Phase 1

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### **Project Title:**

Financial Manager App

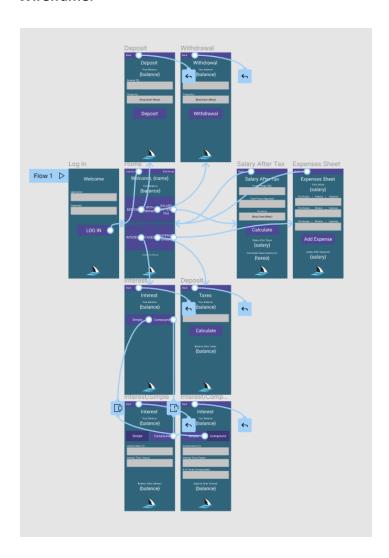
# **Project Description:**

Our Financial manager app will allow our users to track their expenses and income on different time frames including weekly, monthly as well as yearly. Moreover, our app could be set to different currencies such as euros €, pounds £, USD and CAD. We will also include some convenient tools such as a sales and tax calculator, charts, etc. Lastly, what separates us from our competitors is that our app provides a lot of useful capital/money management tips to our users such as stocks and crypto investments, mutual funds and ETFs, real estate and many other investment tips.

#### Phase 2 - Requirements Definition:

- 1. An existing user can log into the app with their email address and password.
- 2. A new user can register for an account with their email address and password.
- 3. The income and expense calculator is viewable and interactable after logging in.
- 4. There are an infinite number of spaces to add additional sources of income through the app.
- 5. The currency used for the income and expense calculator can be adjusted to any type around the world.
- 6. Tips will be presented at the bottom of the app GUI and periodically refresh itself to present new tips on investing, money management, etc.
- 7. Compound interest for savings is automatically calculated after a user-specified input.
- 8. Tax-reduction is calculated after user-specified inputs.
- 9. Tax-return is calculated after user-specified inputs.
- 10. There are an infinite number of spaces to enter in daily expenses. These expenses are calculated with the salary of the user to return the profits by the end of their work term.
- 11. A log-out button will be visible for all users, located at the bottom of the app GUI (below the tips) after its financial features.

#### Wireframe:



## Phase 3 - Technologies and Tools Used:

Some technologies and tools that have been implemented into the app are the Android Button and Content packages, as well as Widgets, TextViews, Toolsbars and more for the activity designs. The backend development of the app is written in Java.

- We have also successfully coded most of the buttons in our app which allows the user to go back to the previous page, calculate certain finances etc.
- The Button Widgets allow the user to move from one activity to another, login into the app to access its features, and interact with the features.
  - Each button has its own specific label to be identified by findViewById method. This method is primarily used on the Home Page activity to navigate which buttons are being pressed for specific interactions.
- The TextView Widgets describe the type of input needed for specific activities or describe the activity itself, from the Home Page to the Interest Calculations and Financial Tips.
  - The Text attribute of the activities is bound to String resources.
- Necessary imports from the Android packages are added such as Content and Widget to add functionality behind the Button and TextView Widgets.
- The Button Widgets rely on the onClickListeners to detect any interactions and execute the specified methods (i.e. for the Home Page, pressing the "Deposit" button will take the user to the Deposit activity).
- The TextView, Button, Toolbar, and other Widgets are horizontally constrained to the Pixel Phone view or each other. These constraints currently only work for the horizontal view of the phone.
- Each activity (.xml) is linked to its own class (.java) to handle all of the activities interactions and features. (i.e. Deposit.java is linked to activity\_deposit.xml).