

# **User Guide**

Sustainable Work through Women-in-tech Application for Older Women in Malaysia and Thailand: Integrating Action Research and Design Science Approach

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Try to make all sections brief, straight to the point, and include screenshots/images  
(From phone view) IPHONE !

Address a user as "You", for example "You have to click here "

## 1. Introduction

### 1.1. What is Women-In-Tech

Women-in-tech application is a web application designed for older women. The purpose of this application is to allow older women to familiarize themselves with technology through a more user-friendly, for them, web application. This application allows the users to share their background with the application development team through the chatbot (section 2.7), to explore new interesting topics through the use of the recommender submodule (section 2.8). And finally, to interact with one another, share each other's experiences, and learn from one another through the forum submodule (section 2.9).

### 1.2. Where to start

The application is developed for use from mobile phone devices. Hence, it is recommended that you use a mobile phone device while interacting with the web application. To begin using the application, proceed to the following link: <https://fit3170-49455.web.app/>

Upon loading the link provided above, you should be redirected to the language selection page discussed in the next section (section 2.1)

#### 1.2.1 Supported Browsers

Google	Safari	Firefox	IE	Opera	Edge
yes	yes	yes	no	Yes	Yes

## 2. Program User Workspace

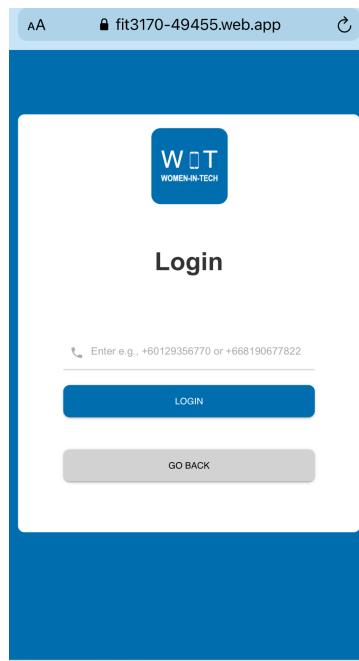
### 2.1. Language selection



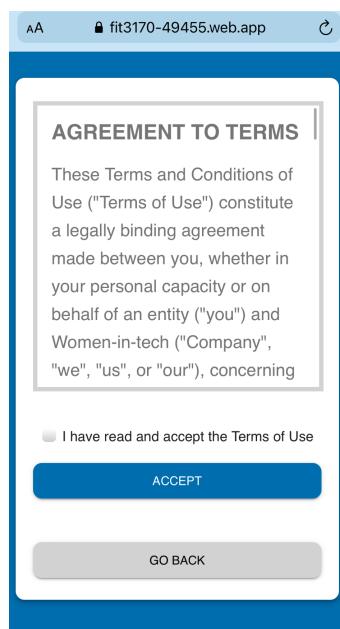
The first page you, as a user, are presented with, upon visiting the web application, is the language selection page. The language page presents you with four language options: English (Default), Mandarin, Malay, and Thai. To choose your preferred language, simply click on the preferred language button.

Please note that this language selection is not final, and you will be able to change the chosen language at any time during your use of the application (section 2.6).

## 2.2. Creating your account

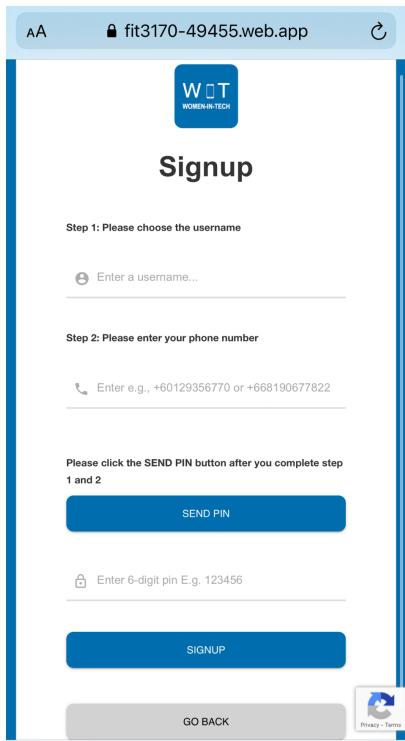


When first using the application, after selecting your language of choice, the following page will present you with the option to input your mobile phone number. If you would like to go back to the language selection page, you may click on the "**GO BACK**" button. This page is where you enter your phone number (Make sure this number is available to you) that is to be used with the application. After doing so, upon clicking "**LOGIN**", if no account is associated with the number, the application will redirect you to the terms of use page:



Make sure to read the terms of use thoroughly before proceeding at this stage. Once you have read and decided to agree to the terms of use, confirm your decision by ticking the

checkbox labeled “I have read and accept the Terms of Use”, and click “ACCEPT”. This should redirect you to the signup page:



On this page, you fill up all the information that will be associated with the new account:

- Username: a nickname or a group of characters and/or numbers. Preferably one that you can remember easily. This will be used when other users want to identify you in the forum (section 2.9) by your posts, comments, or replies.
- Phone number: A phone number that will be associated with this account. The phone number needs to include the country and area code. Eg: +60124035687. Make sure to have the phone associated with this number at hand and ready to receive an SMS pin code.

After performing the steps above, make sure that all text fields are displayed in green as an indicator that all the input fields are correct.

The image consists of two side-by-side screenshots of a mobile application's "Signup" screen. Both screenshots feature the Women-in-Tech logo at the top.

**Left Screenshot (Invalid Input):**

- Username Field:** Labeled "Step 1: Please choose the username". Below it is an input field containing "this is my username". A red error message below the field states: "Username should be 5 to 15 characters long and not have any special characters like !@#\$%^&\*. Please try again."
- Phone Number Field:** Labeled "Step 2: Please enter your phone number". Below it is an input field containing "+60124035687". A red error message below the field states: "Invalid phone number. Do avoid any letters, special characters and spaces. Please try again."
- Buttons:** A blue "Send Pin" button below the phone number field, and a blue "Signup" button at the bottom.

**Right Screenshot (Valid Input):**

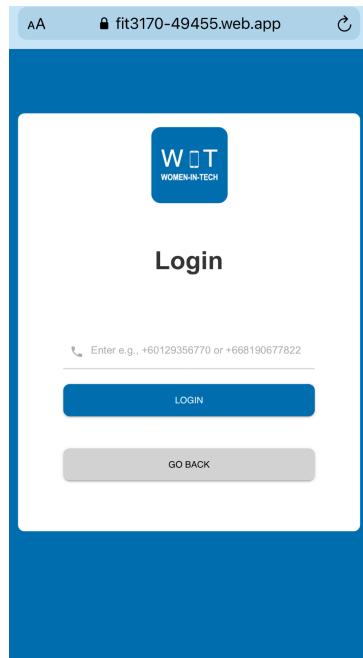
- Username Field:** Labeled "Step 1: Please choose the username". Below it is an input field containing "this username".
- Phone Number Field:** Labeled "Step 2: Please enter your phone number". Below it is an input field containing "+60124035687".
- Text:** A message above the "Send Pin" button says "Please click the SEND PIN button after you complete step 1 and 2".
- Buttons:** A blue "Send Pin" button, a blue "Signup" button at the bottom, and a grey "Go Back" button below the "Signup" button.

The image on the left shows the form filled up with both username and phone number incorrectly. The image on the right displays the form filled up with all the valid inputs.

After this step, you can proceed to "**Send Pin**". After doing so a 6 digit pin code will be sent to the phone number that has been filled up in the form. It may take up to a minute to send the pin via SMS. This pin code is then to be filled up into the "Enter 6 digit pin" section. After doing so, you may click "**Sign Up**". Upon successful signup, the system should redirect you to the main page (section 2.4) where you may begin to use the application.

## 2.3. Signing in using your account

Assuming you have already registered for the application and have a phone number that is associated with an account in the Women-in-tech application. Upon arriving on to the login screen:



Fill up the phone number that is associated with the account including the country and area code. Eg: +60124035687. Click “**LOGIN**”. This action will then bring you to the main page of the application (section 2.4)

## 2.4. Main page

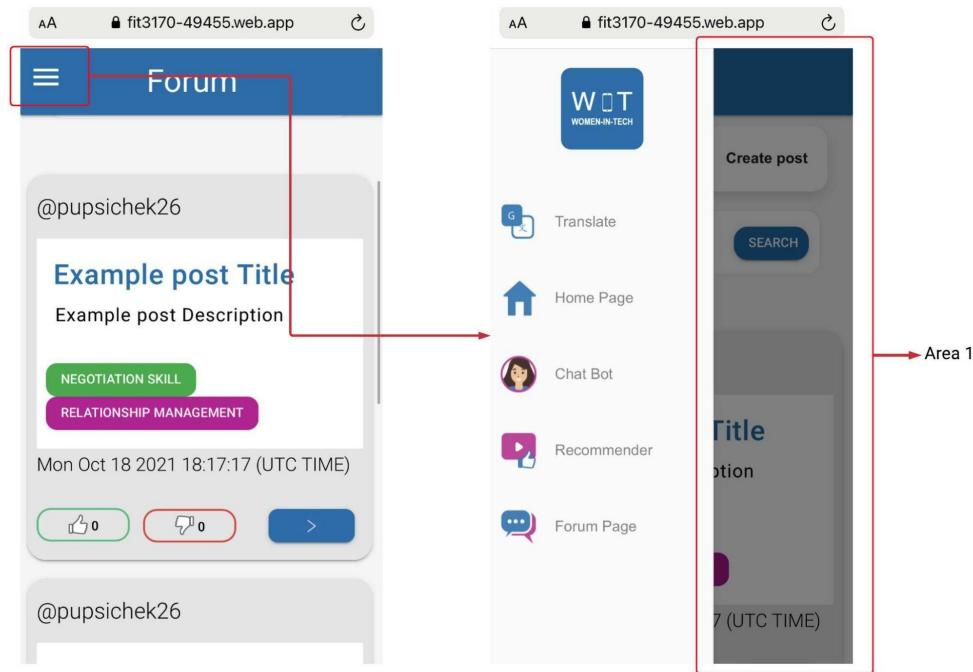
The image displays the "Home Page" of the application. The top navigation bar is blue with the title "Home Page". The main content area is titled "Welcome @pupsichek26". It says "Choose one of the following:" and lists three options: "Chat Bot", "Recommender", and "Forum". Each option has a brief description and an "OPEN [Subsection Name]" button.

- Chat Bot**: Answer simple questions and get the recommendations according to your interests. Button: OPEN CHAT BOT.
- Recommender**: Get recommendations of the videos and articles that suit your interests. Button: OPEN THE RECOMMENDER.
- Forum**: Interact with other users by liking and commenting their posts and post your own thoughts and questions. Button: OPEN FORUM.

Main page is the first screen that you see after logging in/signing up into the application. You are presented with three options: **Chatbot**, **Recommender** and **Forum**. Read through the description of each subsection and pick, which one you would like to proceed to. In order to be redirected to the page you have picked, click on the **Open \*Subsection Name\*** Button,

which is located at the bottom of each subsection box and you will be immediately redirected.

## 2.5. Navigation Bar

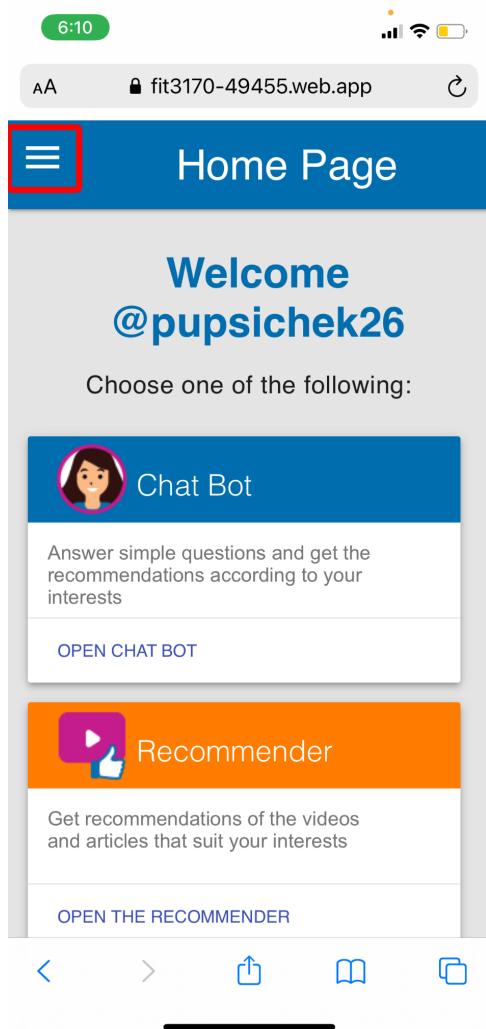


The navigation bar can be accessed upon clicking the **hamburger menu** icon on every page in the application except the chatbot page. In the navigation bar you may find the translation element (section 2.6) and buttons corresponding to every page of the application including the home page, chatbot, recommender and forum page. If you wish to switch from the current page to another one, you should click on the button corresponding to that page and you will be immediately redirected.

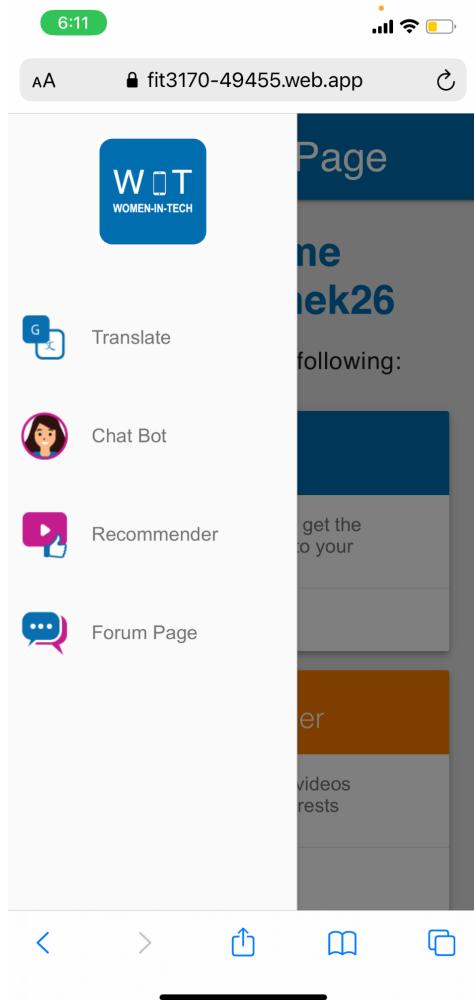
In order to close the navigation tab, you should click outside of the navigation bar, which is represented as Area 1 in the screenshot above.

