

# Mobile Computing Android

## Assignment #7

### Points: 80

**Goal:** Build a simple tabbed app that uses a toolbar and a couple of fragments. It will help someone determine how long he or she should brew his or her tea.

#### Requirements:

- 1) You will have a main Activity
  - a. It will have an action bar and view pages.
  - b. The action bar will have two possible selections, "About me" and "Contact me".
  - c. The "About me" action will use a Toast to display your name and favorite color.
  - d. The "Contact me" action will create an implicit intent to start an email activity.
- 2) It will have a tabbed fragment BlackTeaFragment that has two numerical EditText's, a TextView, and a button.
  - a. The first EditText is where the user will enter a volume of water in milliliters
  - b. The second EditText is where the user will enter the weight of the dry tea in grams.
  - c. When the button is clicked, a brew time will be computed using the following formula:  $Time = 3 \frac{Volume}{Weight}$
  - d. The time TextView is where the time in seconds will be displayed.
- 3) It will have a tabbed fragment OolongTeaFragment that has two numerical EditText's, a TextView, and a button.
  - a. The first EditText is where the user will enter a volume of water in milliliters
  - b. The second EditText is where the user will enter the weight of the dry tea in grams.
  - c. When the button is pressed, a brew time will be computed using the following formula.  $Time = \frac{2}{3} \frac{Volume}{Weight}$
  - d. The time TextView is where the time in seconds will be displayed.
- 4) These two fragments should be accessible through swipe.
- 5) The app should be tested properly and should not crash in any scenario. Use appropriate Toast messages.

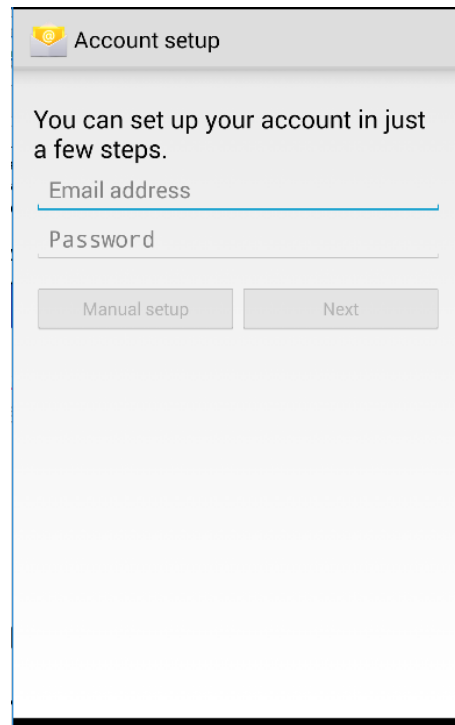
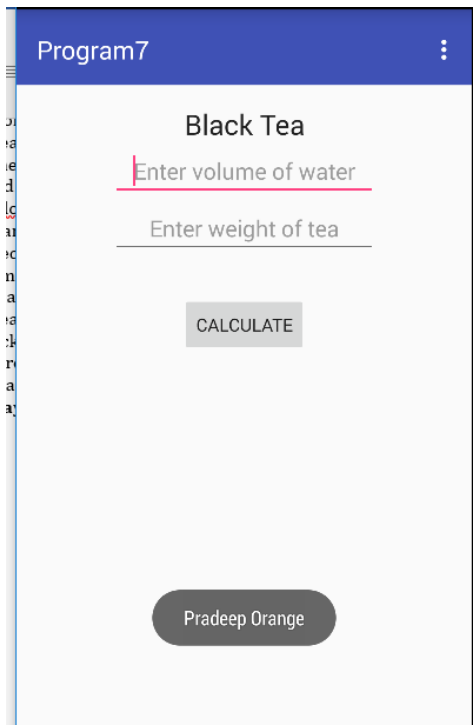
#### Bonus:

- Change the action bar so that the actions use icons.
- Create another tabbed fragment AboutMeFragment that displays extra about me information.

- Create another tabbed fragment TeaHistoryFragment that displays information about tea.
- Create another tabbed fragment that computes preparation times for some other beverages (coffee, chai, iced tea, etc)
- Add appropriate images to the BlackTeaFragment and the OolongTeaFragment.
- Change the time TextView into an EditText. When the user clicks the button, check to find the EditText that does not have a value and use the formula to compute it. If only one field has a value, do nothing. If all fields have a value, create a dialog that gives the user the option of clearing all the values.
- Create a button that on Click will change the time from seconds to minutes or back.

**Note:** There is lot of scope for improvement in the application. So use your creativity and beautify the application.

**Sample Layout (Rough Sketch):**



Program7

Black Tea

10

6

Time required is 5 seconds

CALCULATE

Program7

Oolong Tea

48

10

Time required is 3 seconds

CALCULATE