

# Navigation App

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COMP – 350 – AB1

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## Introduction

This system design document has been created to outline the proposed system design for a navigation map of University of Fraser Valley (UFV) campuses. The purpose of the document is to present the design approach for the graphical user interface (GUI) of the application prototype. The application is a prototype so it doesn't contain all the UFV campus maps. There will be a lot of changes to the prototype before we release this application for people to use. The prototype has been created by using Axure and the best way to access the application's full potential is through Login > Home > Abbotsford Campus > Building A > Building D > Chilliwack Campus > Settings.

Axure Public Link: <https://87t6hn.axshare.com>

The prototype has notes that can guide anyone for using the application. But just in case, the credentials to login to the application prototype are,

Email ID: [test@domain.com](mailto:test@domain.com)

Password: **SAHIB**

This document is being created by keeping in mind that we need to answer questions such as

- Who (target audience)
- Where (places that the App can be used)
- Why (Why are you creating it)
- What (what is your aim)
- When is the availability.

## Purpose

The target audience of this document and the application are UFV's current and potential students but not just them, it is UFV's staff, faculty and guest as well. The purpose of the

document is to provide project participants with a clear view of the system design Interface that will be followed throughout the development of the respective application. The document will need to be revised later for future changes to be implemented during development.

Before creating the prototype, there was a one to one personal interview conducted with some of the UFV students and here are some of the student names and their information who volunteered in this pre-prototype interview.

<b>Name</b>	<b>Student ID</b>	<b>Diploma/Degree</b>
<b>Armaan Rehsi</b>	300158789	BBA
<b>Taran Gill</b>	300156825	BBA
<b>Megha Saxena</b>	300147365	Bachelor of Computer Information System
<b>Eric Son</b>	200123024	Bachelor of Computer Information System
<b>Bowen Xue</b>	300139793	Bachelor of Computer Information System
<b>Xiaoxia Li</b>	300154882	Bachelor of Computer Information System

To summarize what we gathered from the interviews, we were told that the campuses that really need navigation maps are Abbotsford Campus and Chilliwack Campus as they are the biggest and have most classes, which is why our focus in this prototype is going to be at those campus navigation maps.

The aim of this application is simple, “Provide a better experience to people at UFV”. This navigation map application will make it easier for everyone to find things, classes, offices they haven’t seen or don’t remember where it is, thus making their experience at UFV great.

## GUI Overview

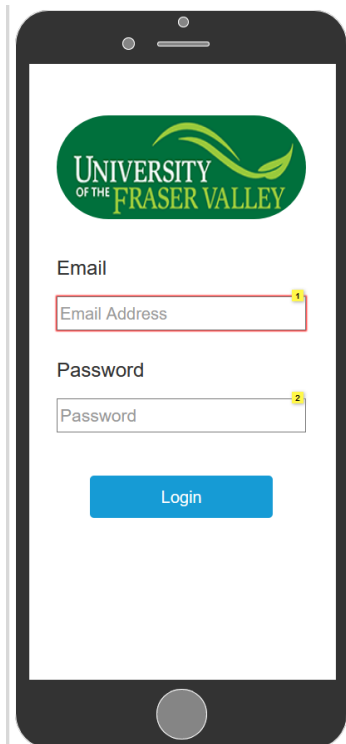
This section introduces the UFV Navigation application's GUI which will take the form of a lightweight mobile application, where all functionalities are visually and logically grouped according to the types of entities they are associated with, i.e. management of the resources (user, building name, room, etc.). Special consideration has been given to the usability of the application, with the key goal being to have an efficient interface design, with minimal user action effort required.

To make it easier to navigate, we have provided the user with a drop-down menu via the building floor maps to choose the floor they want to see; the user can pick only one choice at a time. But not just that, even if they don't want to use the dropdown menu, we have included arrows for the user to use to slide through to choose the floor maps of a building. Since the application prototype is for Android / iOS we have chosen to go with a Hamburger navigation menu, much like the Blackboard app that UFV students use for academic purposes. Where applicable, the contents of each button are further broken down into parts, according to a common logical and practical grouping. The design foresees the development of the application using Axure RP9 software.