## 2.6. Translation

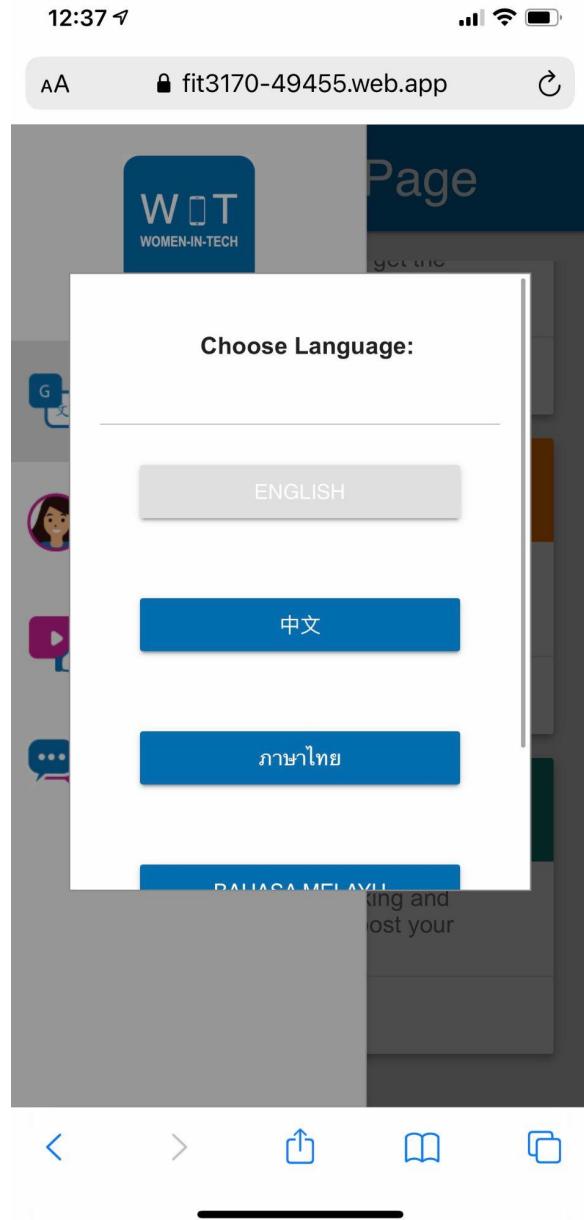
The Women-in-tech application is available to the users in four different languages: English, Chinese, Malay, and Thai. This was previously seen in the landing page of the application (section 2.1). As mentioned, the user can change their preferred language at any time during the use of the application, except for when answering questions in the chat bot (due to the missing sidebar). In order to change the application language, extend the sidebar that is located on the top left corner of the screen (highlighted here in a red rectangle):



After doing so, you should be able to see a screen similar to this:



From here, you can click on "**Translate**". This should open a modal box similar to the following:

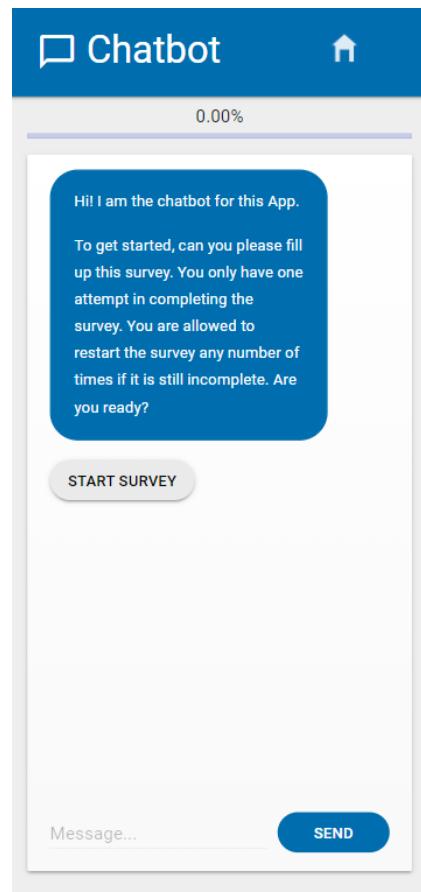


From here you can select your preferred language. After doing so, scroll down on the modal box and select the “**BACK**” button. That’s it, the application should now be translated to the chosen language.

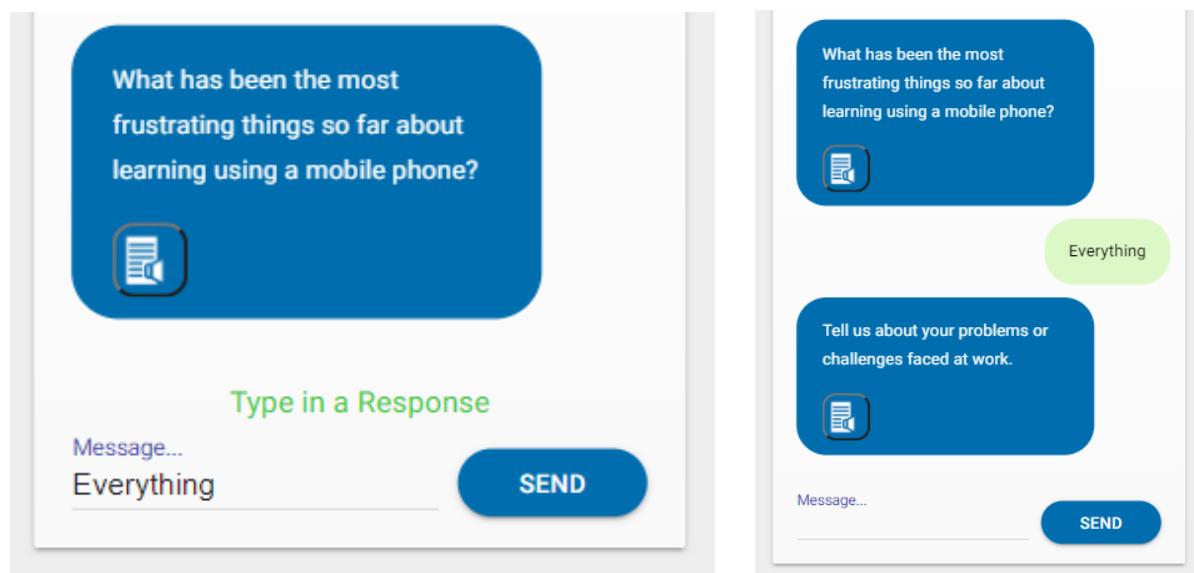
## 2.7. Chatbot

### 2.7.1 Overview

The chatbot aims to acquire background information of our users (elderly women). It acts as a person in a messaging system, where users are supposed to answer questions in a chatting style.

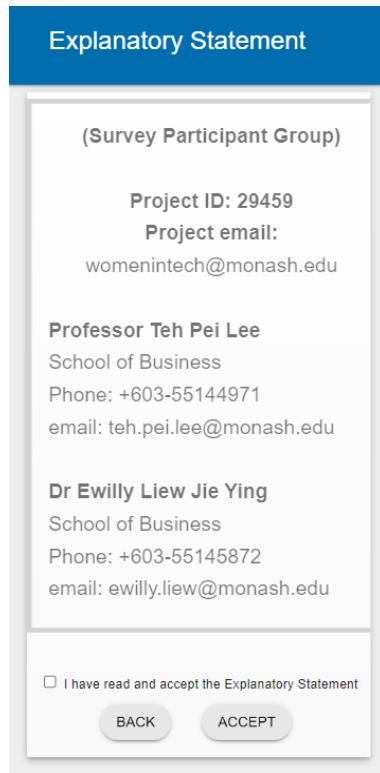


The chatbot consists of a single screen. It has a typical messaging layout, with messages from the chatbot in bubbles on the left and your messages in bubbles on the right. Buttons are occasionally presented to you for certain questions. The message box at the bottom of the chatbot can be used to answer certain questions by typing and tapping the send button.



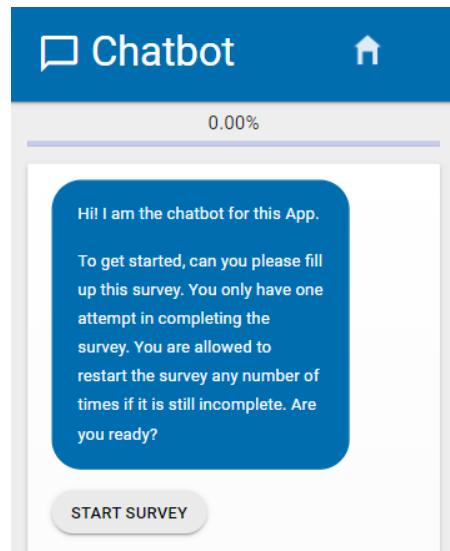
There is a series of questions that need to be answered once you press the “Start Survey” button. Following that, you would be asked to complete the survey, with the option to pause the survey if you would like to stop. The survey can then be resumed as you wish. Additionally, you are also given the option to restart the survey. To determine your current progress in the survey, a progress bar is displayed at the top of the screen to indicate how many questions are left. A closing message will be displayed once the survey is complete.

## 2.7.2 Explanatory Statement



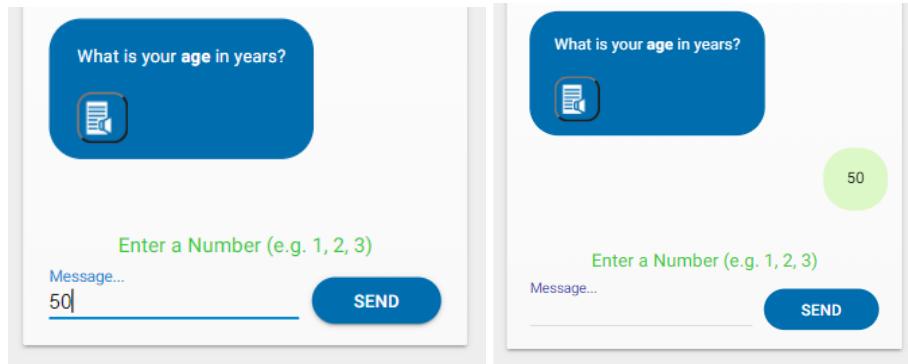
Before being able to access the chatbot, an explanatory statement will be displayed containing the explanation of what the research involves, the expected demographic of the survey, withdrawal condition for the survey, reward payment details for participants, confidentiality of the survey, results of the survey and complaint details for the survey. Scrolling to the bottom of the text presents a pink-coloured link to the full explanatory statement. For first time users, you are required to fully read and understand the full explanatory statement before ticking the box that acknowledges that you have read and accepted the statement. Afterwards, you may press the accept button to proceed to the chatbot.

### 2.7.3 Starting the Survey



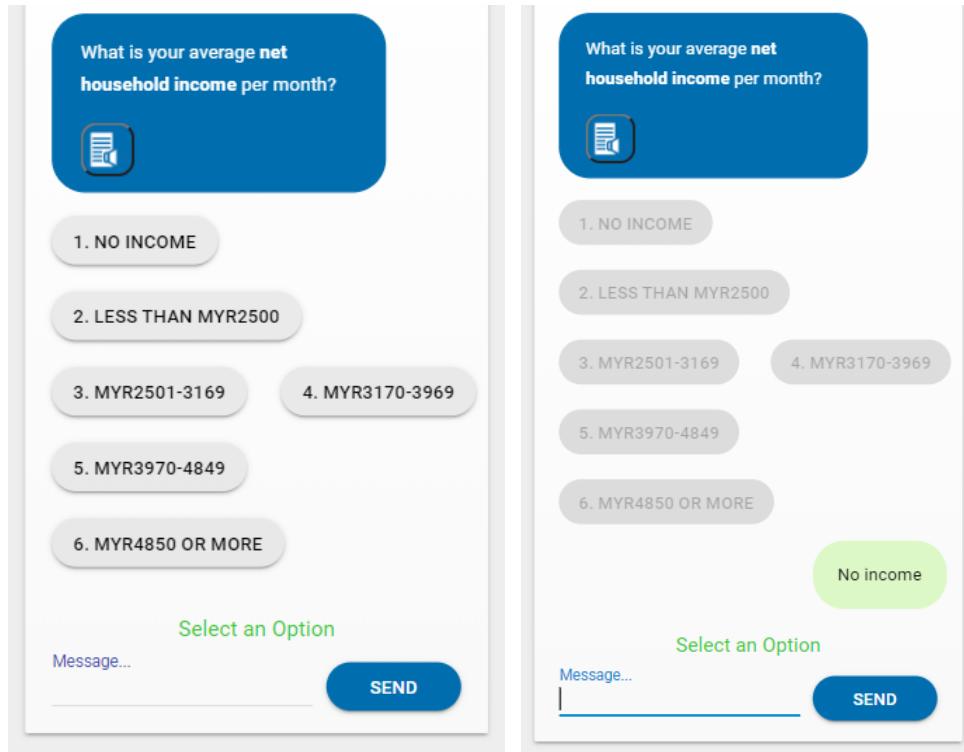
For first-time users, you will receive an opening message from the chatbot upon visiting the Chatbot page. You can begin the survey by pressing the “Start Survey” button. If you wish to exit the page, you can press the Home icon present on the top right of the screen to return to the Home Page.

### 2.7.4 Answering Questions



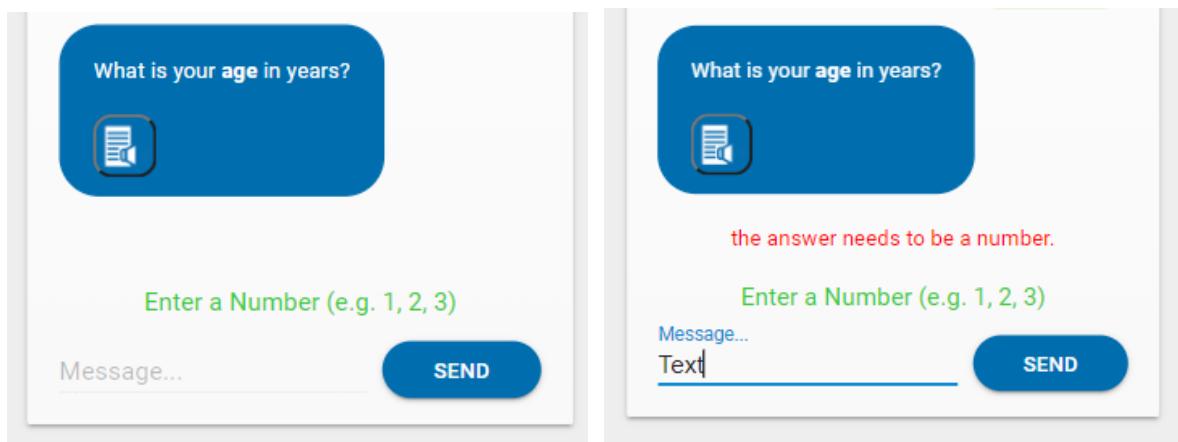
Throughout the survey, you will be presented with a few types of questions which can be answered in different ways. Any answer given is displayed in the chat box as a green message on the right.

