Monash University

FIT5152 User Interface Design and Usability

Prototyping Assignment

Low-fidelity and high-fidelity prototyping for a mobile app

This assignment is **worth 30%** of the total mark for this unit.

This assignment is **a group assignment (groups of 2 students from the same tutorial)**.

The assignment involves low-fidelity and high-fidelity prototyping.

The prototyping assignment consists of a demo and a report:

- The demo of the prototype must be presented by both group members to your tutor in 10 minutes in your tutorial in Week 12.
- The assignment is due by Friday 11:55pm, Week 11, 18th of October.
- The zip file containing the report and all the prototype files should be submitted to Moodle by the deadline.

Aim: The objective of this assignment is to provide you with practical skills for user interface design and prototyping of a real world application by applying design guidelines, and gain a deep understanding of importance of both low-fidelity and high-fidelity prototyping.

You will start the design phase first by creating a paper-based ((low-fidelity) prototype for the mobile app described below.

You will then review and refine your design and create a digital (high-fidelity) prototype of a mobile app.

In the digital prototype, you must show the improvements made to the paper-based prototype and in the report, you need to explain your reasons for improvements. The reasons should be aimed to better meet the user needs and design guidelines.

A. Mobile Monash Friend Finder App

Using the mobile Monash Friend Finder app, the user (the student) first needs to subscribe and provide their personal and study related details. The app will then enable the student to search for friends based on matching preferences and common interests. They can add or delete friends. The app will also allow users to locate friends nearby on a map with matching profiles.

B. Paper-Based Prototype

You need to draw a sketch (a paper-based prototype) for two screens of the above-mentioned app including 1) the sign-up form, and 2) the screen for searching friends (a total of 2 sketches) using pen (or pencil) and paper following appropriate design guidelines. The screens are described in Section E.

You will include the screenshot of your two sketches in the report (at the beginning).

C. Digital Prototype

The high-fidelity interactive prototype of the mobile friend finder app will be created by using MockingBot prototyping tool. We will provide the instructions about the student account registration during the semester.

The prototype must be interactive. The interaction includes navigation between the screens, and the navigation within a screen through interacting with UI elements such as buttons and lists.

You do NOT need to store any data.

You do NOT need to include any processing or calculation.

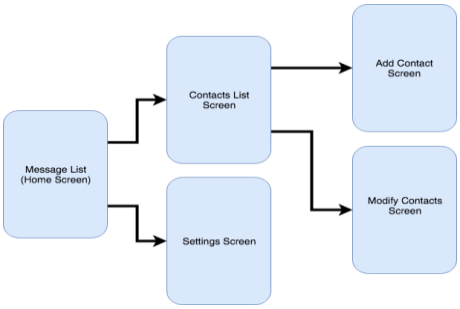
To enable interactions within a screen, you will use hard-coded and static contents (images or maps) according to the requirements of each screen to simulate the real interactions.

(**Note:** make sure you use images/pictures with no copyright restrictions, and for third party images provide source and reference in the report)

D. **A written report**

The report should include the following sections, in this order:

1. **Title page**
2. **Table of contents** (this means you must include page number)
3. **Paper-based prototype:** include the screenshots of your 2 sketches, one per page. Provide a title and a brief description for each sketch.
4. **Digital prototype:** you need to include at least one screenshot for each screen (screens are described in Section E).
    a. You need to provide the description and justification of **THREE design guidelines** followed **for each screen**. Each guideline should be discussed under a numbered subheading (e.g. 2.1 guideline X, 2.2 guideline Y, 2.3 guideline Z)
    b. For the sign-up form and the search screens, you have to provide at least **TWO changes per screen** you made to improve the paper-based prototype, and explain the reason for each change and improvement (each change discussed under a numbered subheading).
    c. Design guidelines can include any of the guidelines discussed during the semester such as Norman's design principles, guidelines for navigation, menus, forms, passwords, graphics, colour, icons, typography, grouping, accessibility, feedback and error messages, and help.
    d. You must **avoid repeating the same guideline** in the report.
5. **References –** In the section 4 of the report, you must **cite at least 4 related conference or journal papers**, and provide **their details in the Reference list** at the end of the report. The in-text citation and reference list should be according to the APA style.
    a. The papers should be from these publishers: ACM, IEEE, ScienceDirect, Springer, ProQuest, IOS Press, or Scopus.
    b. The paper selection should be judicious. This will be demonstrated by how close and related the paper is to the topic of your discussion.
6. **Appendix –** A diagram that shows the top level view of the app and the navigation flow between screens, similar to the figure below.