## Design Constraints

The application prototype consists of a common header on every page that further consists of the UFV logo and the Hamburger menu for easy navigation throughout the application.

## Login Page

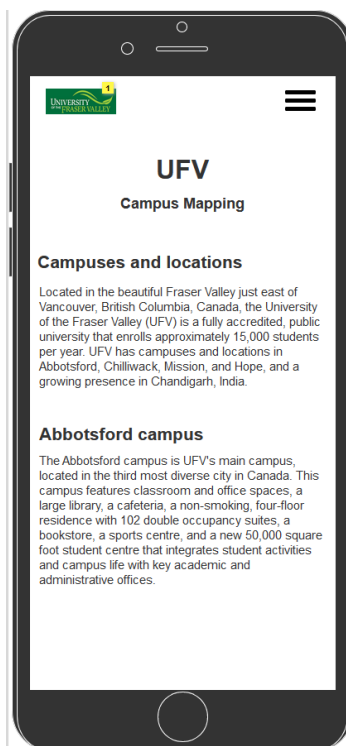


On this page, we have provided the UFV logo, some fields a user can enter their credentials into. Since this is a prototype and is not going to be released to the user yet we have fixed the email address and password field credentials to [test@domain.com](mailto:test@domain.com) and **SAHIB** respectively.

If these credentials are filled wrong an error shows up below the Login button, like this

**Invalid email and/or password**

## Home Page



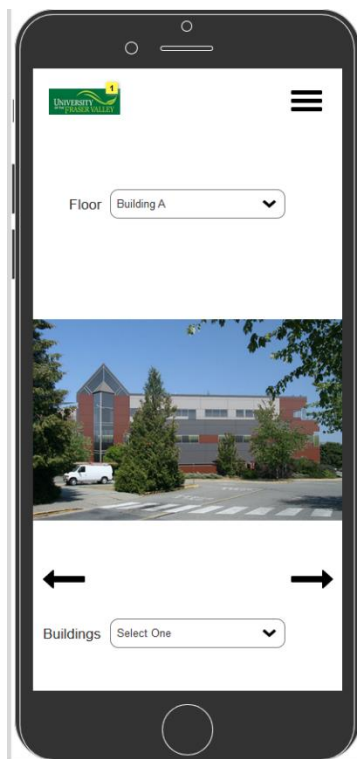
On this page, we have provide some information regarding UFV and its campuses, but since this isn't the main attraction/focus of the application prototype we think for now this much information is good enough. If a user clicks on the Hamburger menu then the menu will cover the entire screen of the mobile, for easy navigation and if they user clicks on the UFV logo then it will take user straight to <https://www.ufv.ca/>

## Abbotsford Campus



On this page, by clicking on the arrows you can slide to view the information regarding the Abbotsford Campus Map. The buildings dropdown menu will show two options Building A and Building D, a user can only choose one option at a time. When the user chooses an option a blue background is given to the option chosen. The chosen option will take the user to a separate page.

Lets assume the user chooses Building A, page for Building A shows up. The user can look at the floor maps by either pressing one of the arrows or choosing from the Floor dropdown menu which has basically the same functionalities and effects as the other dropdown menu. The buildings dropdown menu on this page only has the Building D option which has the same outline as this page for making it more user friendly.