#### 2.7.4.1 Answering Multiple-Choice Questions



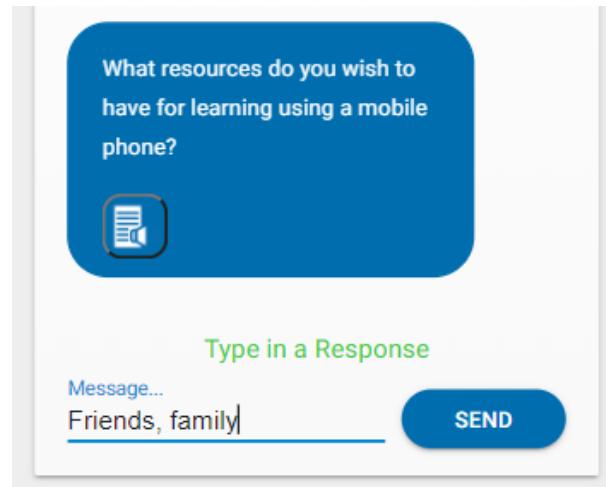
Multiple-choice questions are presented as a question from the chatbot followed by gray buttons containing an option number and options for the question. You can tap on the gray buttons to select your answer accordingly. You are not allowed to answer the question outside of the given options. Besides tapping on the button, you can input the option number corresponding to the option you wish to select in the message box. After selecting an answer, the buttons are grayed out and are disabled.

#### 2.7.4.2 Answering Numeric Questions



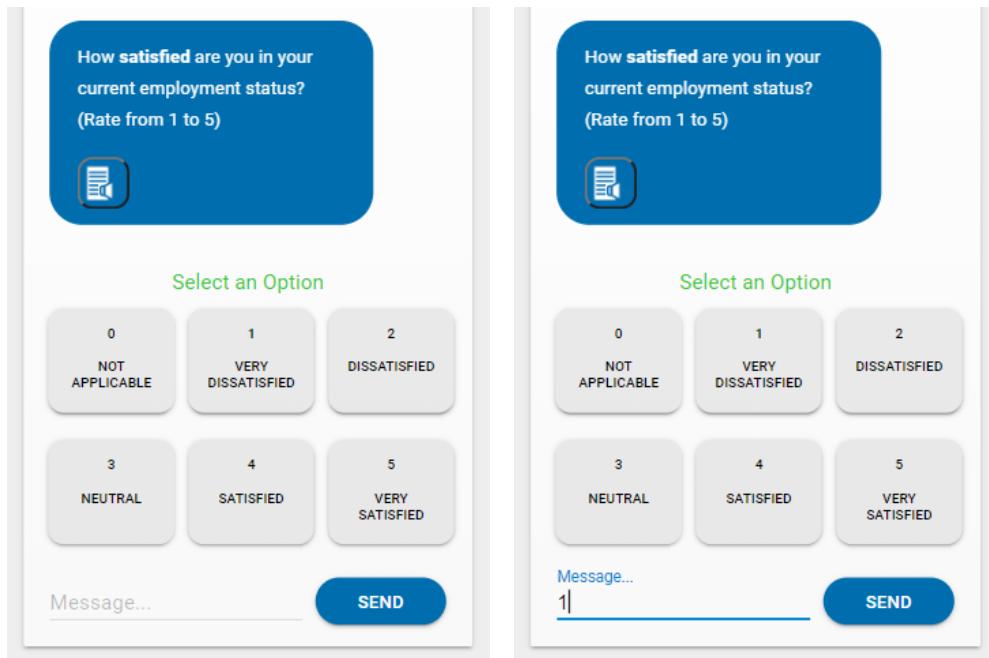
Numeric questions are presented as a question from the chatbot. You are required to input numeric answers in the input box at the bottom of the chatbot. Answers outside the required range may be skipped (section 2.7.3.6). Answers in non-numeric/invalid form cannot be sent (section 2.7.3.7).

#### 2.7.4.3 Answering Text Questions



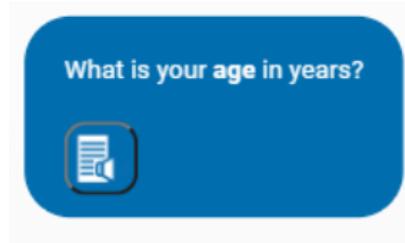
Long text questions are presented as a question from the chatbot. You are required to answer by providing a custom text input in the message box. There is no word limit for such questions. No options are given.

#### 2.7.4.4 Answering Likert Scale Questions



Likert scale questions are presented as a question from the chatbot which consist of categories such as agreeableness, satisfaction, etc. In these questions, a set of button choices and their descriptions are generated above the message box, which you can select. You should select the description that relates to you the best. You are allowed to manually enter the numbers that correlate to the likert scale options in the message box.

#### 2.7.4.5 Text-to-Speech

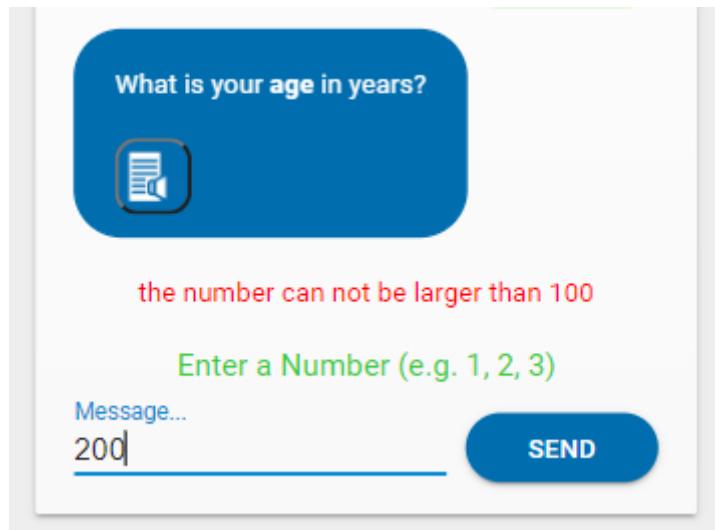


If you trouble reading the questions presented, you can utilise the Text-to-Speech functionality. Below each question, a button with a Text-to-Speech icon is present in the chat bubble. You can tap this button to have the question read out to you.

#### 2.7.4.6 Skipping Questions

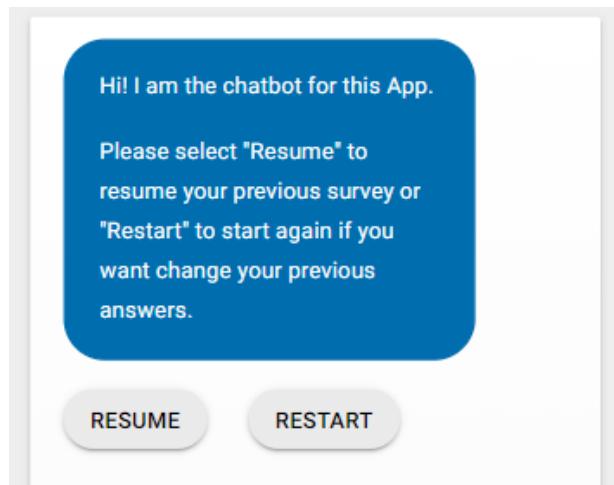
Questions that require either a specific answer or a range of answers may cause the questions to be skipped as required. Answers that do not fit the response required may cause the survey to end immediately.

#### 2.7.4.7 Hints and Restrictions



When typing an answer, a hint is presented to help guide you on how to answer the question. The hint is in the form of green text above the message box. Invalid inputs for questions which allow usage of the message box displays another red hint text above the green text, informing you why the answer is invalid. You are not allowed to send the message and will have to change your answer accordingly.

## 2.7.5 Pausing the Survey

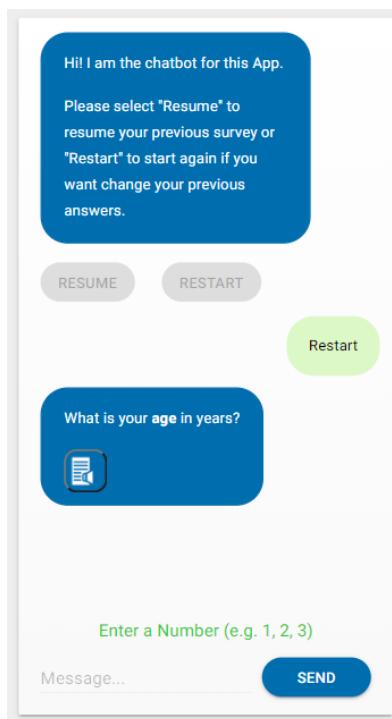


When answering the survey, you are allowed to leave the chatbot page. This pauses the survey. When returning, you will be greeted with a returning message and have two options.

### 2.7.5.1 Resuming

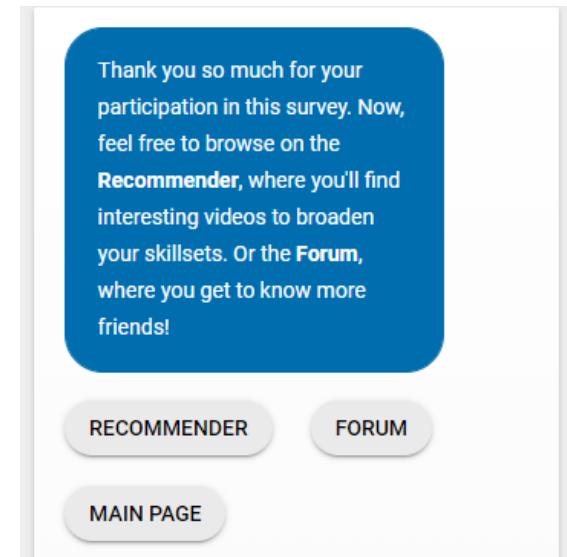
You are given the option to resume a survey if you exited the chatbot abruptly. After pressing resume, the previous questions and answers that have been completed will be displayed in the chat box history, while the next unanswered question will be displayed as the most recent message. You are able to resume answering the questions from there.

### 2.7.5.2 Restarting



You are also given the option to restart the survey if you are not satisfied with your previous responses and would like to change all of them. After the “restart” button has been pressed, your past stored responses will be deleted. The first question would then be displayed for you to start over.

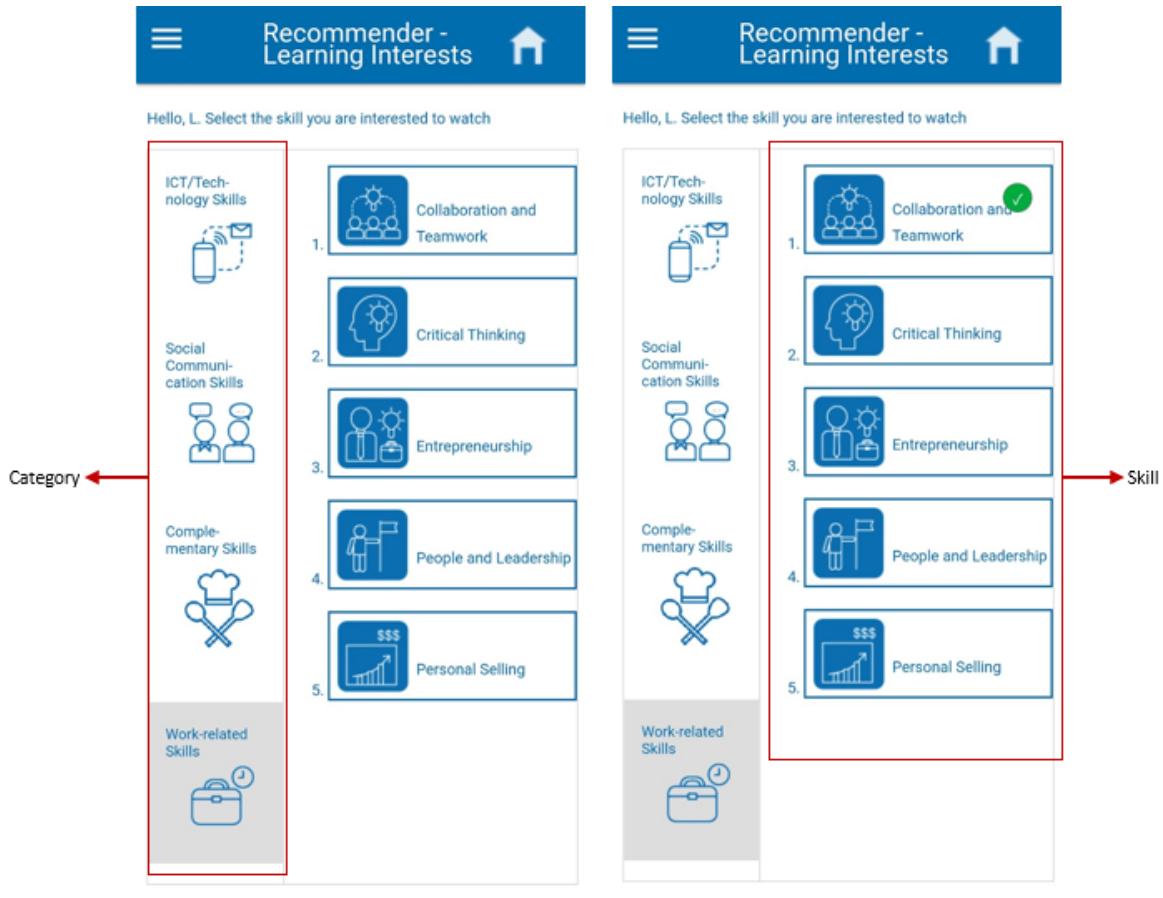
## 2.7.6 Ending the Survey



Once you have finished answering all questions, the chatbot will then guide you to other sections of the application, which includes the Recommender (2.7), Forum (2.8) and Main Page (2.4).

