

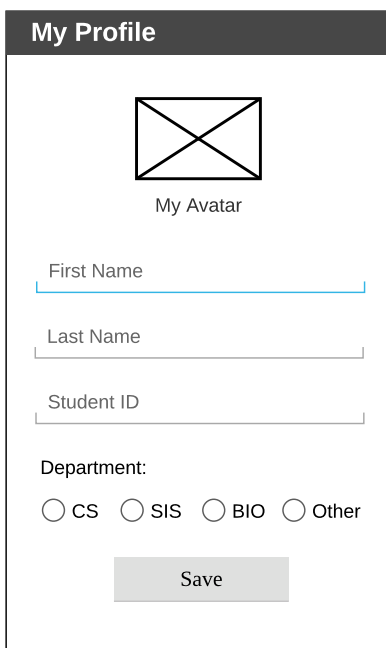
ITIS/CS 5180 Mobile Application Development
Homework 06

Basic Instructions:

1. Each team is required to submit the assignment on Canvas.
2. Please download the support files provided with this assignment and use them when implementing your project.
3. Submission details:
 - a. Compress the contents of your project folder. The file name is very important and should follow the following format: **HW06_Group#.zip**
 - b. **Only one group member is required to submit on behalf of the whole group.**
 - c. You should submit the assignment through Canvas: Submit the zip file.
4. The required Android Virtual Device (AVD) should have **minimum SDK version set to 25 and target SDK at 28+**.
5. **Failure to follow the above instructions will result in point deductions.**

Homework 06 (100 points)

In this assignment you will get familiar with fragments and how to communicate between fragments and the activities. We are revisiting the “Student Profile Builder”



My Profile

My Avatar

First Name

Last Name

Student ID

Department:

☐ CS ☐ SIS ☐ BIO ☐ Other

Save

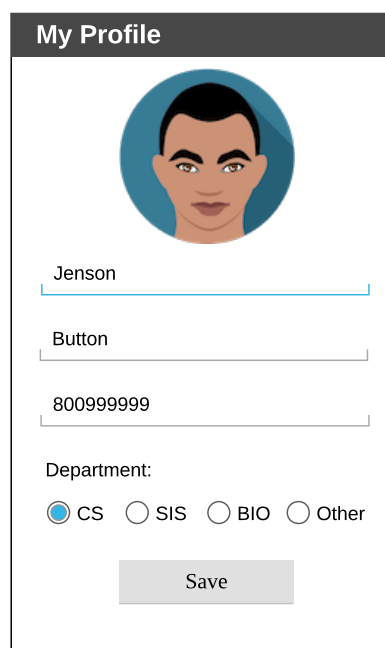
(a) My Profile screen



Select Avatar

Grid of 6 avatars: 1. Woman with brown hair, 2. Man with dark skin, 3. Woman with red hair, 4. Man with dark skin, 5. Woman with dark skin, 6. Man with light skin.

(b) Clicking on My Avatar Image opens Select Avatar screen



My Profile

Jenson

Button

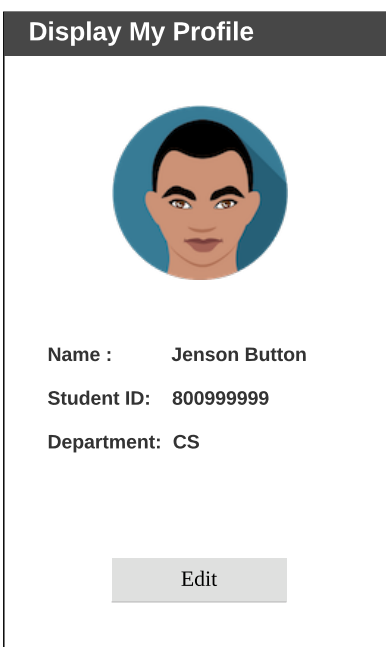
800999999

Department:

☒ CS ☐ SIS ☐ BIO ☐ Other

Save

(c) Clicking on the avatar gets back to My Profile screen



Display My Profile

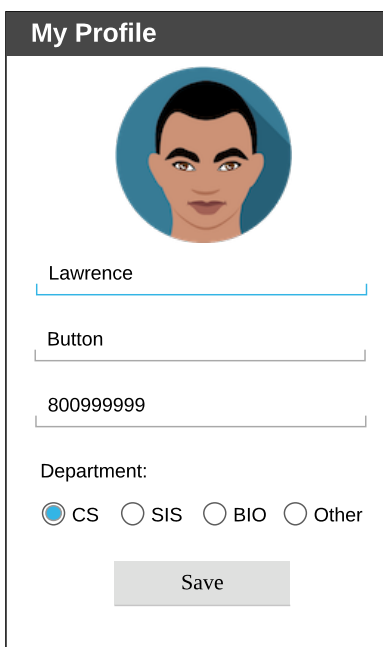
Name : Jenson Button

Student ID: 800999999

Department: CS

Edit

(d) Clicking on Save button takes to Display My Profile screen



My Profile

Lawrence

Button

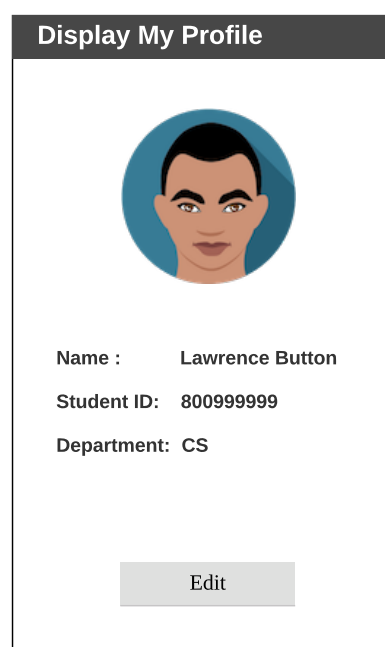
800999999

Department:

☒ CS ☐ SIS ☐ BIO ☐ Other

Save

(e) Editing screen



Display My Profile

Name : Lawrence Button

Student ID: 800999999

Department: CS

Edit

(f) Updated profile screen.

Figure 1: App wireframes

application that enables a new student to enter and edit their information, and save it using shared preferences. This assignment is composed of three fragments namely: My Profile (main screen), Select Avatar, and Display My Profile.

When the app starts, check if there is any profile already saved in SharedPreferences. If there is already a profile saved in the SharedPreferences, load the saved profile and Display My Profile Screen. Else, load My Profile Screen.

Part 1 (My Profile screen, 60 points): this screen contains, one ImageView, three EditTexts, One RadioGroup, and one Save button. This screen should be displayed when the activity loads. Please implement the following functionalities:

1. Clicking on the My Avatar ImageView should take you to Select Avatar screen, see Figure 1(a and b). Replace the fragment with Select Avatar fragment.
2. You should be able to put first name, last name, and your student ID in the corresponding EditTexts. Use hints to display the hints, 'First Name', 'Last Name', and 'Student ID'. Don't accept anything except a nine digits positive integer as the student ID. See Figure 1(c).
3. You should be able to select a department from four options: CS, SIS, BIO, and Other. Use a RadioGroup of four RadioButtons to implement that, as it is shown in Figure 1(c).
4. Clicking on the Save Button should
 1. Replace this fragment with Display My Profile fragment implementing an interface to set the corresponding components in Display My Profile screen.
 2. **Save/Update the profile in SharedPreferences using GSON library.**

Part 2 (Select Avatar screen, 20 points):

1. This screen contains six ImageViews, see Figure 1(b).
2. Use the resource files to design the fragment. You will find six avatar images in the resource files.
3. Clicking on any of the avatar should implement an interface to replace this fragment with My Profile fragment and set the selected Image to My Profile screen.

Part 3 (Display My Profile screen, 20 points):

1. This screen contains an ImageView, several TextViews, and a Button.
2. It should display the avatar, name, student ID, and the department as it is shown in Figure 1(d).
3. Name should be created concatenating the first and the last names.
4. Clicking on the Edit button should implement an interface to replace this fragment with My Profile fragment and set the corresponding components to My Profile screen, see figure 1(d and e).