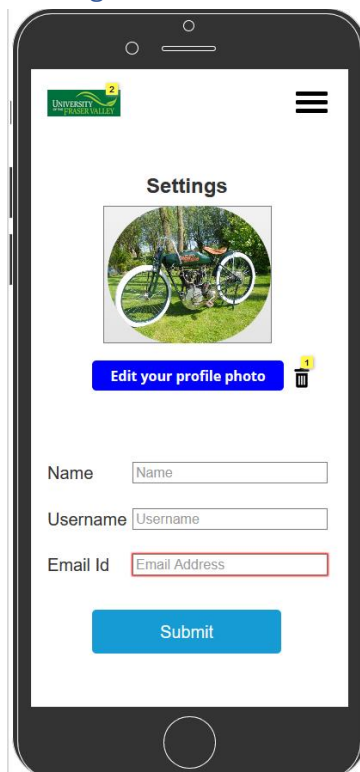


### Chilliwack Campus



It has basically the same functionalities and visual effects as the Abbotsford Campus page but does not have any buildings dropdown menu. For the product we will provide more detailed map for the campus.

### Settings



On this page, a user can upload and delete their profile photo, edit their name, username and email id. When a user tries to upload a photo a pop menu comes in this prototype, which basically indicates that user would have to give permission to the application for accessing the mobile gallery or camera to upload a profile photo. There will be more settings options in the finished application as just these options aren't enough.

## System Architecture

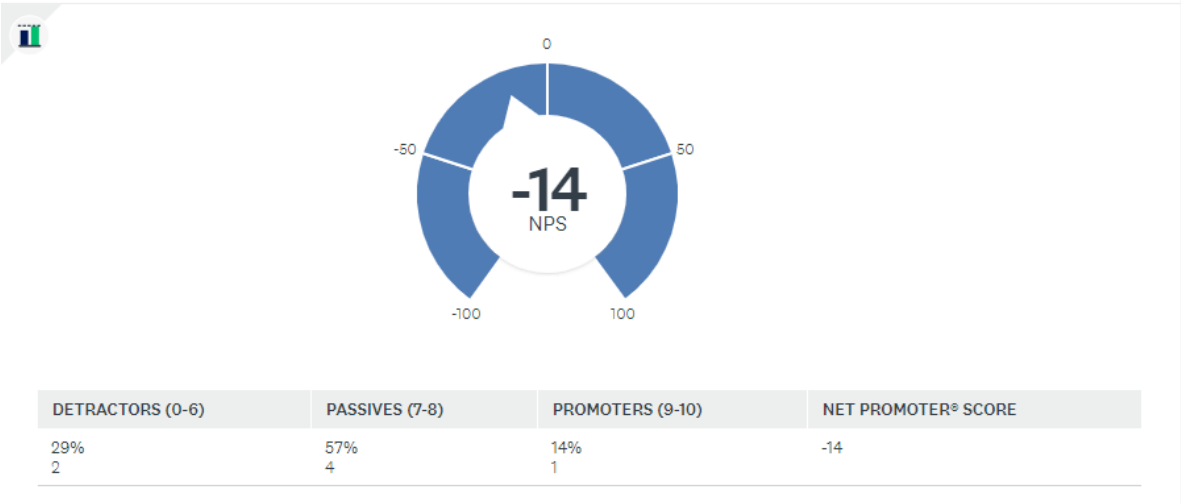
The drop down menu and the arrows are a part of this application prototype to navigate between buildings, floors, maps. This is because it was clear that these two options are more eye pleasing than rectangular buttons after talking to potential users and they generally offer a better user experience. It is also very easy using these keys, as these titles can be clarified and read easily. The overall effect on the user experience is very positive and better than other alternative types of the buttons. The application also includes images of campus maps. The maps are also provided with a rectangular frame to suit the rest of the document. Since there are a lot of map images and each one of them are wide and not very suitable for a mobile device, arrows are available to display the campus maps, instructions related to the campus maps and building floor maps as well. The arrows are easily visible to the user and are black colour so that they can be spotted easily. This form was chosen after considering the results of the pre-prototype survey, which said arrows are the most efficient part for sliding through images. The colour of the text boxes and dropdown menu's are decided according to the application's colour subject. The font is plain, easy to read and no fancy font is used, as it is not required by the design of the application. This was expressed in the answers of the student who thought that fancy fonts are often difficult to read in mobile frames and need greater attention that is not user-friendly. This application's colour scheme is the same as that of the Blackboard application that UFV students already use for academic purposes. This subject was chosen as important to the application, which would make them visually attractive and happy with the application as its main target audience is UFV students. This is a colourful experience, since it has different types of colour, which are not dull or professional. The majority of users are young people between 19 and 28 years old. This would make the colour scheme appealing for the user.