## 2.8 Recommender

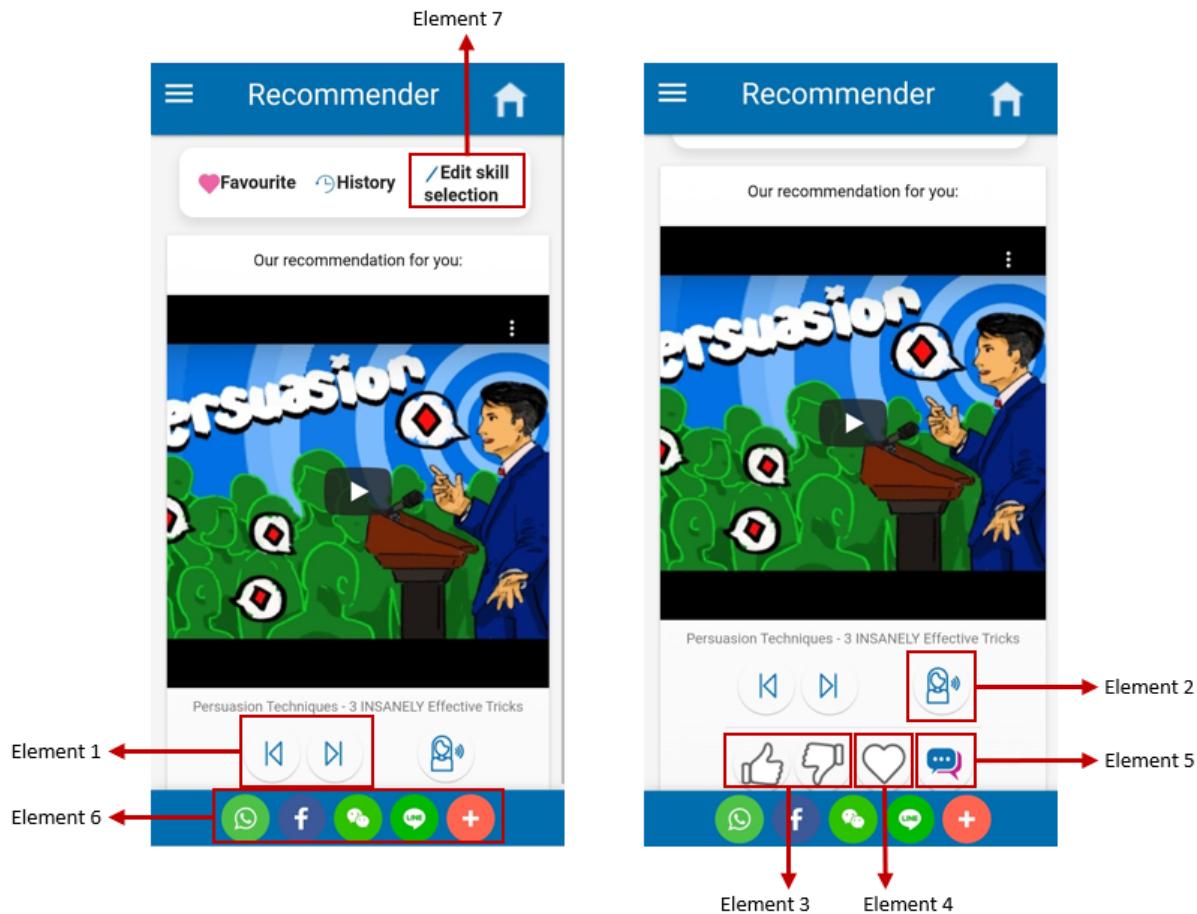
### 2.8.1 Choosing a learning interest



Upon visiting the recommender section for the first time, you will see a list of learning interests. Tap on any of the categories on the left (**ICT/Technology Skills**, **Social Communication Skills**, **Complementary Skills**, **Work-related Skills**) to view a list of skills belonging to that category. Then, tap on a skill you are interested in. A green tick will show in the box of the skill you chose. You will be taken to the video player, which will be explained more in the next section 2.7.2.

## 2.8.2 Video Player

### 2.8.2.1 Playing the video



Once a skill has been chosen as seen in section 2.7.1, a video related to that skill will be shown to you. Tap on it to play and tap again to pause it.

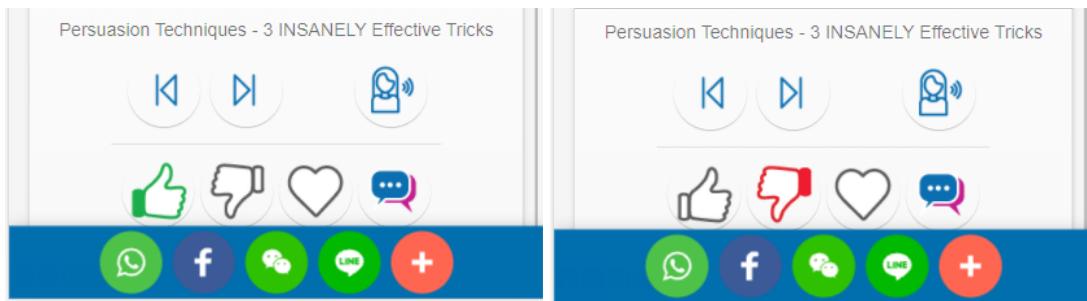
### 2.8.2.2 Playback buttons (Element 1)

Below the title of the video, you can find the playback buttons. Tap on the left button to go to the back to the previous video and tap on the right button to go to the next video.

### 2.8.2.3 Text-to-speech (Element 2)

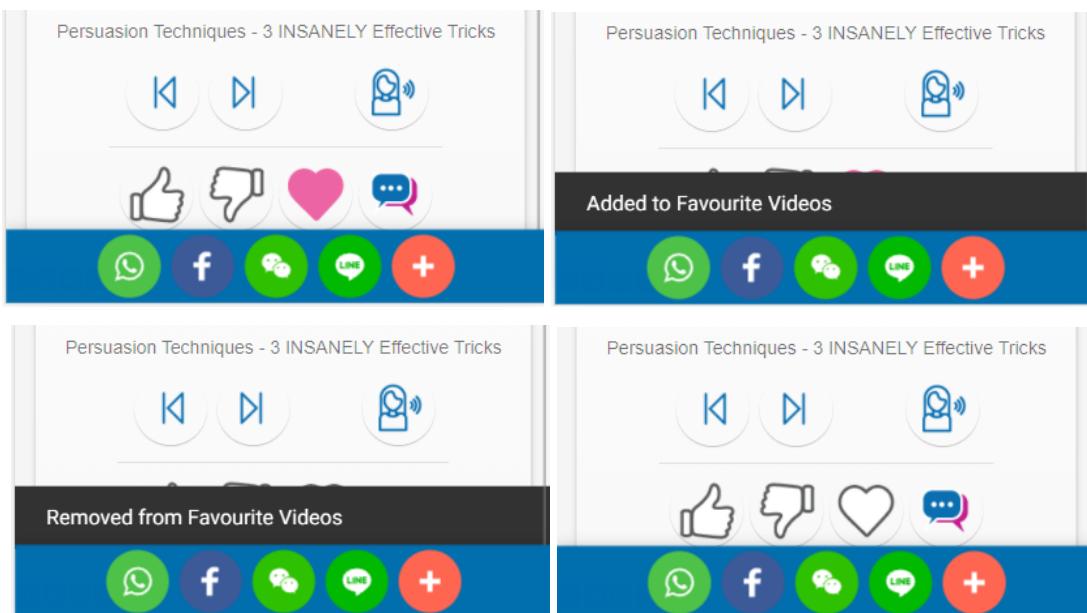
You can choose to listen to the video title instead of reading it by selecting the speaker icon.

#### 2.8.2.4 Liking/disliking the video (Element 3)



To like a video, tap on the thumbs up button and it will turn green indicating it is selected. To dislike a video, tap on the thumbs down button and it will turn red.

#### 2.8.2.5 Adding the video to favourites (Element 4)



You can choose to add a certain video into favourites by tapping the heart icon below. The heart will be filled and a message will pop up stating that the video has been added to your favourites. To undo this action, tap on the filled heart icon again and it will return to an empty heart and a message will appear notifying you the video has been removed from your favourites.

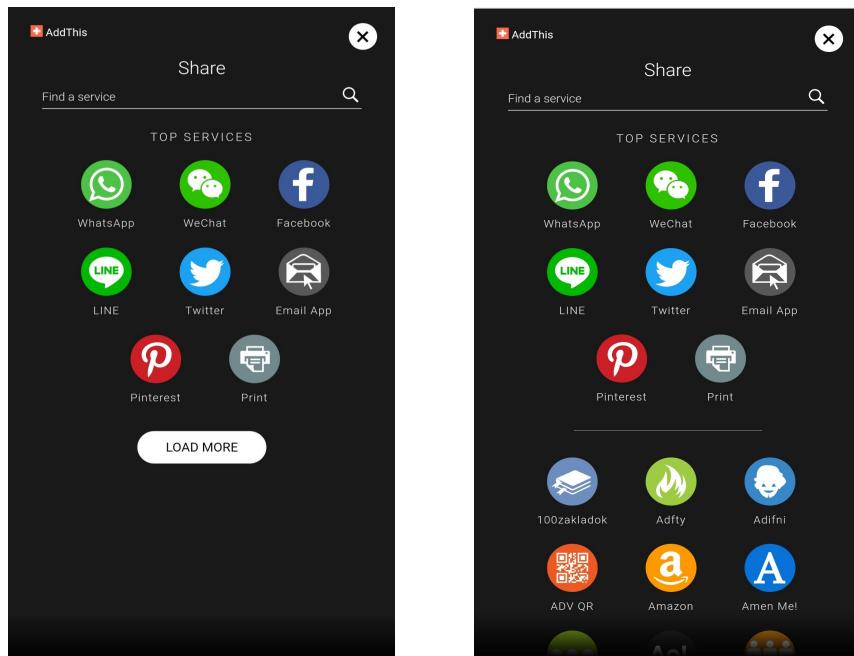
#### 2.8.2.6 Commenting on the video (Element 5)

To share your comments with other users, you can join the discussion by clicking on the forum icon. Please refer to section 2.8.5.4 Comment section for more information.

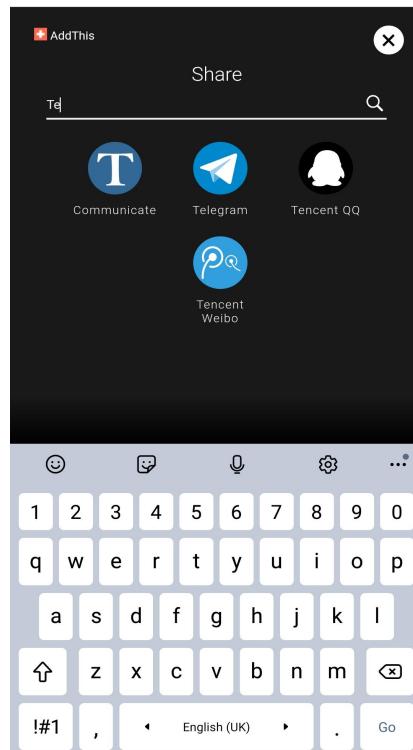
#### 2.8.2.7 Sharing the video (Element 6)

To share a video, you can share the video using different social media channels located at the bottom of the page. You will be redirected to the apps of your choice.

If the platform you are looking to share with is not available, select the “+” icon located to the furthest right. Tap on the “load more” button to find more services.



If you know what service you are looking for, tap on the search bar and enter the name of the service.



## 2.8.2.8 Watching a video from another learning interest (Element 7)

You need to select the “Edit skill selection” tab located on the top of the page. Refer to section 2.7.1 for more details.

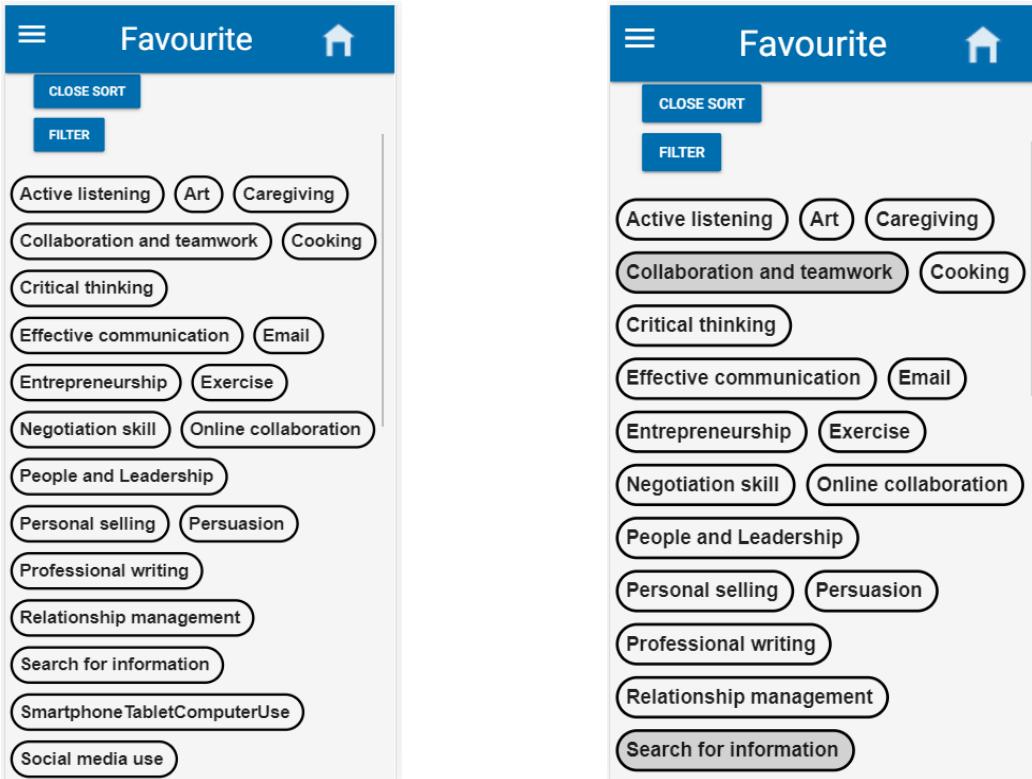
## 2.8.3 Favourites

By selecting the favourite button on the video player page, it will go to the favourites page where all your favourite videos are stored.



### 2.8.3.1 Sorting videos (Element 1)

Clicking the “sort by interest” button will expand a list of interest tags for selection. The selected tags are darkened then click on the “filter” button to filter the videos or “close sort” to hide the tags.



### 2.8.3.2 Deleting video in favourites (Element 3)

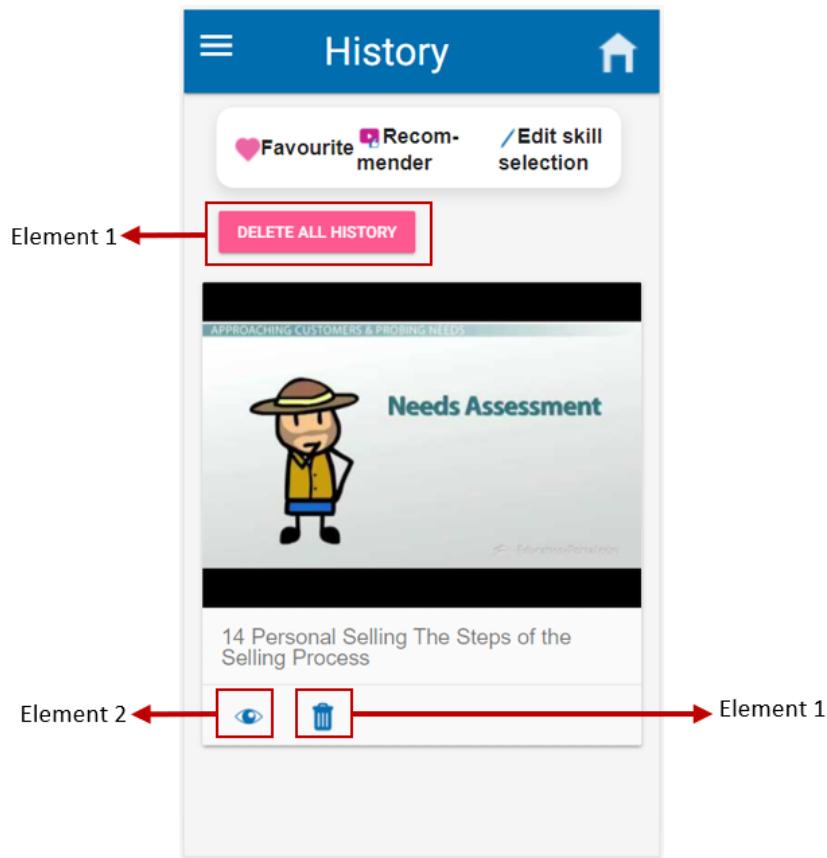
To remove a video, click on the bin icon located in the particular video card. You can choose to delete all videos at once by clicking the "delete all favourite" button.

