

Mobile Application Development  
Assignment 04 (100 Points)

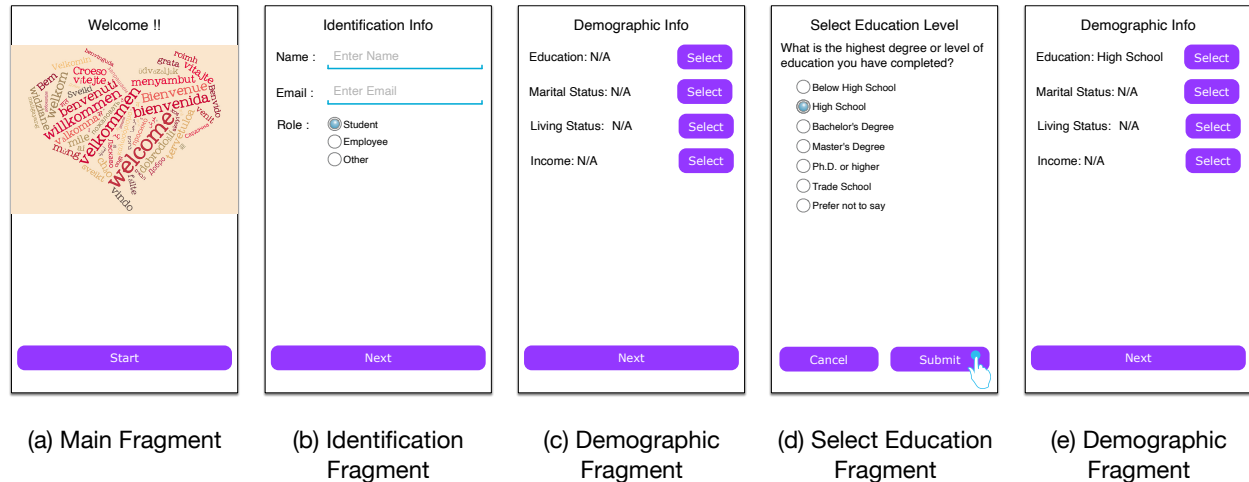
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**Basic Instructions:**

1. In every file submitted you MUST place the following comments:
  - a. Assignment #.
  - b. File Name.
  - c. Full name of the student.
2. Each group is required to submit the assignment on Canvas.
3. **Submit Codes:**
  - a. Zip all the project folder to be submitted on canvas.
4. Submission details:
  - a. The file name is very important and should follow the following format:  
**Assignment#.zip**
  - b. You should submit the assignment through Canvas: Submit the zip file.
5. **Failure to follow the above instructions will result in point deductions.**

In this assignment you will be building an application that uses a single activities and multiple fragments. All and exchanges data among these activities. Structure and important setup are listed below:

**- In this app you will have only one Activity and multiple fragments, all communication between fragments should be managed by the Main Activity.**



**Figure 1, App Wireframe**

### Part 1, Main Fragment (5 Points, In Class):

The Main Activity should load this fragment (Main Fragment) when the application loads, as shown in Figure 1(a). The requirements are listed below:

1. The activity displays the welcome photo as shown in the figure.
2. Clicking the “Start” button should:
  - a. Replace this fragment with the Identification fragment.

### Part 2, Identification Fragment (10 Points, In Class):

This fragment is shown in Figure 1(b). Please follow the steps to build this screen:

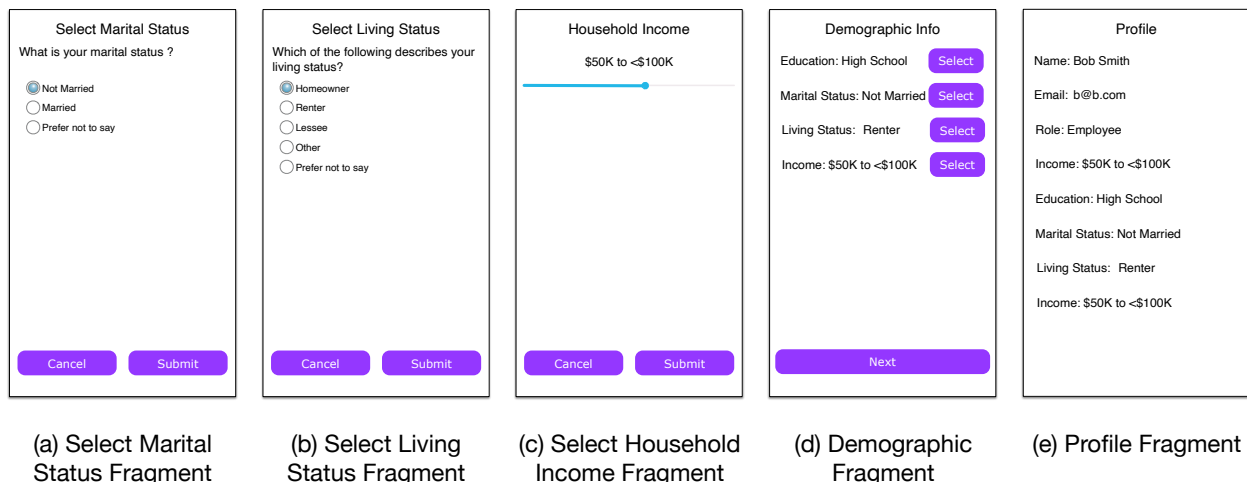
1. The fragment requests the user’s name, email, and role. Create a Response class to hold these attributes, the class should implement Serializable or Parcelable interface.
2. Make appropriate Toasts whenever any invalid input is detected after you click Next.
3. Clicking the “Next” button should:
  - a. If any of the inputs are missing, then show a Toast message indicating that the corresponding input is required.
  - b. If all the input is correctly provided, then perform the following:
    - i. Create a Response object initialized with the provided input.
    - ii. Replace this fragment with the Demographic fragment, send the Response object to the the Demographic fragment.
    - iii. Push the current fragment on the back stack.

### Part 3, Demographic Fragment (35 Points, Partial In Class):

This fragment is shown in Figure 1(c). Please follow the steps to build this screen:

1. The fragment requests the user’s education level, marital status, living status and annual income. Update the Response class to also hold these attributes.

2. Note that this fragment should receive a Response object from the Identification fragment, which should be used to continue to store the user provided input.
3. Clicking the “Select” button should:
  - a. **(In Class)** For education level, replace the current fragment with the Select Education Fragment and push the current fragment on the back stack. Upon returning from the Select Education Fragment, the selected education level value should be displayed in the TextView as shown in Figure 1(e).
  - b. For marital status, replace the current fragment with the Select Marital Status Fragment and push the current fragment on the back stack. Upon returning from the Select Marital Status Fragment, the selected marital status value should be displayed in the TextView as shown in Figure 2(d).
  - c. For living status, replace the current fragment with the Select Living Status Fragment and push the current fragment on the back stack. Upon returning from the Select Living Status Fragment, the selected living status value should be displayed in the TextView as shown in Figure 2(d).
  - d. For annual income, replace the current fragment with the Select Income Fragment and push the current fragment on the back stack. Upon returning from the Select Income Fragment, the selected annual income value should be displayed in the TextView as shown in Figure 2(d).
4. Clicking the “Next” button should:
  - a. If any of the inputs are missing, then show a Toast message indicating that the corresponding input is required.
  - b. If all the input is correctly provided, then perform the following:
    - i. Update the Response object to include the user selections.
    - ii. Replace this fragment with the Profile fragment, send the Response object to the Profile fragment.
    - iii. Push the current fragment on the back stack.



**Figure 2, App Wireframe**

**Part 4, Select Education Fragment (10 Points, In Class):**

This fragment is shown in Figure 1(d).

1. The user is able to select one of the options provided in the radio group.
2. Clicking “Cancel” should simply communicate with the Main Activity to pop the back stack, which displays the Demographic fragment.
3. Clicking “Submit” should send the selected value to the Main Activity to :
  - a. Find the Demographic fragment by tag, send it the received value.
  - b. Pop the back stack, which should display the Demographic fragment which should display the selected value.

