collaborative aspect is achieved through Activity 4: Networking & Ethics with sub-activities of *Discussion board* and *Sharing LinkedIn profile* and both motivate user intrinsically through notifications and user feedbacks as shown in Figure 51.

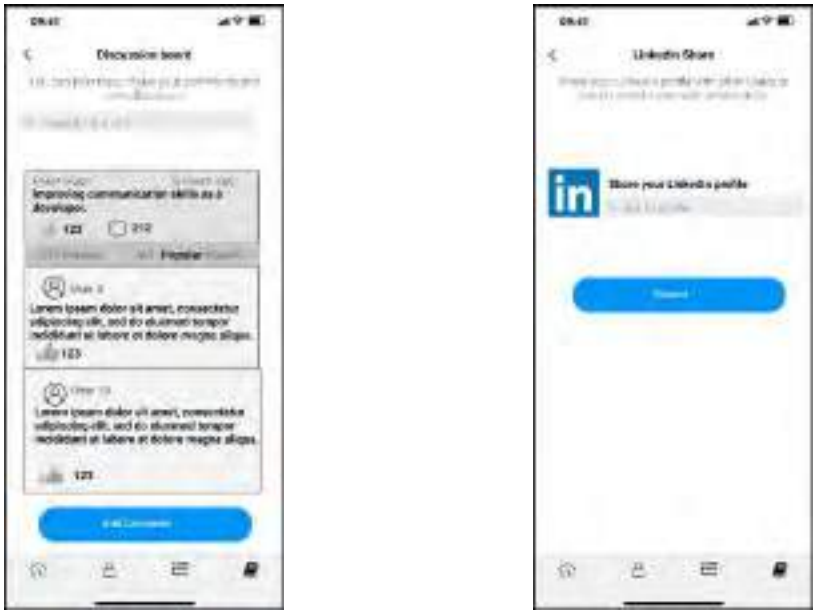
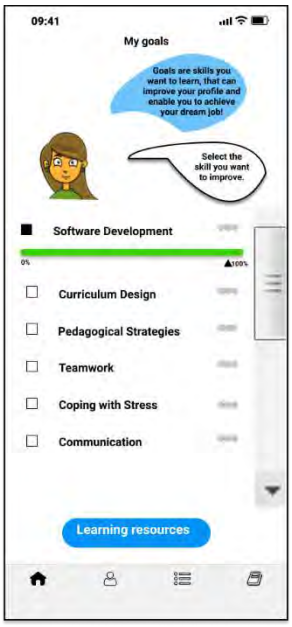


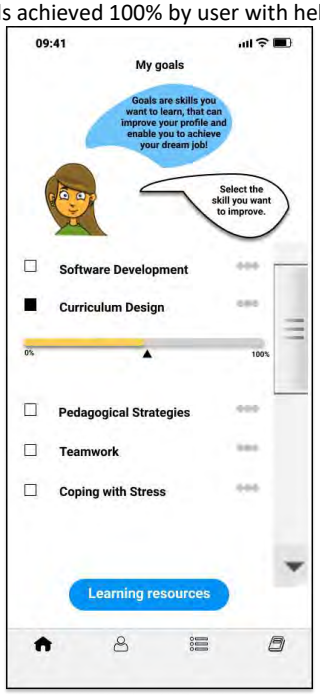
Figure 51: Collaborative aspect achieved through discussion board and LinkedIn profile feature

Accomplished with visible achievements

The GES App is design so that the different activities and sub-activities of the GES App enable a user to feel accomplished with help of features that show visible achievements. The features of app like user profile, activity of adding dream job, determination of gap are activities that enable user behaviour for being progressive while on board and induce intrinsic motivation among users. Similarly, the activity of adding goal, goals achieved, and use of learning resources are activities that are not only progressive on board but also integrated graphical depiction for motivating users extrinsically as shown in Figure 52. Similarly, the activity of using mini-games as learning resources in Activity 3 promotes extrinsic motivation as more the user will use the resource, the more knowledge level user will achieve in terms of goals.




Part (a): Goals achieved 100% by user with help of using learning resources to acquire knowledge regarding the skill.




Part(b): Goals achieved by user to some percentage by using limited number of learning resources and being motivated by app to use more through notifications.

Figure 52: Activity of goals showing the user accomplishment through completion bar.

Empowered

The GES app is designed to enable user to feel empowered through Activity 5 that is Employment readiness and through Activity 3 that is using learning resources. In Activity 5, the GES App offers input for CV from the user profile and skill profile created by users which is progressive on-board activity

and promotes intrinsic motivation among user by allowing user to feel in control of the information and output provided by app as shown in Figure 48. The Activity3, where learning resources are being used ensure extrinsic motivation by allocating points to the use of learning resources and showing in form of graph in goal activity as shown in Figure 52.

Surprised and curious

The Activity offering learning resources, for example Activity 3, where learning resources are being offered by the GES App to improve skill knowledge and to learn new skills and in Activity 5, where the user is offered learning resources to practice interview promotes intrinsic motivation among user and enhance the aspect of being curious and surprised. The notification for the availability of resources to improve skills and for representing it in the form of a goal completed compels a user to use these resources repeatedly, as shown in Figure 53.


Figure 53: Use of learning resources being translated as a percentage for a goal achieved.