### 2.8.3.3 Watching a video from favourites (Element 2)

To rewatch a video, click on the eye icon located in the particular video card and it will bring you back to the video player page with the video you selected.

## 2.8.4 History

By clicking the history button on the video player page, it will bring you to the history page where all previously watched videos are located.



#### 2.8.4.1 Deleting video in history (Element 1)

To remove a video, click on the bin icon located in the particular video card. You can choose to delete all videos at once by clicking the “delete all history” button.

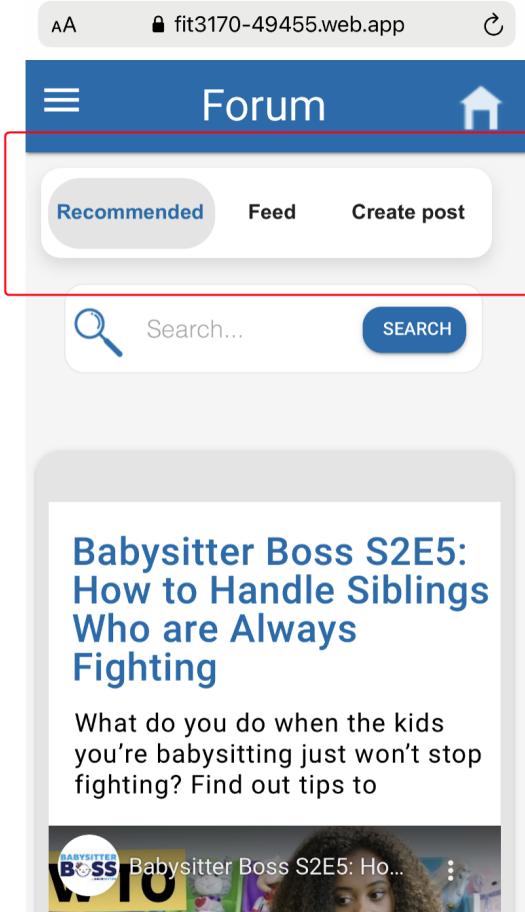
#### 2.8.4.2 Watching a video from history (Element 2)

To rewatch a video, click on the eye icon located in the particular video card and it will bring you back to the video player page with the video you selected.

## 2.9. Forum

### 2.9.1 Tabs

The forum interface consists of three tabs: **Recommended**, **Feed** and **Create Post**.



In order to navigate through the tabs, click on the tab you would like to proceed to.

#### 2.9.1.1 Recommended Tab

This tab includes the posts from the recommender subsection.

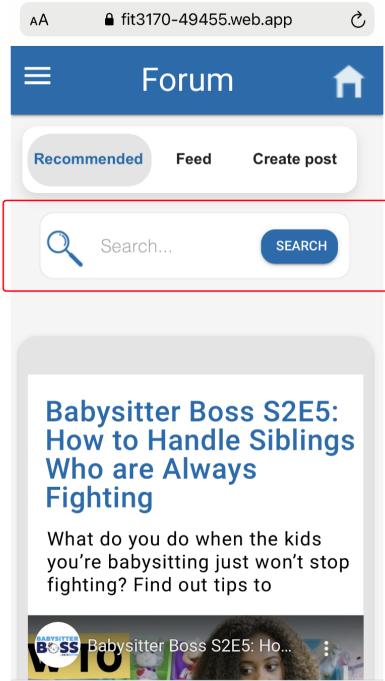
#### 2.9.1.2 Feed Tab

This tab contains the posts that you have added to your favorites (section 2.9.8.1) and all the posts that you created yourself.

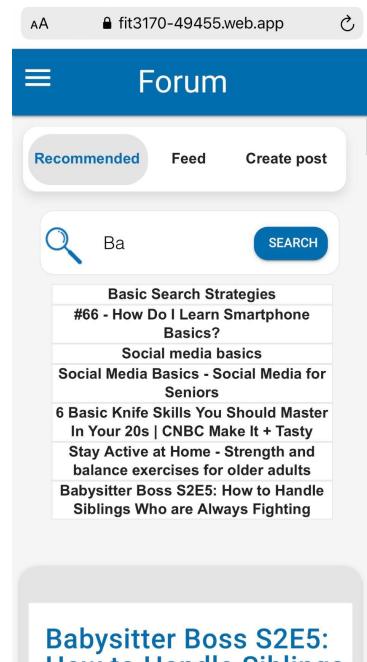
#### 2.9.1.3 Create Post Tab

This tab contains the post creation element (section 2.9.3) and, below it, there are all the posts created by other users sorted from the newest to the oldest ones.

### 2.9.2 Search



The search bar is located at every one of the three tabs on the forum submodule. You can use the search bar to search for a post using its title or by its interest only. The search bar restricts you from searching the posts within the tab that you are currently on (eg. recommender). To manually search the post by its title, the search input needs to begin from the first character. It is not possible to search for a post using a substring of its title. The input is case-sensitive. If searching for a post using interests, all interests are upper case, and the same rules apply regarding starting from the first character. Essentially, the search function works by allowing the user to find posts whose title or interest(s) begin with the search input provided. To help with the search by title, autocomplete suggestions will be provided of the 10 most relevant post titles associated with the characters that have been typed into the search field so far:



Upon seeing the search result in the autocomplete, you may click the suggestion and it will appear in the search box. You can then click “**Search**” to view results associated with that input.

Upon clicking the “**Search**” button, the system will display the number of results that it has been able to find according to your search input.

### 2.9.3 Post creation

The image displays two screenshots of a 'New Forum Post' interface. The left screenshot shows the initial form with a red box around the 'TITLE:' field and a red arrow labeled 'Element 1' pointing to it. Below it is a large text area labeled 'Description'. To the right of the text area is a blue button labeled 'VIDEO' with a red arrow labeled 'Element 2' pointing to it. At the bottom of the left screenshot, there is a section titled 'Choose 2 interests for your post' with two buttons: 'ICT/Technology Skills' and 'Browser Search'. The right screenshot shows the same interface with additional skill categories. A red box highlights the 'Complementary Skills' section, which includes 'Active Listening', 'Effective Communication', 'Negotiation Skill', 'Persuasion', and 'Relationship Management'. Another red box highlights the 'Work-related Skills' section, which includes 'Art', 'Caregiving', 'Cooking', 'Exercise', and 'Professional Writing'. A red arrow labeled 'Element 3' points from the right side of the 'Complementary Skills' section to the 'Work-related Skills' section. At the bottom right of the right screenshot is a blue button labeled 'POST' with a red arrow labeled 'Element 4' pointing to it.

#### 2.9.3.1 Title and description (Element 1)

These fields require you to type in the title and description of the post. You may leave those fields blank, but this will make your post harder to search for ( section 2.9.2 ).

#### 2.9.3.2 Video Url (Element 2)

This diagram illustrates the addition of a video URL field. On the left, there is a screenshot of the interface showing a blue 'VIDEO' button. An arrow points from this button to a second screenshot on the right. In the second screenshot, the 'VIDEO' button is positioned above a new input field with the placeholder text 'Add a video link here'. Below this input field is the same 'Choose 2 interests for your post' section as in the first screenshot.

Video Url function is optional; if you want to include a video in your post click the **Add Video** button and paste a video link to the popup field. You have to ensure that the video link is a valid YouTube link, which starts with "[https://youtu.be/...](https://youtu.be/)".

### 2.9.3.3 Choose Your Interest (Element 3)

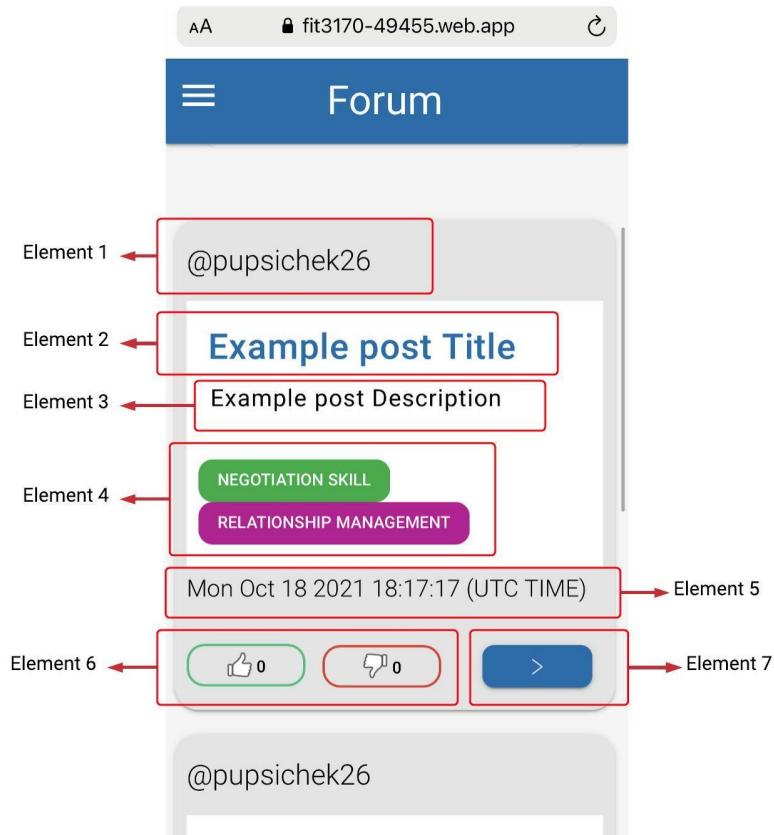
You have to assign your post one or two interests in order to be able to post it. These interests should be related to the post content since it works as a short post summary for other users. There are four subsections, where you may choose your interests from, make sure that you have chosen at least one interest and that the total number of interests you have picked does not exceed two.

### 2.9.3.4 Post (Element 4)

After inputting all the information, you may want to recheck it before clicking the post button. Once you are sure that all the information is right, click the post button, which will upload your post to the feed and you will not be able to edit it anymore. If something in the post is incorrect, you may delete the post (section 2.9.5.2)

## 2.9.4 Post Interaction

### 2.9.4.1 All post elements



- **Element 1:** Username of the post creator
- **Element 2:** Title of the post
- **Element 3:** Description of the post

- **Element 4:** Interests associated with that post
- **Element 5:** Date of creation of that post in UTC time format

#### 2.9.4.2 Interaction with the Video



If a post contains a video, you may interact with it in the same way as you interact with any video on youtube, for example, click on it to play and click again to pause it. More detailed information may be found on

<https://creatoracademy.youtube.com/page/course/bootcamp-foundations?hl=en>

#### 2.9.4.3 Likes and dislikes (Element 6)

If you want to signal others that the post was useful or relevant to you, you may like it by clicking on the **like** button, which is denoted with the thumb up and outlined in green. Otherwise, if you do not like the post and wish to express your feeling about it, you may dislike it by clicking the **dislike** button, represented with the thumb down and outlined in red. You may change your opinion any time and remove your like or dislike by clicking the same button again.



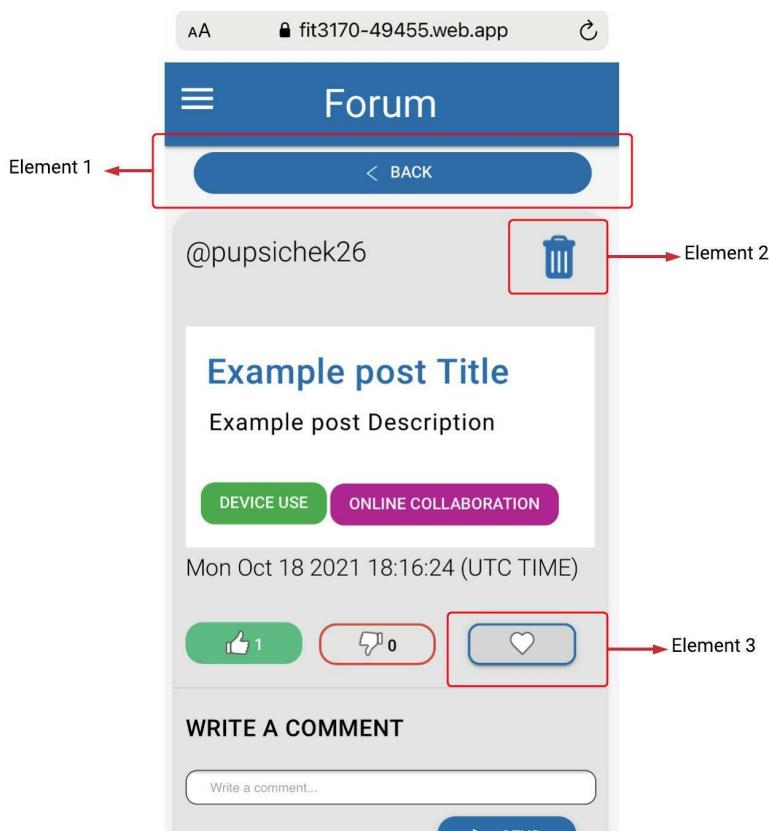
- If no action was performed by you on the post, buttons are in state 1.

- If you liked the post, buttons are in state 2.
- If you disliked the post, buttons are in state 3.

#### 2.9.4.4 More button (Element 7)

In order to see more detailed information about the post, such as its comments, you should proceed to the Detailed Post Information page by clicking the **More** button. Moreover, the Detailed Post Information page provides you an opportunity to add the post to favorites (section 2.9.5.3) or delete a post (section 2.9.5.2), if you are its creator.

### 2.9.5 Detailed Post Information



All of the features described in 2.9.4 remain the same. However, there are several additional features to be found, which are described below.

#### 2.9.5.1 Back button (Element 1)

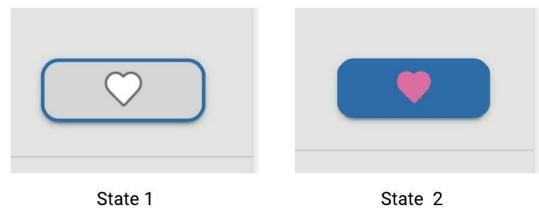
If you wish to leave the Detailed Post information page, you can click the **Back** button, which will redirect you to the forum landing page.

#### 2.9.5.2 Delete post button (Element 2)

The delete button is available only on those posts that you have created yourself since you can not delete posts created by other users. If you wish to delete the post, you should click on the delete button, which will immediately delete your post and redirect you back to the forum page. There is no way to reverse this action.