**Part 5, Select Marital Status Fragment (10 Points):**

This fragment is shown in Figure 2(a).

1. The user is able to select one of the options provided in the radio group.
2. Clicking “Cancel” should simply communicate with the Main Activity to pop the back stack, which displays the Demographic fragment.
3. Clicking “Submit” should send the selected value to the Main Activity to :
  - a. Find the Demographic fragment by tag, send it the received value.
  - b. Pop the back stack, which should display the Demographic fragment which should display the selected value.

**Part 6, Select Living Status Fragment (10 Points):**

This fragment is shown in Figure 2(b).

1. The user is able to select one of the options provided in the radio group.
2. Clicking “Cancel” should simply communicate with the Main Activity to pop the back stack, which displays the Demographic fragment.
3. Clicking “Submit” should send the selected value to the Main Activity to :
  - a. Find the Demographic fragment by tag, send it the received value.
  - b. Pop the back stack, which should display the Demographic fragment which should display the selected value.

**Part 7, Select Income Fragment (10 Points):**

This fragment is shown in Figure 2(b).

1. The user is able to select the income level from 0 to 4 using the slider.
  - a. The income levels are <\$25K, \$25K to <\$50K, \$50K to <\$100K, \$100K to <\$200K, and >\$200K corresponding to slider levels 0 to 4 respectively.
  - b. Setup the correct slider handler to change the income level TextView when the slider is moved as shown in Figure 2(c).
2. Clicking “Cancel” should simply communicate with the Main Activity to pop the back stack, which displays the Demographic fragment.
3. Clicking “Submit” should send the selected value to the Main Activity to :
  - a. Find the Demographic fragment by tag, send it the received value.
  - b. Pop the back stack, which should display the Demographic fragment which should display the selected value.

**Part 8, Profile Fragment (10 Points):**

1. This fragment should receive the completed Response object from the Demographic fragment.
2. Display the responses as shown in Figure 2(e).

Part #	Features	Total
Part 1	<b>(In Class)</b> Main Fragment: UI Completed and clicking on the “Start” button, replaces this fragment with the Identification Fragment.	5
Part 2	<b>(In Class)</b> Identification Fragment: UI Completed and clicking on the “Next” button replaces this fragment with the Demographic Fragment and sends it the Response object. Validation completed correctly.	10
Part 3	<b>(In Class)</b> Demographic Fragment: UI Completed and clicking on the “Select” button for Education replaces this fragment with the “Select Education” Fragment and pushes the current fragment to the back stack using an interface.	5
Part 4	<b>(In Class)</b> Select Education Fragment: UI Completed and clicking on the “Submit” button sends the result back to the Main Activity, which then sends it to the Demographic Fragment.	10
Part 3	<b>(In Class)</b> Demographic Fragment: Upon returning (popped from back stack) after visiting the Select Education Fragment the selected education level is displayed in the TextView.	5
Part 5	Select Marital Status Fragment: UI Completed and clicking on the “Submit” button sends the result back to the Main Activity, which then sends it to the Demographic Fragment.	10
Part 6	Select Living Status Fragment: UI Completed and clicking on the “Submit” button sends the result back to the Main Activity, which then sends it to the Demographic Fragment.	10
Part 7	Select Income Fragment: UI Completed and clicking on the “Submit” button sends the result back to the Main Activity, which then sends it to the Demographic Fragment.	10
Part 3	Demographic Fragment: UI Completed and clicking on the other “Select” buttons triggers the corresponding fragments. Upon returning the selected result is displayed.	20
Part 3	Demographic Fragment: Clicking on the “Next” button replaces this fragment with the Profile Fragment and sends it the Response object. Validation completed correctly.	5
Part 8	Profile Fragment: UI Completed, receives the Response object and displays the information correctly.	10
	<b>Total</b>	<b>100</b>
<b>Table 1: Grading Key</b>		