https://www.techotopia.com

E. Details of User Interface

This section describes the main requirements to develop the prototype's interface (by focusing on the main functionalities).

Based on these descriptions, you will decide on the type and the number of screens, navigation, and the UI elements (such as menus, lists, buttons, icons, images, sliders, text fields, calendar, etc) and their positions on the screen.

You need to justify your selection and design decisions according to the guidelines in Section 4 of the report. The level of your critical thinking, and how relevant and important are these guidelines to the UI elements are considered as part of marking for this part.

You will decide on an appropriate title for each screen.

You will decide on providing save, edit and delete options where required.

1. The Login Screen

The sign-up/sign-in screen is the first screen that a user will see. A new user will select the sign-up option that will lead them to User Profile for data entry.

After the user completes the profile data entry, they will be able to sign into the system. Sign-in will involve entering an email and a password.

2. User Profile

The profile data entry will require the new user to enter their details including first name, surname, DoB, gender, nationality, current job, address, mobile phone, faculty name, course name, favourite unit (at Monash University), favourite sports, favourite food, favourite hobby, favourite movie, and an email and a password.

3. Home/main screen

The home screen will allow primary navigation to other screens: Search for Friends, Reports and Map.

This screen will welcome the user by their first name, and display a title (app name), a relevant image, date, and current outdoor temperature.

4. Multi-Criteria Search for friends

The search screen should allow the student to select multiple matching attributes to find a friend. The search should allow multiple selection of items at a time.

After selection, the app will display a list of students who meet these criteria with their information, and allow the student to choose any matching student, and add them as a Friend to their friend list.

You need to design this screen such that the details of matching students will not clutter the screen. The assumption here is that the selected student will receive a notification in their app to accept or decline the friendship offer. The user/student can also be selected as a friend by another student. These extra functionalities are not included to make the assignment load manageable.

5. Reports

This screen will allow the student to view the list of his/her current friends and delete any of them. It will also enable the student to view a report as a graph (static image) that will represent the degree of similarity of matching attributes for each friend and the student.

6. Maps

The map screen will show the current location of the student and all the matching students using different marker colours or symbols to differentiate between them. You will use static map images.

You can use marker overlays on the map to achieve this. When the student taps on a marker, it should show the friend details.

Submission Guideline:

You will upload a zip file to Moodle that includes:

- All the **files related to your prototype**,
- your **final report** as a Word document

The name of the report file should follow this format: **FIT5152Assign3-[student-surnname]-[studentid]-[tutor name]**

Late Submission:

Late Assignments or extensions will not be accepted unless you submit a special consideration form and provide valid documentation such as a medical certificate prior to the submission deadline (NOT after). Otherwise, there will be **5% penalty per day including the weekends**.

Plagiarism - PLEASE NOTE.

Before submitting your assignment, please **make sure that you have not breached the University plagiarism and cheating policy**. It is the student's responsibility to make themselves familiar with the contents of these documents.

Please also note the following from the Plagiarism Procedures of Monash, available at http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html
Plagiarism occurs when students fail to acknowledge that the ideas of others are being used. Specifically it occurs when:

- other people's work and/or ideas are paraphrased and presented without a reference;
- other students' work is copied or partly copied;
- other people's designs, codes or images are presented as the student's own work;
- Lecture notes are reproduced without due acknowledgement.