Survey Results

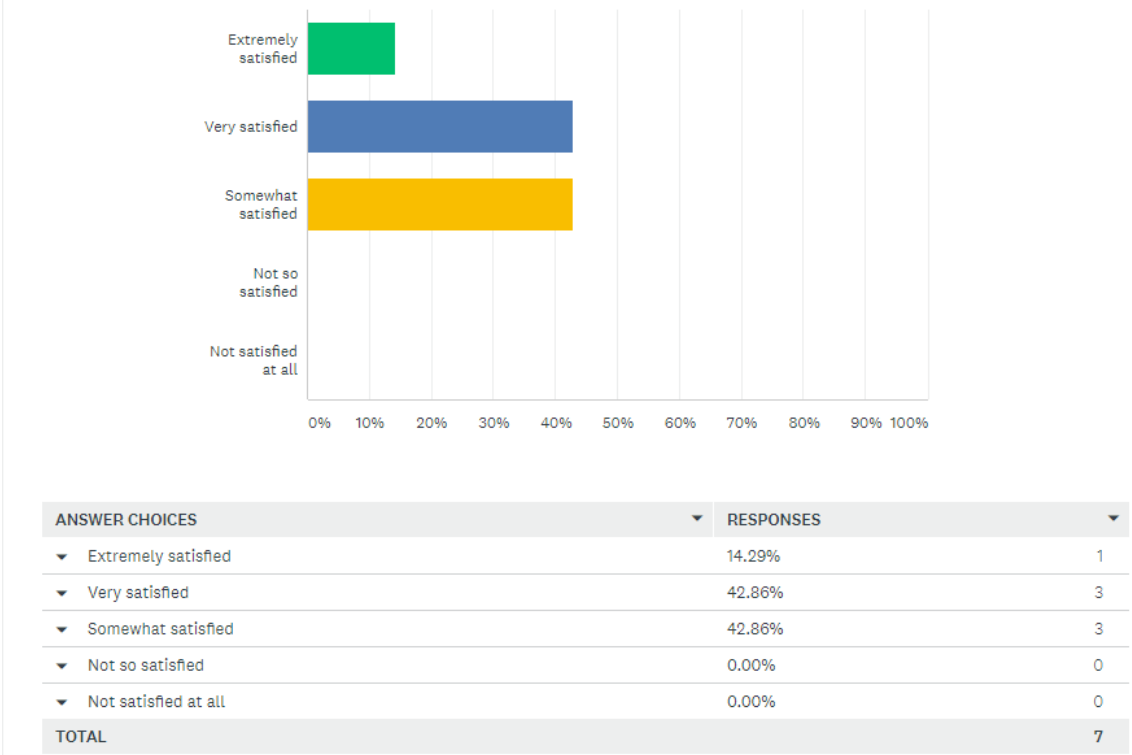
How likely is it that you would recommend this application to a friend or colleague?

