

Creating a Prototype User Interface and USABILITY testing

Task 4



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4067 cem

INTI International College Penang

**INTI International College Penang School of Engineering and Technology 3+0 Bachelor of Science (Hons) in Computer Science, in collaboration with Coventry University, UK**

# Coursework cover sheet

**Section A - To be completed by the student**

|  |  |
| --- | --- |
| Full Name: Adnan Irfan Potrik | |
| CU Student ID Number: 13446776 | |
| Semester: 2 | |
| Session:  **August 2022** | |
| Lecturer:  **Nadhrah Abdul Hadi (nadhrah.abdulhadi@newinti.edu.my)** | |
| Module Code and Title:  **4067CEM Software Design** | |
| Assignment No. / Title:  **Continuous Assessment** | % of Module Mark:  **50** |
| Hand out Date:  **6th September 2022** | Due Date:  **Task 1: 30 September 2022, by 11.59pm.**  **Task 2: 18 November 2022, by 11.59pm**  **Task 3: 4 November 2022, by 11.59pm.**  **Task 4: 4 November 2022, by 11.59pm.**  **Task 5: 4 November 2022, by 11.59pm.** |
| Penalties: No late work will be accepted. If you are unable to submit coursework on time due  to extenuating circumstances, you may be eligible for an extension. Please consult the lecturer. | |
| Declaration: I/we the undersigned confirm that I/we have read and agree to abide by the University regulations on plagiarism and cheating and Faculty coursework policies and procedures. I/we confirm that this piece of work is my/our own. I/we consent to appropriate storage of our work for plagiarism checking.  Signature(s): Text, whiteboard  Description automatically generated | |

# Section B - To be completed by the module leader

|  |  |  |
| --- | --- | --- |
| Intended learning outcomes assessed by this work:   1. Understand and apply appropriate concepts, tools and techniques to each stage of the software development 2. Understand and apply design patterns to software components in developing new software 3. Demonstrate an understanding of project planning and working to agreed deadlines, along with professional, interpersonal skills and effective communication required for software production   5. Demonstrate an awareness of, and ability to apply, social, professional, legal and ethical standards as documented in relevant laws and professional codes of conduct such as that of  the Malaysian National Computer Confederation. | | |
| Marking scheme | Max | Mark |
| 1. User Story Mapping | 20 |  |
| 2. Setting up a GitHub |  |
| Repository | 10 |
| 3. Creating a Class diagram and |  |
| design pattern selection | 30 |
| 4. Creating a Prototype User |  |
| Interface and Usability Testing | 20 |
| 5. Discuss the ethical issue |  |
| related to the software | 20 |
| Total | 100 |  |

Creating a Prototype of the User Interface

A prototype for the Buddy system was created using Figma.

Graphical user interface, application, Teams

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**Figure 1.1 – Logout Page**

**Graphical user interface, application

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**Figure 1.2 – Registration Page**

**Graphical user interface, text, application

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**Figure 1.3 – Home Page**

**Graphical user interface, text, application

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**Figure 1.4 – Help Page**

**Graphical user interface, application

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**Figure 1.5 – User’s Profile**

**Graphical user interface, application, Teams

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**Figure 1.6 – Profile Update Page**

**Graphical user interface, application

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**Figure 1.7 – Socializing Page**

**Graphical user interface, application

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**Figure 1.8 – Buddy’s Profile Page**

**Graphical user interface, application

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**Figure 1.9 – Direct Message Page**

**Graphical user interface, application

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**Figure 1.10 – Creating Group Page**

**Graphical user interface, application

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**Figure 1.11 Group Chat**

**Graphical user interface, application

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**Figure 1.12 Rating/Feedback Page**

A screenshot of a computer

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**Figure 1.13 Connections of all the frames**

As it is seen, above shown pictures is the prototype designed for each module to understand how the actual system would look like. Click the link to access the prototype <https://www.figma.com/file/8bYA50WfRP7yQwSpkhQga9/Untitled?node-id=0%3A1&t=e4kXzKALHIzDONby-1>

**Main Functions of Buddy System**

Talking about the Two main Functionalities about this system. As the name itself says, “Buddy Application”, it means it is for people to meet and interact new people in the campus. So the first main functionality of this application is the socializing part where the user can find different people and then text them to become closer friends.

**Graphical user interface, application

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**Figure 1.13 – Socializing Page**

The Figure 1.13 depicts the socializing page of the Buddy application, the user can find different people here. The user can click Next or Back option to scroll through the people present in the application. To know more about the Buddy, the user needs to click on the buddy’s name or their profile icon, and they will then be taken to the Buddy profile as shown in Figure 1.14.

**Graphical user interface, application, Teams

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**Figure 1.14 – Buddy Profile**

The above image shows the Profile of the buddy that the user is interested in. Here the user can know further more about the buddy. From here the user can either Like their profile, Send them Message or go back to the Socializing page.

**Graphical user interface, application

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**Figure 1.15 – Direct Message section**

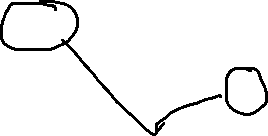
If the user clicks on “Send message” on the buddy profile, the user will be redirected to the personal message of the buddy. This is the place where the user can chat and interact with the buddy.