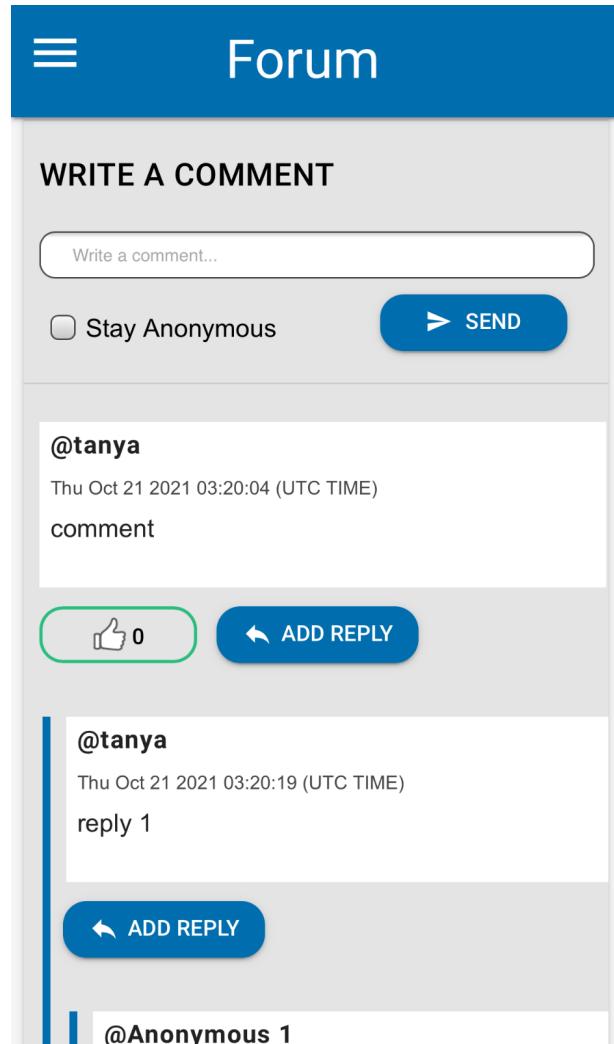
### 2.9.5.3 Add to favorites button (Element 3)

As it was mentioned in 2.9.1.2, you have a list of posts that you have added to your favourites. If you wish to add the post you are looking at, to your favourites, click the **Favourites** button, represented with the heart.



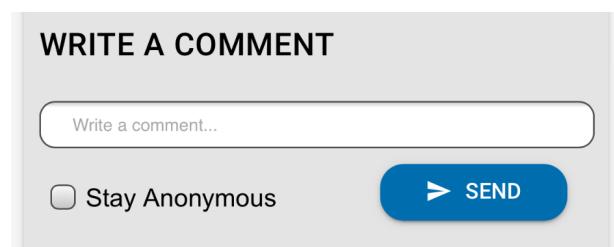
Once the post is added, you will see a button switch from state 1 to state 2. If you leave the Detailed Post Information page and open it again, the **Favourites** button will remain in state 2, denoting that the post is still in your favourites list. In order to remove the post from your favourites, click the **Favourites** button again. Once the post is removed from favourites, the button returns back to state 1.

#### 2.9.5.4 Comment section



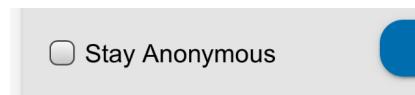
In the comments section you can see all the comments that you and other users left for that particular post.

#### 2.9.5.5 Write a comment



You may write a new comment yourself by typing it in the input field. You can choose whether you want other users to see your username on the comment (section 2.9.5.6). Upon the completion, recheck whether your comment is correct, and click the **Send** button to upload it to the system. You may see it appear as the top most comment. After the comment is uploaded, you cannot delete it.

### 2.9.5.6 Stay anonymous



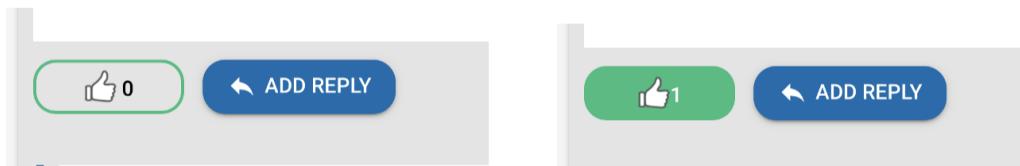
**Stay anonymous** check box may be found for both comments and replies. It allows you to choose whether you want other users to see your username on the comment/reply or not. While making a comment/reply pick:

- If you do not want other users to see your username on the comment/reply, tick the **stay anonymous** checkbox
- If you want, leave the **stay anonymous** checkbox empty as it is.

If you have chosen to tick the stay anonymous checkbox, the comment will be uploaded with "Anonymous" instead of your username.

### 2.9.5.7 Likes on comments

If you want to signal others that the comment was useful or relevant to you, you may like the comment by clicking on the like button.



State 1

State 2

When you like the comment, the button goes from state 1 to state 2, showing that the comment was liked and it will remain at state 2 unless you decide to remove your like. If you want to remove your like from the comment, click on the button again. Once the like is removed, the button returns to the state 1.

### 2.9.5.8 Reply section

The screenshot shows a mobile browser interface for a forum. At the top, there's a header bar with icons for font size, lock, and refresh. Below it is a blue navigation bar with a menu icon and the word "Forum". The main content area displays a comment from "@tanya" dated Thu Oct 21 2021 03:20:04 (UTC TIME) with the text "comment". Below this, there are two replies: one from "@tanya" dated Thu Oct 21 2021 03:20:19 (UTC TIME) with the text "reply 1", and another from "@Anonymous 1" dated Thu Oct 21 2021 03:20:33 (UTC TIME) with the text "@tanya anonymous reply". Each reply has its own "ADD REPLY" button.

Each of the comments has its own hierarchy of replies. All the replies to the comments are placed below the comment and are highlighted with one line, sorted from the oldest to newest.

Each reply has its own set of replies to it as well. All the replies to one particular reply may be found below it and are highlighted with two lines. The hierarchy ends here and all the next replies will stay within this set.

### 2.9.5.9 Add reply

The screenshot shows a "ADD REPLY" form. It has a text input field containing "@tanya", a checkbox labeled "Stay Anonymous", and a "SEND" button. Below the form, a reply from "@Anonymous 1" is shown, dated Thu Oct 21 2021 03:20:33 (UTC TIME), with the text "@tanya anonymous reply". This reply is highlighted with two horizontal lines. A "ADD REPLY" button is located at the bottom of the reply area.

If you wish to reply to a comment/reply of another user, click an **add reply** button. Upon clicking the button the input field pops up.

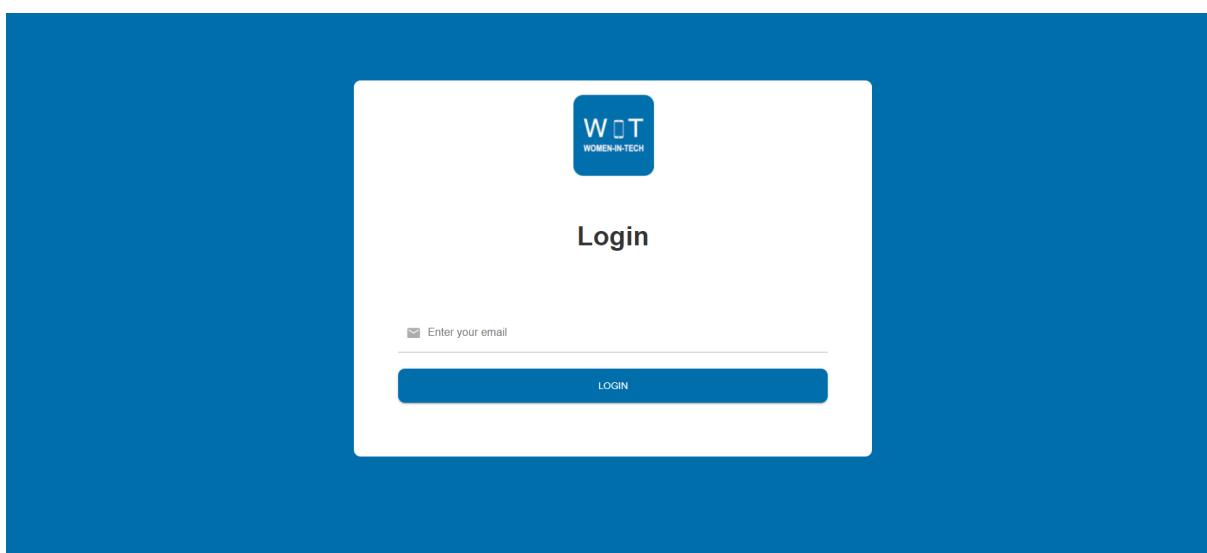
You may write a reply by typing it in the input field. You can choose whether you want other users to see your username on the reply (section 2.9.5.6).

Upon the completion, recheck whether your reply is correct, and click the **Send** button to upload it to the system.

You may see it appear as the top most reply. After the reply is uploaded, you cannot delete it.

## 3.Program Administrator Workspace

### 3.1. Logging into the administrator account



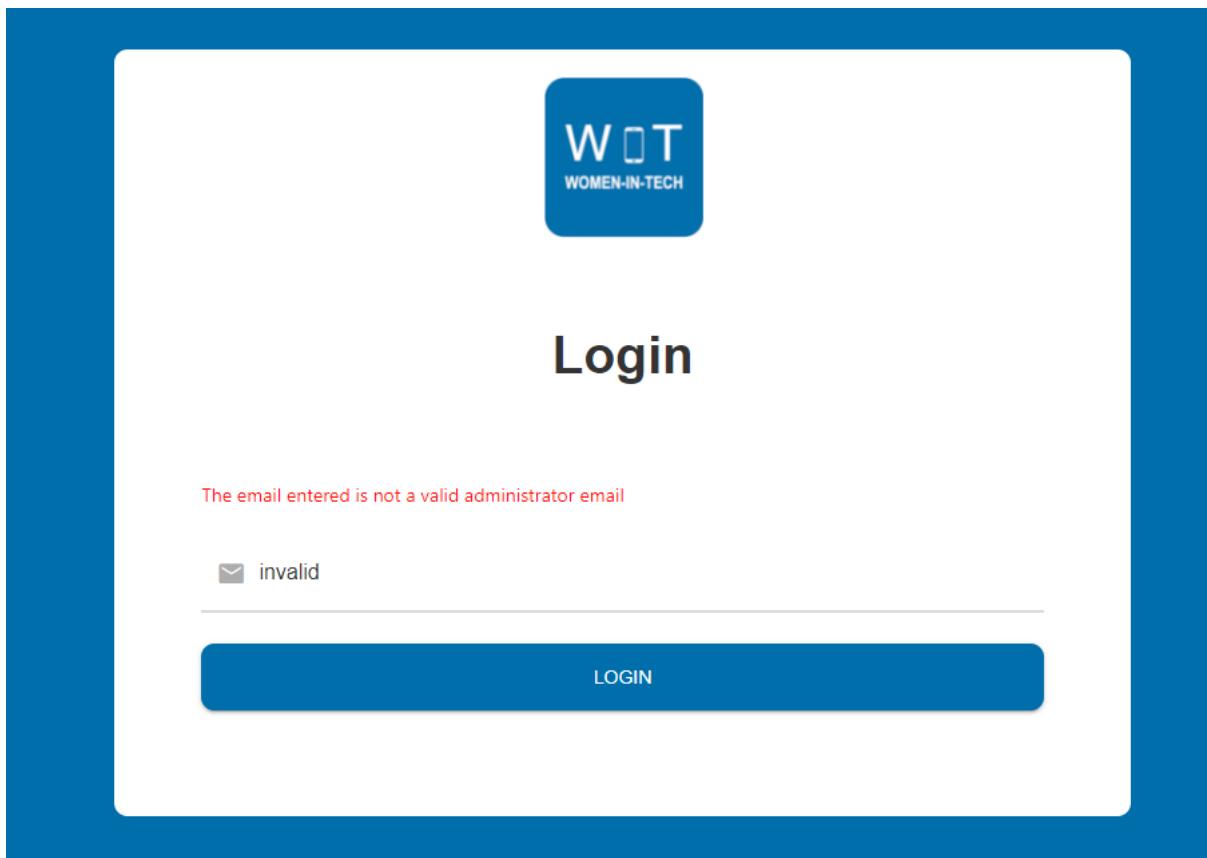
To access the administrator login screen, append “/dashboard/login.html” to the main domain of the application. The final url should look like this:

<https://fit3170-49455.web.app/dashboard/login.html>

This screen prompts you to input the provided to you email address in order to be able to access the administrator's dashboard.

Upon inputting an email address into the input field, click “**LOGIN**”. If the email address inputted is a valid administrator email, the system will log you into the administrator's dashboard (section 3.2). Otherwise, an error will be displayed, and you may have to recheck the inputted email, and make the appropriate corrections before trying to log in again.

An example of the error:



## 3.2. Administrator dashboard main page

The screenshot shows the "Admin Dashboard" main page. At the top, there is a navigation bar with three tabs: "CHATBOT" (which is highlighted in blue), "RECOMMENDER", and "FORUM". Below the navigation bar, there is a large orange box titled "Questions &amp; Responses". Inside this box, there is a small profile picture of a woman, a brief description: "Get responses by questions from users, download data as a CSV file", and a "VIEW MORE" button at the bottom. To the right of the orange box, there is a light gray area with some text and icons that are partially visible.

Main page is the first screen that you see after logging into the dashboard. You are presented with the screen that has the navigation bar and three tabs on it: **Chatbot**, **Recommender** and **Forum**. You may switch between the tabs by clicking on one of them depending on what subsection you want to get the information about.

## 3.3. Chat Bot

### 3.5.1 Responses

The screenshot shows a user interface for managing survey responses. On the left, there is a vertical list of questions with their descriptions:

- Question 1.1**  
What is your age in years?
- Question 1.2**  
What is your gender?
- Question 1.3**  
What is your ethnic group?
- Question 1.4**  
Where do you currently live?
- Question 1.5**  
What is your average net household income per month?
- Question 1.6**  
What is your completed highest education level?
- Question 1.7**  
What is your marital status?
- Question 1.8**  
How many children have you raised?
- Question 1.9**  
How many children do you talk or correspond with weekly?
- Question 1.10**

On the right, the details for **Question 1.1** are displayed. The title "Question 1.1 Responses" is at the top, followed by a text input field containing the value "50".

When visiting the chatbot admin dashboard, the admin will be shown a list of questions in the list on the left. Each item contains the question number and the question text. Each question can be clicked to show responses from all users for the selected question in the list on the right.

The screenshot shows a user interface for managing survey responses. On the left, the title "Question 1.12 Subquestions" is displayed, followed by the question text "What is your independent living status?". Below this, four subquestions are listed:

- Question 1.12a**  
living with someone at home?
- Question 1.12b**  
living alone at home?
- Question 1.12c**  
living with someone at aged care setting?
- Question 1.12d**  
living alone at aged care setting?

A "Back" button is located at the bottom right of the screen.