Answered: 7    Skipped: 0



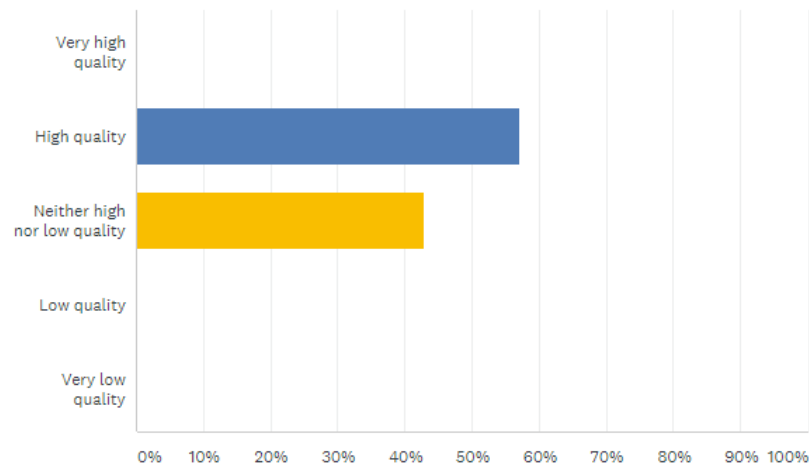
Overall, how satisfied are you with this UFV application?

Answered: 7    Skipped: 0



## How would you rate the quality of this application?

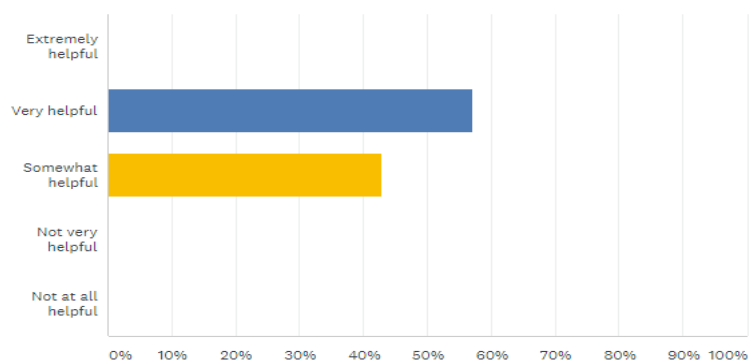
Answered: 7 Skipped: 0



ANSWER CHOICES	RESPONSES	
Very high quality	0.00%	0
High quality	57.14%	4
Neither high nor low quality	42.86%	3
Low quality	0.00%	0
Very low quality	0.00%	0
TOTAL		7


## How helpful was the content presented in the app, for guiding you through UFV Campuses?

Answered: 7 Skipped: 0



ANSWER CHOICES	RESPONSES	
Extremely helpful	0.00%	0
Very helpful	57.14%	4
Somewhat helpful	42.86%	3
Not very helpful	0.00%	0
Not at all helpful	0.00%	0
TOTAL		7

Q5



 Save as ▼

Do you have any other comments, questions, or concerns?

Answered: 4   Skipped: 3



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RESPONSES (4)   WORD CLOUD   TAGS (0)

 Sentiments: OFF 

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☐ Apply to selected ▼   Filter by tag ▼

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Showing 4 responses

☐ No  
4/23/2020 11:43 PM   [View respondent's answers](#)   [Add tags ▼](#)

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☐ I don't think the tool tips would immediately be obvious to some people. Maybe make them bigger and replace the numbers with !  
4/8/2020 12:54 PM   [View respondent's answers](#)   [Add tags ▼](#)

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☐ I really liked this prototype. I will definitely use it when its made especially since I have never been to the other campuses like Hope and Chilliwack  
4/7/2020 10:53 PM   [View respondent's answers](#)   [Add tags ▼](#)

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☐ I wanted to see other campuses as well  
4/7/2020 10:49 PM   [View respondent's answers](#)   [Add tags ▼](#)

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## Summary

The specification and purpose were set out in this document. We also addressed the construction of the prototype and system and the reasons for it in detail. The prototype was designed in line with the three design levels: visual, behavioural and reflecting. A pre-development and post-development survey are used to ensure that the software fulfils the design criteria and provides a user-friendly interface to determine what is most drawn to the target market. The original prototype is not complete and will be revised based on the results of the survey. There may also be additional features for handling new user requests. The new version is only designed to display the graphical user interface for the first time and get users.