

# CS325 Group Project Assignment #3 – Prototype Development and Final Implementation

## 1. Overview

This group project assignment is the 3<sup>rd</sup> assignment for your group project. Based on the identified target application in your 1<sup>st</sup> and the conducted user and task analysis in your 2<sup>nd</sup> assignment, you are asked to do the following for **the EZAR part ONLY** of your target application.

### 1.1 Paper Prototype

#### 1.1.1. Build your prototype

You start with storyboards to sketch the key steps for EZAR and then develop a paper prototype. For the pieces of your paper prototype, you need to draw the static background, menus, dialog boxes, and other windows if needed. Hand-sketching is encouraged. You don't need to prepare every possible screen in advance; it may be much easier to write responses on the fly.

#### 1.1.2. Test your prototype

When the paper prototype is ready, invite **two** of your target users for EZAR to try your paper prototype with one team member acting as the facilitator and another member being the observer. You need to brief your target users before the testing starts and record the feedback from the testing. Then utilize the collected feedback to revise your paper prototype.

For the safety consideration of COVID-19, please ensure all the social distancing measures are properly complied to. In case it is really hard to invite the target users for the on-site testing, you may invite two students from another group to test it. Again, please make sure the social distancing measures are all fulfilled.

### 1.2 Computer Prototype

Based on the developed and tested Paper Prototype, your team can choose the form builder to develop the hi-fidelity in look Computer Prototype. You may choose the suitable form builder (software/tools) on your own decision.

Your computer prototype should be:

#### **High-fidelity in look**

Use this prototype to explore the graphic design of your final implementation. Lay out screens as you want them to appear in your final implementation. Make choices about colors, fonts, alignment, icons, and white space.

### **Low-fidelity in depth**

You can leave out most of your backend. Consider using static images in places where the final implementation would have to draw on the fly.

## **1.3 Final Implementation**

Based on the Computer Prototype, you need to do a working final implementation of your team project (high fidelity in breadth, depth, look).

Your implementation should have both frontend and backend and should be complete and ready to test users on the tasks for your paper prototype. User interactions should be live. For some projects, we understand that a complete backend may be beyond the scope of this module, and allowances will be made for that (please note that you need to ensure that this is clearly elaborated in your report and demonstration whose requirements will be shared with you at a later time).

Please note that:

- There will be another assignment to evaluate your final implementation and it is recommended that you plan your timeline in advance;
- Your team will be asked to demo the final implementation in the last week of the module. More details about the demonstration will be released at a later time.

## **2. Deliverables**

### **2.1 Essay**

Each group needs to submit an essay and your essay should include sessions covering Paper Prototype, Computer Prototype and Final Implementation. Your essay should follow the naming convention of: "CS325\_PA3\_Group X\_Essay.docx".

Specifically, you need to include:

For Paper Prototype:

- Photos of sketches of storyboards with descriptions for each key step
- Photos of the pieces of your paper prototype. Show the paper prototype in interesting states; don't just show a blank window. Although you will iterate your paper prototype, the photos only need to show the final iteration.
- The observations from the testing and describe how your paper prototypes are changed through iterations.

For Computer Prototype:

- Photos of each piece of your computer prototype
- Specify the form builder utilized for your computer prototype

For Final Implementation:

- Specify the platform, libraries, engines, etc used to develop the workable prototype
- Brief step-by-step instructions on how to use the developed prototype

A cover page should be added to the essay and should include the administrative information of the team, such as the Group Number, the names of the team members, etc.

## **2.2 Raw materials/source code/executable**

Each team needs to submit zipped files which includes the original raw materials/source code/executable for the Computer Prototype and Final Implementation.

For Computer Prototype:

- Zip all the raw materials (i.e. generated source code from C#.NET, project files for WPF, etc) into one folder following the naming convention: "CS325\_PA3\_Group X\_CP.zip"

For Final Implementation:

- Zip all the source codes into one folder following the naming convention: "CS325\_PA3\_Group X\_SC.zip"
- Zip the runnable EZAR system with the necessary libraries into one folder following the naming convention: "CS325\_PA3\_Group X\_EXE.zip"

## **3. Assessment Guidelines**

### **3.1 Paper Prototype (7.5%)**

- Completeness and presentation of the storyboards and the pieces of the paper prototype
- The effectiveness of the user testing for design improvements
- Application of the taught knowledge in the module

### **3.2 Computer Prototype (7.5%)**

- Fidelity in look of each piece of UI
- Completeness of the pieces of the computer prototype
- Application of the taught knowledge in the module

### **3.3 Final Implementation (25%)**

- Fidelity in breadth, depth, look of the workable prototype
- Application of the taught knowledge in the module

## **4. Submission**

Each team needs to submit:

- An essay: CS325\_PA3\_Group X\_Essay.docx
- A zipped folder for raw materials of Computer Prototype: CS325\_PA3\_Group X\_CP.zip
- A zipped folder for raw materials of Final Implementation: CS325\_PA3\_Group X\_SC.zip
- A zipped folder for the executable of Final Implementation: CS325\_PA3\_Group X\_EXE.zip

Each group only needs to make one submission. The deadline for the submission is: **11:59PM on 26 Nov 2021 (Friday)**.