That’s for the first Function, now for the second function, as it is known, the user who is going to use this application needs to describe themselves too, so being able to go to ‘My Profile’ and viewing or changing your details is the second important function of this System.

Graphical user interface

Description automatically generated**Graphical user interface, application

Description automatically generated**



**Figure 1.16 – Finding the Profile button**

As indicated in the above picture, the user can press the circled icon to go to the user’s profile/ “my profile”.

**Graphical user interface, application

Description automatically generated**

**Figure 1.17 – Profile**

As shown in the figure 1.17, the user can see the details about themselves here. From here the user can either, go to the update profile menu, Logout of the application, or back to the socializing page.

**Graphical user interface, application, Teams

Description automatically generated**

**Figure 1.18 – Update profile**

Once the user clicks on “update profile”, they will be redirected to Update profile as shown in Figure 1.18. Here the user can change the details that is displayed on the profile. That includes name, age, hobbies and Address. And then confirm it all.

**Usability Testing –**

**Methodology**

Guerrilla testing will be used for my Buddy application. This method of testing ideas and getting feedback is relatively fast and informal, and it can uncover problems related to user experience. There are a number of places where you can do this: a cafe, a mall, or even on the street. In this case, I'm choosing the University cafeteria as the venue. In this testing method, it's recommended that you test eight to ten people during your hallway test, each lasting about ten minutes. So I’ll be finding around 10 people for this test, and providing them a small token of appreciation (gift) in return for getting my application tested.

The technique is straightforward, but a simple structure and preparation is needed to maximize its benefits.

**Process of testing this application**

As I’m in the university cafeteria, I’ll be finding a few students to help me do this testing. After finding students, I’ll have around 30 to 40 seconds to explain my pitch and plan to them. Each student who agrees to take part, will be in this session for a maximum 10 minutes. I’ll be explaining a scenario to the students, and then will allow them to start the application and analyze how hard or easy it was for them to achieve this task. I’ll be analyzing all of the things, like the time taken to find the particular function, and also noting down what questions or doubts they had during this task. Their tasks will be first to go on the socialize page and click on someone’s profile and then enter their DM. And the other will be to view their own profile.

**Session Outline and Timing**

The entire session will approximately take 8-10 minutes per student, therefore, around 1 hour and 20 mins. This session will also have a pre-test arrangement. I will be taking this testing session in the University Cafeteria in Penang.

**Pre-Test Arrangements**

Before the student takes the test, he/she must have to fill up a NDA (Non Disclosure Agreement), and also will be asked for consent regarding recording the session.

**Introduction to the session**

As the student agrees for the session, each of them will be introduced to this testing session. They will be explained the goals and the importance of their involvement. They will be informed about the recording system, of which the consent will obviously be asked. I will explain to them my role as the moderator. I would also encourage them to think aloud, while doing the task, as it’ll be helpful to understand what is going through their mind. They would also be informed about the little gift they would be getting on completion of this session.

**Background Interview**

While introducing the session, I would try to be friendly and ask them about their experience on using socializing/interaction applications like the Buddy Application. Along with this, I would try to know the reasons why they use such apps. I would mention the motive of my application as well.

**Tasks**

* Go on the Socialize page and click on someone’s profile and enter their chat.
* Go on Your Profile to view your details.

**Post-test Arrangement**

After the completion of the task, the student will be given a feedback Questionnaire to rate the application on all its aspects. The student will also be asked if he/she faced any problems and if he/she has their personal suggestions. In the end the student will be given their little token of appreciation, in this case, it's a free meal.

*Good evening, could I take a few minutes of yours for an application I built? In return ill gift you one meal from the canteen as a token of appreciation.*

*\*User uses the application and completes the task\**

*Please fill this form for research purposes.* **(Strongly Agree) (Strongly Disagree)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **1** | **2** | **3** | **4** | **5** |
| **1** | **I found this application useful.** |  |  |  |  |  |  |
| **2** | **This application helped me make new friends** |  |  |  |  |  |  |
| **3** | **It was easy figuring out the app** |  |  |  |  |  |  |
| **4** | **The task 1 was easy to complete** |  |  |  |  |  |  |
| **5** | **The task 2 was easy to complete** |  |  |  |  |  |  |
| **6** | **The Application was not confusing, it was straightforward** |  |  |  |  |  |  |
| **7** | **I found this application inconsistent** |  |  |  |  |  |  |
| **8** | **I think everyone would find this app easy to use as it is very user-friendly** |  |  |  |  |  |  |
| **9** | **I would need a technical staff to help me understand this app** |  |  |  |  |  |  |
| **10** | **I was confident during the testing phase** |  |  |  |  |  |  |
| **11** | **The Home page had the main functions in them** |  |  |  |  |  |  |
| **12** | **The icons used in the application were confusing** |  |  |  |  |  |  |
| **13** | **The color format and the decency was balanced all over** |  |  |  |  |  |  |
| **14** | **The system had a minimalist design** |  |  |  |  |  |  |
| **15** | **I would recommend this app to my friends** |  |  |  |  |  |  |