Mini-Games

These games generate challenges, promote different levels of communication, and provide fun multimedia and immediate feedback [2]. Thus, enable players to take advantage of the gameplay to achieve certain goals would make players to be more motivated to play the game as the rule the process will make them feel better once the goal is achieved [6]. Considering the effectiveness of mobile games in e-learning, concept mini games has been integrated in the GES application as learning

resource for user to learn and improve skills. The design of app includes a scenario-based game as shown in Figure 54 where user aims to achieve optimal solution of problem using a certain scenario and every mistake leads to learning of how skill is implemented. Along with this links to external mini games like brain teaser, scenario-based games, and other resources are also part of GES App design.

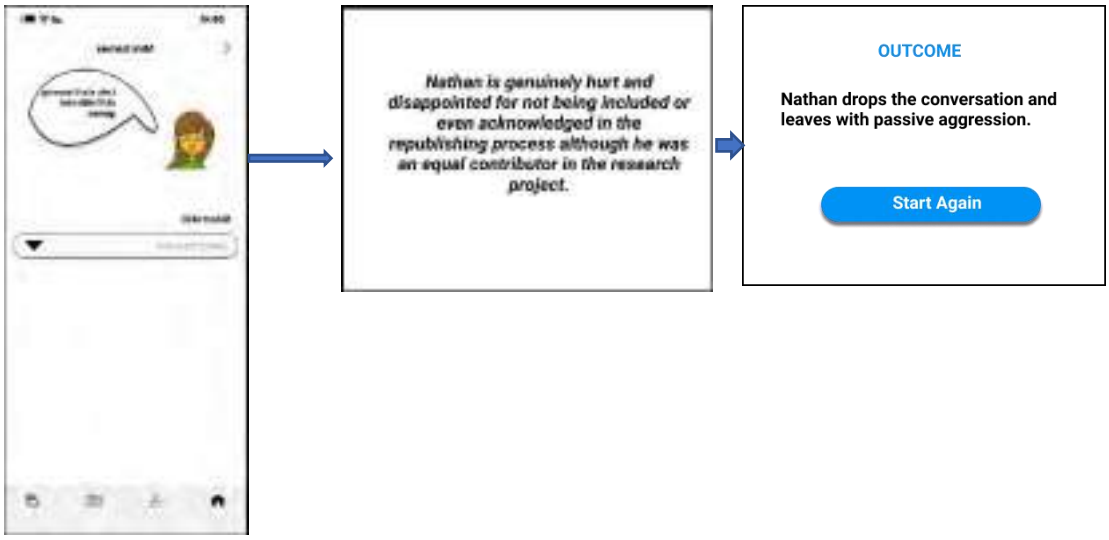



Figure 54: Scenario-based game design

# 7 Content Design

As shown in Figure 1 in Structure of the Deliverable, the design document offers input for Content development part of project therefore, from the activity and design the content required for the GES App have been identified. For the content design, all partner universities contributed to the endeavour where the content is researched and gathered as per the requirement of the application. The content developed for the GES App is shown in Table 21:

| **Activity** | **Sub-Activity / App functionality** | **Required content** | **Source** |
|---|---|---|---|
| Activity1 Self reporting GES | Add Skill Activity | Skills repository/ Skills shared by users | Partners / Users |
| | Search skill through repository | Skill repository | Partners |
| | Overview of skill recorded “My Skills” | | User profile |
| | Adding experience | | User to skills profile |
| | Adding Artifact | | User to skill profile |
| | Adding reference | | User to skill profile |
| Activity2: Dream job | Add Dream job | Career clusters with roles | Partners |
| | Create dream job | Industry, role, categorised skills repository | Partners |
| | Overview of goals | Skill added as goals | User |
| Activity3: Practice Selected skill | Practice skill through physical learning resources | Location based search option | Partners or search option with keyword by app |
| | Practice skills through online learning resources (links) | Links to learning resources (videos, papers, free courses) | Partners or search option with keyword by app |
| | Practice skills through information of skills stored in repository | Skill repository with basic information of skills stored | Partners |
| | Sharing learning resources | Learning resources link | User |
| | Mini games | Links to mini games | Partners |
| Activity4: Networking & Ethics | Discussion board | | Users |
| | Sharing LinkedIn profile | | User to user profile |
| | Sharing Skills/ learning resources | Skills added to repository and links shared by user | Users |
| Activity5: Employment Readiness | Create CV | User and skill profile | User |
| | CV through templates | Saved templates / phrase bank | Partners |

| | | | |
|---|---|---|---|
| | Practice job interview | Interview learning resources | Search option /links by partners |

Table 21: Source of content with respect to activities and sub-activities

# 8 Summary

This document provides an overview of the design specifications for the GES App. The design methodology and the design rationale are described. The GES App is based on a conceptual model of skills and a framework describing how the skills relate to the other concepts related to GES are described. The front-end of the design is prototyped using the Figma application, to develop an interactive prototype to help both the users and the developers to acquire a good understanding of the design as well as to obtain relevant feedback from the users.

The design is based on five main activities related to the development and enhancement of GES, which are documentation and self-assessment of skills, planning for a specific job (Dream Job), access to learning resources for enhancing skills, networking and ethics and enhancing employment readiness through preparing a CV. The functionalities included in the GES App are designed to support these main activities. Ideas from Service Design has been used to describe user journeys to illustrate the details of the activities and the corresponding functionalities that are required in the GES App.

An agile and iterative design and development methodology was adopted, and the design has been through several iterations based on feedback from the project partners and potential user groups. The interactive prototype has been used actively by the developers of the GES App (O4). The feedback from the developers were very positive and they found the Figma prototype to be of great help while developing the GES App in Unity (see O4 deliverable).

The work described in this report has been published in several scientific conferences: [5] and [17-19].

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