

# Studio2

CSE 438

Spring 2020

## 1 Introduction

You have been tasked with making an app to track information for a new financial startup: Bottoms at the Top Financial Investors. The goal of the app is to be able to deposit and withdraw money from a single account and to display the current balance of the single user's account.

## 2 Resources

The below links may be helpful in completing the assignment.

- [Google Code Lab Fragments](#)
- [Google Code Lab Activities](#)
- [Android Documentation on Intents](#)
- [Android Documentation on Fragments](#)

## 3 Assignment

1. Begin by forming a group. A good group should have 2-3 people, but no more than four. Once you have formed a group, have one group member set up the team and the repository on GitHub by clicking [here](#). The other group members should then join the group and can use the same repository.
2. The repository contains a simple banking app that lets users do withdrawals and deposits. Notice that the layouts have already been created for you. Take a few minutes to familiarize yourself with them.
3. The MainActivity needs to be connected to the ChangeActivity. Open the MainActivity kotlin file and add in the code needed to connect these two activities. Test your implementation.

4. You'll notice that the `ChangeActivity` has a frame layout. This will be used as a destination for our two fragments: `DepositFragment` and `WithdrawFragment`. Include code within `ChangeActivity` to set the initial fragment, and code up the button so that it will switch between the two fragments when the button is pressed.
5. Each of the two fragments has a button that will redirect to the `MainActivity` and update the displayed total on the `MainActivity` based on the value input into the textbox. The `DepositFragment` should add to the user's total and the `WithdrawFragment` should subtract from the user's total when the transaction is submitted. Include code in these fragments to implement this functionality (you may want to take a look at the hints below before getting started on this part).

## 4 Hints

The below code is used to get data from an intent within a fragment. Note that intents are part of activities and NOT fragments so we have to reference activities through fragments in order to access intents.

```
val intent = activity!!.intent
total = intent!!.getIntExtra("total", 0)
```

There is a similar implementation for creating intents within fragments.

```
val intent = Intent (activity, MainActivity::class.java)
intent.putExtra("total", total)
activity!!.startActivity(intent)
```

## 5 Requirements

- A `MainActivity` that displays the current total on the account
- A button that redirects from the `MainActivity` to another activity
- A separate `ChangeActivity` for withdrawing and depositing money into the account that manages withdrawals and deposits to the account
- A button to toggle between a `WithdrawFragment` and a `DepositFragment` on the `ChangeActivity`
- A `WithdrawFragment` that contains an input field for a number of dollars to add to the account. When the amount is submitted, the user is redirected to the `MainActivity` and the balance is updated to reflect the changes
- A `DepositFragment` that contains an input field for a number of dollars to add to the account. When the amount is taken, the user is redirected to the `MainActivity` and the balance is updated to reflect the changes