

Mobile App Development
In-Class Assessment 3 (2 Hours)

Basic Instructions:

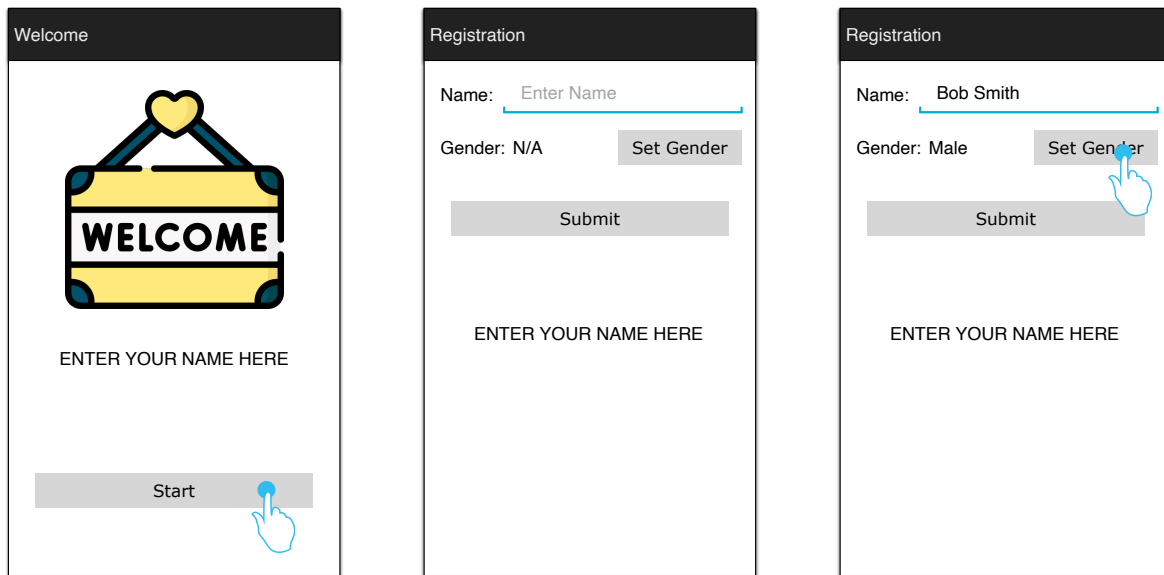
1. This is an In Class Assessment, which counts for 10% of the total course grade.
2. This assessment is an individual effort. Each student is responsible for her/his own assessment and its submission.
3. Once you have picked up the assessment, you may not discuss it in any way with anyone until the assessment period is over.
4. During the assessment, you are allowed to use the course videos, slides, and your code from previous home works and in class assignments. You can use the internet to search for answers. You are NOT allowed to use code provided by other students or solicit help from other online persons.
5. Answer all the assessment parts, all the parts are required.
6. During the assessment the teaching assistants and Instructors will pass by each student and ask them to demonstrate their application. Your interaction with the teaching assistants and instructors will be taken into consideration when grading your assessment submission.
7. Please download the support files provided with the assessment and use them when implementing your project.
8. Your assignment will be graded for functional requirements and efficiency of your submitted solution. You will loose points if your code is not efficient, does unnecessary processing or blocks the UI thread.
9. Create a zip file which includes all the project folder, any required libraries, and your presentation material. Submit the exported file using the provided canvas submission link.
- 10. Do not try to use any Social Messenger apps, Emails, Or Cloud File Storage services in this exam.**
- 11. Failure to follow the above instructions will result in point deductions.**
- 12. Any violation of the rules regarding consultation with others will not be tolerated and will result disciplinary action and failing the course.**

In-Class Assessment 3 (100 Points)

In this assignment you will get familiar with Android Fragments.

Setup Instructions:

1. You are provided with a skeleton application which includes all the layout files and activities required for this assignment, so please use the provided skeleton app.
2. In the “strings.xml” file change the “your_fullname” item to show your full name, this will be used for grading during the assessment session.
3. This application includes one Activity and multiple fragments.



(a) Welcome Fragment (b) Registration Fragment (c) Registration Fragment

Figure 1, Application User Interface

Part 1, Welcome Fragment (10 Points):

The Main Activity is the only activity in this app, and it should load the Welcome Fragment when it loads as shown in Figure 1(a). The requirements are listed below:

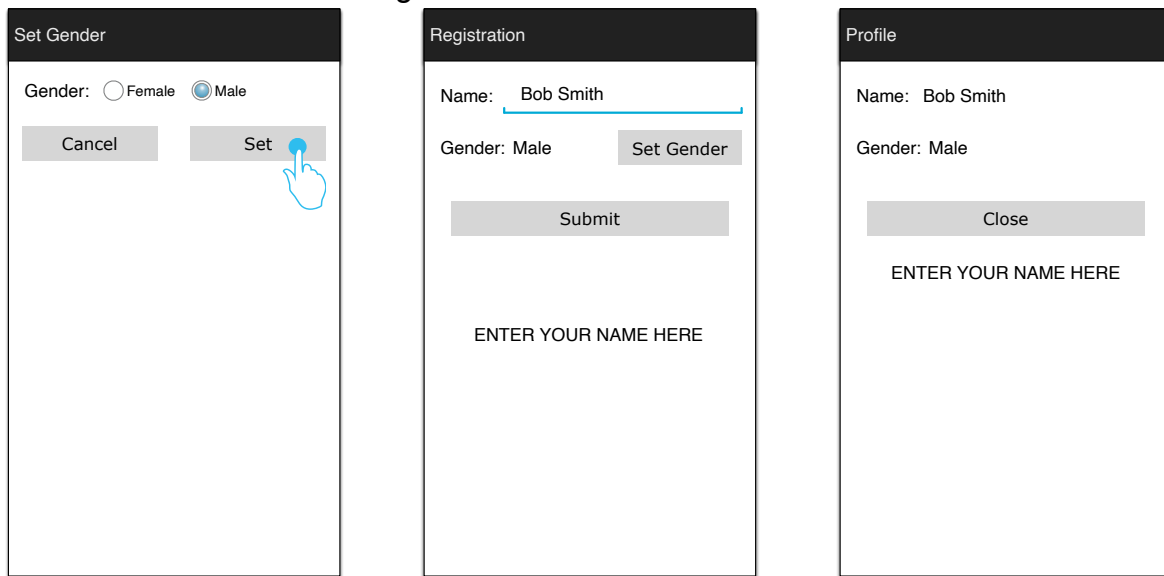
1. Clicking the “Start” button should communicate with the Main Activity to:
 - a. Replace the current fragment with the Registration fragment.
 - b. Push the current fragment on the back stack.

Part 2, Registration Fragment (45 Points):

This fragment is shown in Fig 1(b). The requirements are listed below:

1. Create a Profile class to hold the created user profile.
2. The form requests the user’s name, and gender, see Figure 1(b).
3. Clicking the “Set Gender” button should communicate with the Main Activity to:
 - a. Replace the current fragment with the Set Gender fragment.
 - b. Push the current fragment on the back stack.
 - c. Upon returning from the Set Gender fragment the selected gender should be received through the Main Activity, sent to the Registration fragment and should be displayed see Fig 2(b).

4. Clicking the “Submit” button should:
 - a. Check if all the input fields are entered and a gender is selected. If any of the inputs or the department is missing show a toast indicating the error.
 - b. If all the fields are entered then create a Profile object to hold the entered information. Send the created Profile object to the Main Activity which should:
 - i. Replace this fragment with the Profile fragment, send the Profile object to the the Profile fragment.
 - ii. Push the current fragment on the back stack.



(a) Set Gender Fragment (b) Registration Fragment (c) Profile Fragment

Figure 2, Application User Interface

Part 3, Set Gender Fragment (25 Points):

This fragment allows the user to select a department as shown in Fig 2(a). The requirements are listed below:

1. The user is able to select a gender from the displayed Radio Group.
2. Clicking “Set” should send the selected gender to the Main Activity to:
 - a. Find the Registration fragment by tag, send it the received new gender.
 - b. Pop the back stack, which should display the Registration fragment which should display the selected gender as shown in Fig 2(b).
- iii. Clicking “Cancel” should simply communicate with the Main Activity to pop the back stack, which displays the Registration fragment.

Part 4, Profile Fragment (20 Points):

This fragment allows the user to view the submitted profile as shown in Fig 2(c). The requirements are listed below:

1. The Profile object is received by this fragment from the Registration fragment via the Main Activity. Display the Name, and Gender as shown in Fig 2(c).
2. Clicking “Close” should simply communicate with the Main Activity to pop the back stack, which displays the Registration fragment.

Section:	
Student Name:	
Student ID:	

Part #	Features	Total	Grade	Comments
P1	Clicking Start - Shows the Registration fragment and pushes the current fragment to back stack. Interface implemented.	10		
P2	Clicking Set Gender: Shows the Set Gender fragment and pushes the current fragment back stack. Interface implemented.	20		
P2	Returning from Set Gender: the selected gender is sent to the fragment and is displayed	10		
P2	Clicking Submit: Validation done correctly.	5		
P2	Clicking Submit: Profile object sent to the Main Activity through the interface implementation which is then sent to the Profile Fragment.	10		
P3	Click Set: sends the selected gender to the Main Activity through the interface implementation, which is sent to the Registration fragment by finding it by tag	20		
P3	Click Cancel: connects to Main Activity through the interface implementation, which then pops the back stack.	5		
P4	Receives Profile object and displays it correctly. The newInstance Method created correctly.	15		
P4	Click Close: connects to Main Activity through the interface implementation, which then pops the back stack.	5		
	Total	100		

Table 1: Grading Key