Clicking on a question that has subquestions causes the list on the left to list out the sub-questions present for that question. The sub-questions can be pressed to view responses for each of them. The back button can be pressed to return to the list of questions.

English	Chinese
Language	
English	您的年龄是几岁?
Chinese	您的性别是?
Malay	您的种族是?
Thai	您现在住在哪里?
<b>Question 1.3</b> What is your ethnic group?	<b>Question 1.4</b> 您每月的平均家庭净收入是多少?
<b>Question 1.5</b> What is your average net household income per month?	<b>Question 1.6</b> 您完成的最高教育程度是?
<b>Question 1.6</b> What is your completed highest education level?	<b>Question 1.7</b> 您的婚姻状况为?
<b>Question 1.7</b> What is your marital status?	<b>Question 1.8</b> 您养育了几名孩子?
<b>Question 1.8</b> How many children have you raised?	<b>Question 1.9</b> 您每周与几个孩子交谈或通信?
<b>Question 1.9</b> How many children do you talk or correspond with weekly?	<b>Question 1.10</b>
<b>Question 1.10</b>	

Questions and responses are filtered by the display language chosen by the user when answering the survey questions. By default, the selected language is English which shows questions and responses in English. To view questions and responses from users that use a different language, the dropdown box above the questions list can be used to select the display language.

### 3.5.2 CSV file download

An option is given to the administrator to download response information stored in firebase. Do note that the file may take a while to finish loading and downloading.

Question Number	Question	Response	Options	User	Language
1.1	What is your age in years?	50		+6738319928	English
1.2	What is your gender?	1	[0] Male [1] Female	+6738319928	English
1.3	What is your ethnic group?	0	[0] Malay [1] Chinese [2] Indian [3] Thai [4] Others	+6738319928	English
1.4	Where do you currently live?	0	[0] Urban area [1] Rural area	+6738319928	English
1.5	What is your average net household income per month?	0	[0] No income [1] Less than MYR2500 [2] MYR2501-3169 [3] MYR3170-3969 [4] MYR3970-4849	+6738319928	English
1.6	What is your completed highest education level?	1	[0] No formal education [1] Primary school [2] Secondary/ high school [3] Vocational/ techni	+6738319928	English
1.7	What is your marital status?	1	[0] Single [1] Married [2] Divorced [3] Widowed [4] Other relationship	+6738319928	English
1.8	How many children have you raised?	1		+6738319928	English
1.9	How many children do you talk or correspond with weekly?	1		+6738319928	English
1.10	How many other relatives do you feel close to?	1		+6738319928	English
1.11	How many close friends do you have?	1		+6738319928	English

The csv file is in the format of (question number, question, response, options, user, language). Where language is the display language that the user has chosen when they are answering the survey.

Options are left blank if there is no predefined list of options for the user to choose from. Do note that a user can only answer a given question once.

## 3.4. Recommender

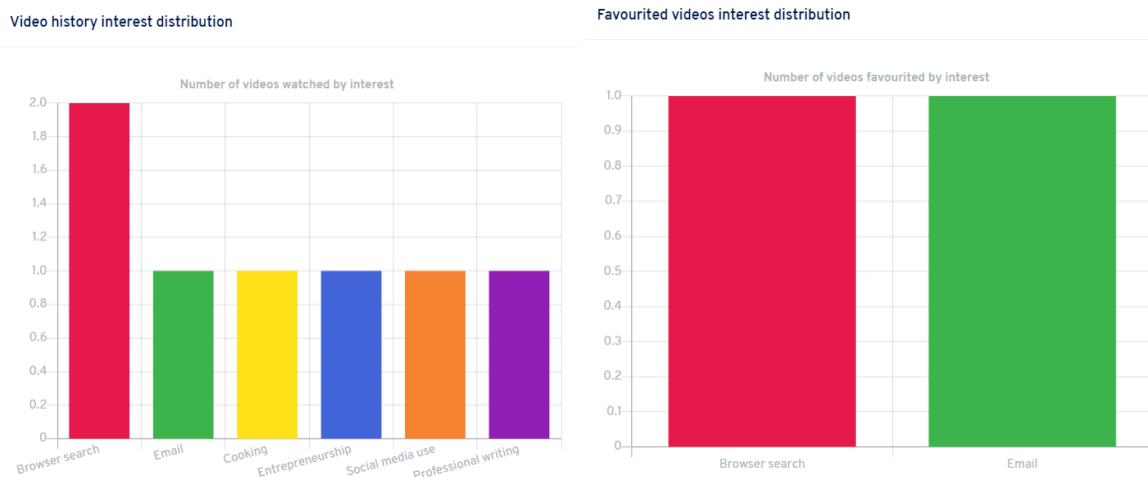
### 3.4.1 Users

#### 3.4.1.1 Selecting a user

List of users			
No.	Phone number	Username	
0	+12345678910	Tester	<button>View</button>
1	+60122139807	L	<button>View</button>
2	+60126765121	tjyaooo	<button>View</button>

Upon opening the page, the admin will be shown a table that contains a list of users that have already registered in the system in the format shown above. After the table finishes loading, the admin is able to inspect further information on a user desired by clicking on the “View” button as shown.

#### 3.4.1.2 Favorited/History interest distribution



The admin will then be shown two bar charts that contains the summarised information of the user's activity (in this case the interest related to their watch history and favoured videos).

Note that the bar charts will not be displayed if the user has not watched/favorited any videos.

### 3.4.1.3 Selection of video from watch history

List of videos watched					
No.	Video title	Video	Watchcount	Video tag	View analytics
0	How to Use Zoom for Seniors	<a href="#">Link</a>	0	Online collaboration	<a href="#">View</a>
1	How to Use Google Docs Properly - Tutorial for Beginners	<a href="#">Link</a>	0	Online collaboration	<a href="#">View</a>
2	 Microsoft Teams Tutorial in 10 min	<a href="#">Link</a>	0	Online collaboration	<a href="#">View</a>

Additionally, a new table will also be displayed to the admin that contains the list of videos that the user has watched and the admin will be able to view more detailed information by clicking on the “View” button once again.

**Note:** Watchcount will be displayed as 0 if the user has watched the video for less than 10 seconds thus their view count will not be recorded.

In the case where no videos have been watched before, the figure shown below will be displayed to the admin.

List of videos watched					
No data available					

The video analytics of the video chosen will then be displayed to the admin in the format shown in the figure below.

### 3.4.1.4 Viewing video analytics for selected video

Video Analytics of #10	
<b>Stopped Watching at</b>	6 minutes 54 seconds
<b>Video Duration</b>	7 minutes 17 seconds
<b>Video Watchtime</b>	2 minutes 36 seconds
<b>Video Percentage Watched</b>	95%
<b>Video Watch Status</b>	seek
<b>Video Visibility</b>	true

In the case where the user has simply not watched the video long enough ( less than 10 seconds) the video analytics will not be recorded and instead the figure shown below will be displayed (similar to the table that contains the video list above).

Video Analytics of #10	
No data available for selected video	

## 3.4.2 Skills

### 3.4.2.1 Selecting skills

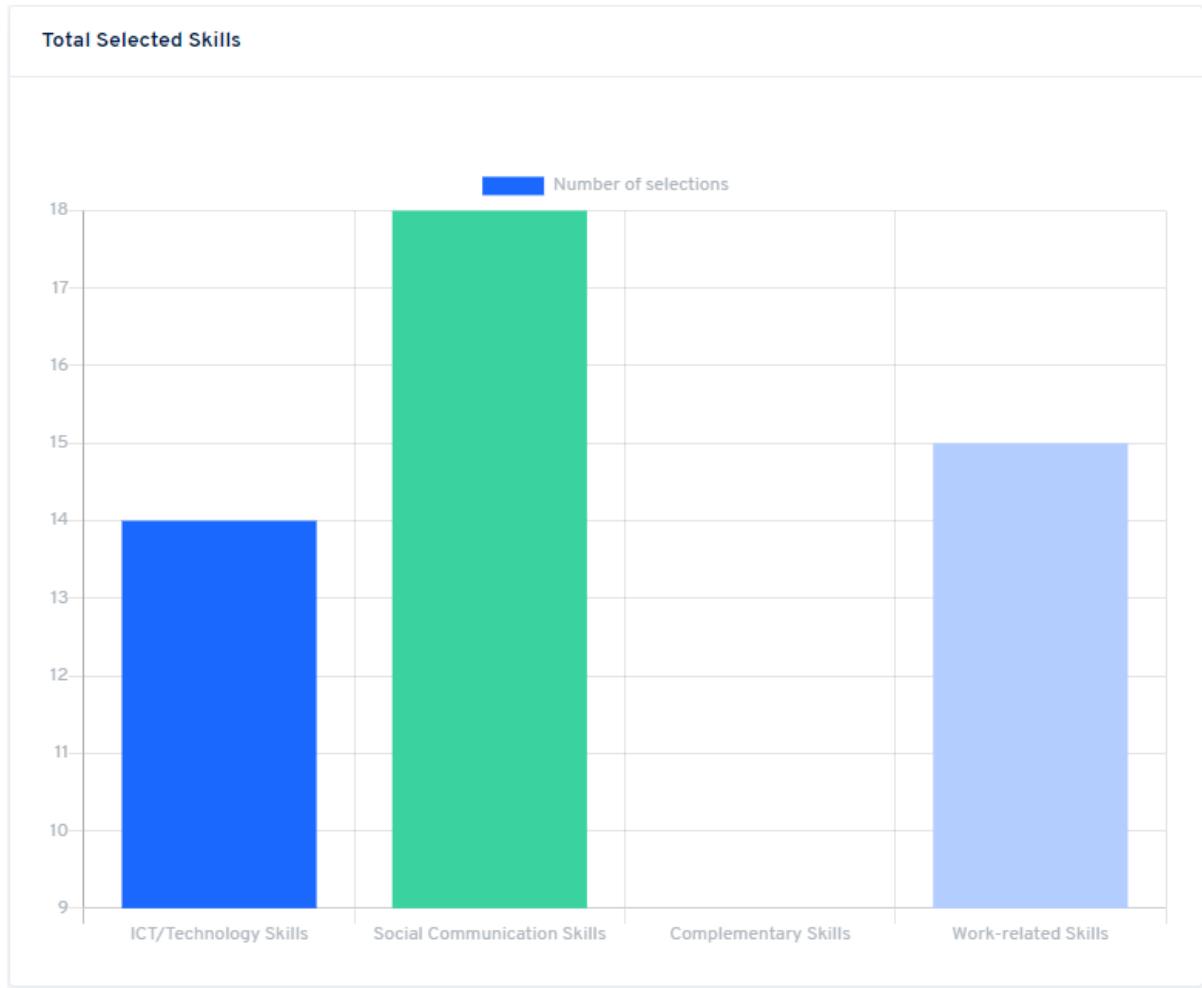
Search for a Skill

Social Communication Skills ▾

## ICT/Technology Skills

A skillset must first be selected from the list to view specific data on the skill that it consists of, and then the “Search” button must be clicked.

### 3.4.2.2 Total selected skills



The total selected skills and their distribution across the various groups of skills can be seen on the primary bar chart.

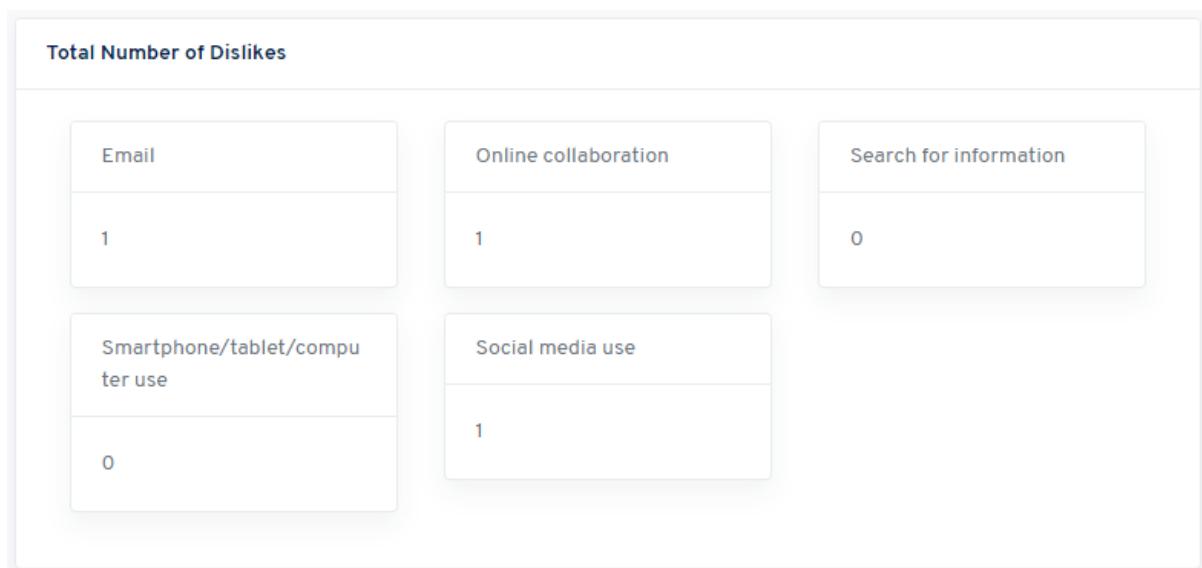
### 3.4.2.3 Number of selections for each sub-interest



The number of selections made for each sub-interest from the selected skill collection in the previous section will be displayed in a bar graph.

#### 3.4.2.4 Number of selections for each sub-interest

Total Number of Likes				
Email	0	Online collaboration	0	Search for information
Smartphone/tablet/computer use	0	Social media use	0	



In addition to the display of the number of selections for each skill, the number of likes and dislikes each skill received will also be displayed below the bar chart.

### 3.4.3 Favourites

#### 3.4.3.1 Selecting a Skill

Search for a Skill

▼
Search

ICT/Technology Skills

Social Communication Skills

Complementary Skills

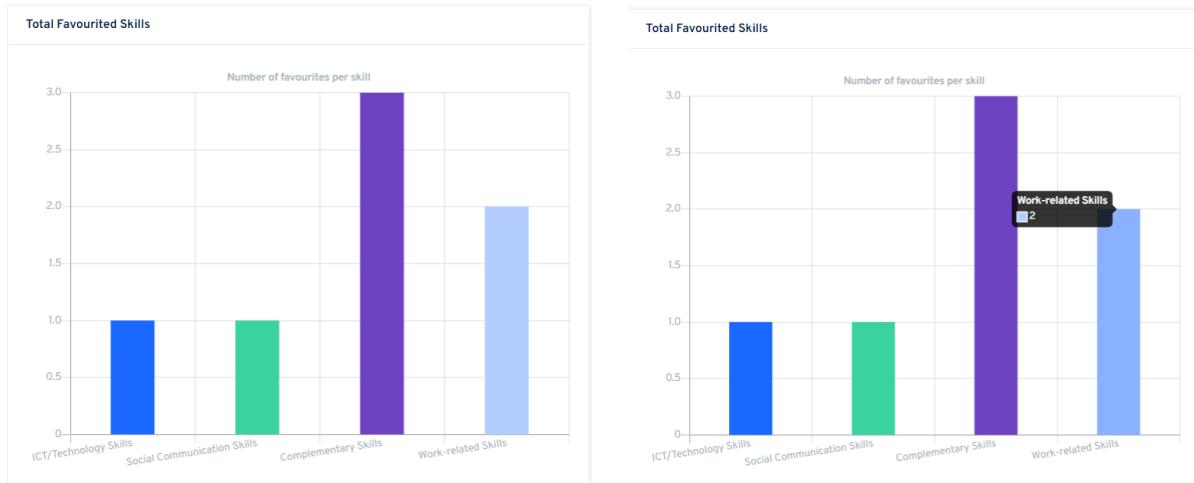
Work-related Skills

**Skill Selected**

**ICT/Technology Skills**

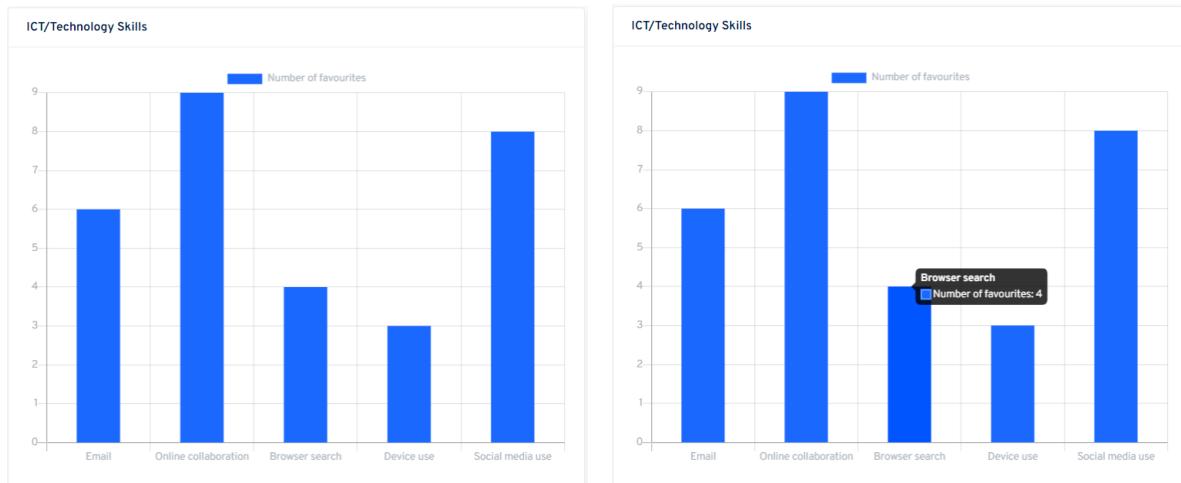
In order to select a skill to read its analytics, click on the down arrow to view the drop down list. Select one of the skills and click on the “Search” button. The selected skill will be displayed in the “Skill Selected” section.

### 3.4.3.2 Total Number of Favourites per Skill



Upon opening the favourites analytics page, it will display a bar chart representing the number of favourites per skill. Each of the bars is filled with different colours to represent different skills. You can read the exact number of favourites in the popup by hovering over the bar chart.

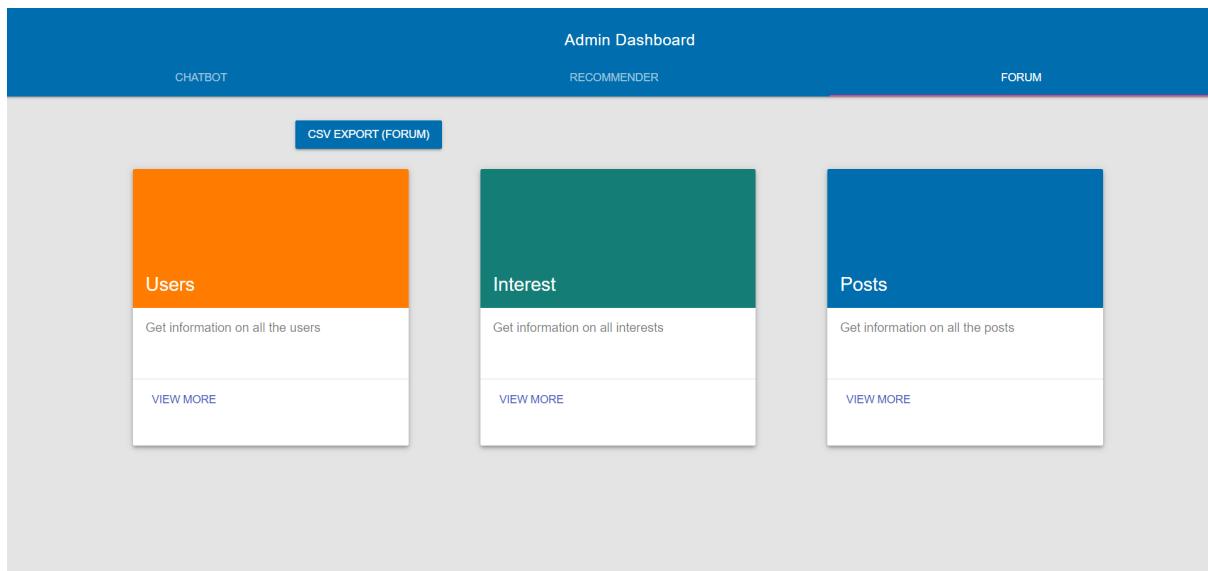
### 3.4.3.3 Number of Favourites per Interest of Selected Skill



Upon selecting the skill, this bar chart is generated representing the number of favourites obtained for each of the interests. You can hover over the bar to read the exact number of favourites in the popup.

## 3.5. Forum

The forum interface consists of three subsections: **Users**, **Interest** and **Posts**. In order to proceed to any of the subsections, click the **View More** button on one of the boxes, which will redirect you to the corresponding page.



### 3.5.1 Users

This screenshot shows the 'Users' section of the admin interface. On the left, there's a sidebar with the WIT logo and a 'Navigation' menu item. The main content area has several sections: a search bar labeled 'Search for a User' with a placeholder 'Search User Phone Number (e.g. +60123456789)' and a 'Search' button; a box displaying 'Total Number of Users' with the value '4'; a box below it stating 'No User Selected'; a box for 'Total Number of Interactions' with 'No User Selected'; a box for 'Total Interactions With Interests' with 'No User Selected'; and a final box for 'History of User Actions' with a dropdown menu currently set to 'Created Posts'.

On the users page, you can see the number of users in the system and search for all the information about one specific user (section 3.5.1.1).

### 3.5.1.1 Search for User

The screenshot shows a search interface titled "Search for a User". A search bar contains the input "+60". Below the search bar is a list of autocomplete suggestions: "+60122139807" (highlighted in yellow), "+60126765121", and "+60176849059". To the right of the search bar is a blue "Search" button. Below the search bar, the text "Information about @tanya" is displayed.

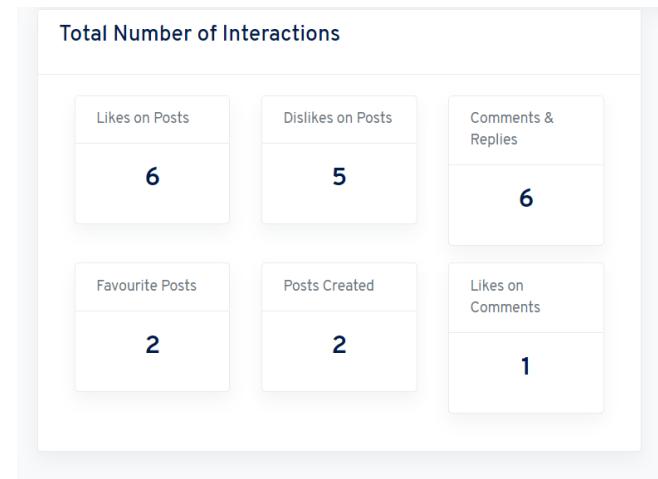
In order to search for all the data about one specific user, you should input their phone number starting with +. Once you input the first digits, you will be provided with autocomplete options that you may choose from. After you complete inputting the number, click the **Search** button, which will search for the information about this user and update the rest of the page accordingly.

### 3.5.1.2 Username and phone number

The screenshot shows a search result for the user "@tanya". The text "Information about @tanya, +60176849059" is displayed in a box.

This part displays the username and the phone number of the user you are searching for. It allows you to recheck whether your search query is correct, and if not, search for another phone number (section 3.5.1.1)

### 3.5.1.3 Total Number of Interactions



This part represents the total number of interactions that the user has made in the forum subsection of the application. It represents the total number of likes, dislikes, comments and

replies the user has left on all the posts, number of posts that the user has created, number of posts that the user has added to their favourites and the total number of likes they left on comments.

#### 3.5.1.4 Total Interactions with Interests



This section represents all the interests that the user has interacted with and shows the number of interactions per each interest. If you want to see the exact number of interactions with the interest, hover over the bar, which will show the popup.

#### 3.5.1.5 History of User Actions

History of User Actions		
<input type="button" value="Liked Posts"/> <input type="button" value="Created Posts"/> <input checked="" type="button" value="Liked Posts"/> <input type="button" value="Disliked Posts"/> <input type="button" value="Comments"/> <input type="button" value="Favourite Posts"/> <input type="button" value="Liked Comments"/> <input type="button" value="Replies"/>	Post Title	Post link
-MjF1R4B4tk5McY5pbAa	How to Make a Stop Motion Video From Your Phone	<input type="button" value="View More"/>
-MjFluTYFh3PHwDDiv1w	Health care and Well being; how to care for the elderly	<input type="button" value="View More"/>
-MjF23q_D72pEyPtcLu1	6 Basic Knife Skills You Should Master In Your 20s   CNBC Make It + Tasty	<input type="button" value="View More"/>
-MjjZQuQIYhuLWP6D0Yy	What is Critical Thinking?	<input type="button" value="View More"/>
	How to be an Entrepreneur	<input type="button" value="View More"/>
	Babysitter Boss S2E5: How to Handle Siblings Who are Always Fighting	<input type="button" value="View More"/>

This section displays the history of actions made by the user. From the dropdown menu above the table, you can choose what kind of action you would like to see the history about. In order to view more details on any of the posts from the table, click the view more button on the corresponding row, which will redirect you to the posts page (section 3.5.3)

### 3.5.2 Interests

On the interests page, you can see the graph representing the total number of interactions: likes, dislikes and posts posted for each interest and the table displaying a history of posts with each interest.

#### 3.5.2.1 Total interactions with each interest



This graph shows the total number of likes, dislikes and posts posted for every interest in the system. In order to see the number of each interaction for a single interest hover over the bars of that interest, which will display a pop up with all the details.

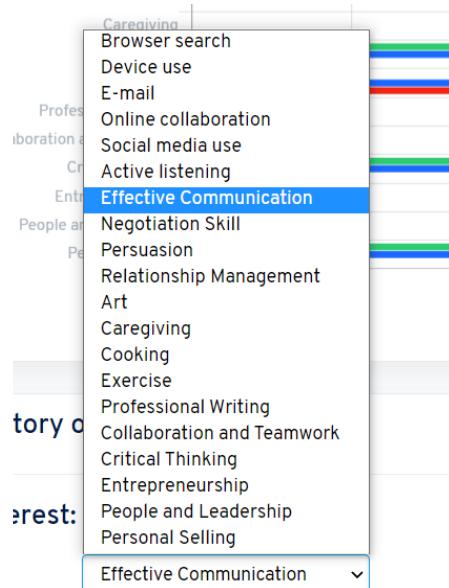
#### 3.5.2.1 History of posts

History of posts:

interest:

Effective Communication ▾

Post Id	Post Title	No. of likes	No. of dislikes	No. of comments	Post link
-MmWhvSq03f4PA61zAsh	Post 4	2	0	0	<a href="#">View More</a>
-MmWhd1UB-nS3mxRAALw	Post 1	2	1	0	<a href="#">View More</a>



In order to use this table, you have to pick the interest you are interested in from the dropdown list and click on it. The table will be updated accordingly showing all the posts that have the chosen interest and the number of likes, dislikes and comments on each of those posts. Moreover, if you want to see this post in more detail, you can click the **View More** button, which will redirect you to the Posts page (section 3.5.3).

### 3.5.3 Posts

The posts section in the admin dashboard is aimed at providing the admin users of the system with all the relevant information about existing posts in the forum submodule. The page is divided into 4 separate sections. Upon arriving on the page, 2 of the bottom sections will be empty, and displaying “No Post Selected”. The top left card displays the total number of posts from the recommender submodule (left) and the total number of posts made by users (right). The top right section allows you to search for a post using its id. The search field provides you with an autocomplete functionality in the case that you do not remember the entire post id:

You may choose to manually type in the post id or select from the drop down list in the autocomplete, then click “**Search**”. You should now notice that the bottom two sections are no longer displaying “No Post Selected”, and instead are displaying some data:

**Total Number of Posts:**

Posted to Recommended	Posted by All Users
20	1

**Search via post ID**

**Summary of -MmWlmOwW-Qkrp9CPdHV post**

POST TITLE	Interesting video!
DESCRIPTION	Test test test 测试测试测试
VIDEO LINK	No video attached
CREATOR or RECOMMENDED	Charlotte
APPLIED INTERESTS	Browser search

[Go to Post](#)

**Overall statistics of -MmWlmOwW-Qkrp9CPdHV post**

Category	Value
Likes	2.0
Dislikes	0.0
Comments & Replies	2.0
User's Favoured	2.0

**Note: The post id used in this image is an example and may or may not exist in the application.**

From here on, when mentioning sections on this page, the above image is to be used as a reference. The data displayed in the bottom left section includes all the basic details about the particular post that you have found, including:

- Title: The post title
- Description: Description of the post, or otherwise may be known as the post content.
- Video link: “No video attached” if none, and the youtube video link if there is.
- Creator or recommended: The username of the post’s creator. If the post was created by the recommender submodule, the creator is “Recommender”

This section also includes the “Go to Post” button. By clicking this button, the application will redirect you to the post where you can directly see the post as other users would see it. However, as the admin, you are not allowed to interact with the post. Therefore, all the buttons and input fields on the page are disabled:

# Forum

@Charlotte

## Interesting video!

Test test test 测试测试测试

BROWSER SEARCH

Thu Oct 21 2021 07:35:55 (UTC TIME)



0



0



ADD FAVOURITE

### WRITE A COMMENT

Write a comment...

Stay Anonymous

► SEND

@nonye

Fri Oct 22 2021 09:51:41 (UTC TIME)

like



@Anonymous

Thu Oct 21 2021 07:37:19 (UTC TIME)

Why do you think it is interesting?

Lastly, the bottom right section of the page displays the user's interactions with the particular post in a graphical format. The graph includes:

- Number of likes
- Number of dislikes
- Number of users who favorited the post
- Number of comments on the post