

## **Term Project on CS-691 (HCI)**

**Supervisor Name: Prof Dr. Songmei Yu**

### **Mobile App Design Interface for Fin-Tech (Felician Stock Investment)**

#### **Problem statement:**

Among the vast FinTech industry services, the stakeholders of a big corporation require platform independent (Android & IOS) apps to facilitate their customers who want to make stock Management (stock Portfolio & Trade) through mobile apps.

#### **Project Scope:**

Initially, the App's will cover the following functionalities in order to make a complete workflow from User Registrations to Stock Trade executions.

Scopes of Interfaces:

1. New User Sign Up
2. Existing User Login
3. Home Screen
4. Main Menu
5. Notifications
6. Primary Accounts
7. Available Balance
8. Recent Transactions (Withdrawn & Deposits)
9. Recent Transactions
10. Funding Account (Cash & Credit)
11. Referral Link
12. Navigation Pane
13. Security Module (Authentication & Authorization)

### Project Phases

Prototype Description: An overview of the prototype & each piece of the prototype in more detail, using screenshots or photographs and software to help illustrate the design.

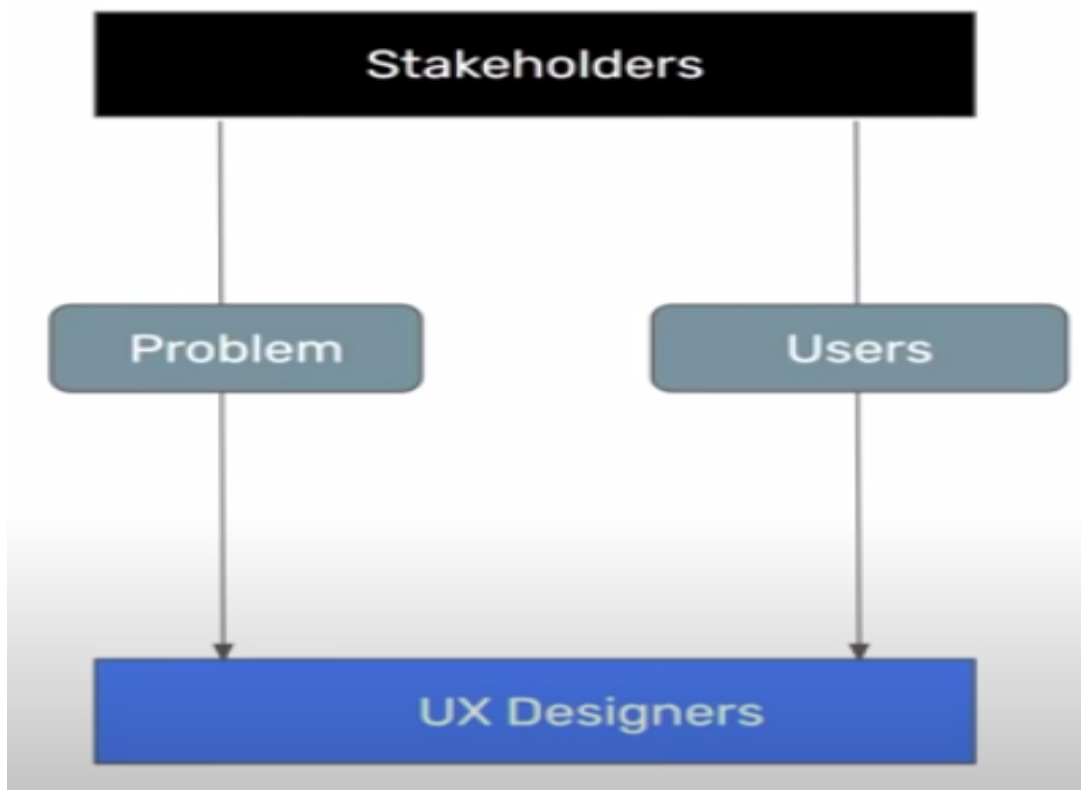
Evaluation: In the final part of the project, I will conduct an evaluation of the prototype developed.

### Project Presentation

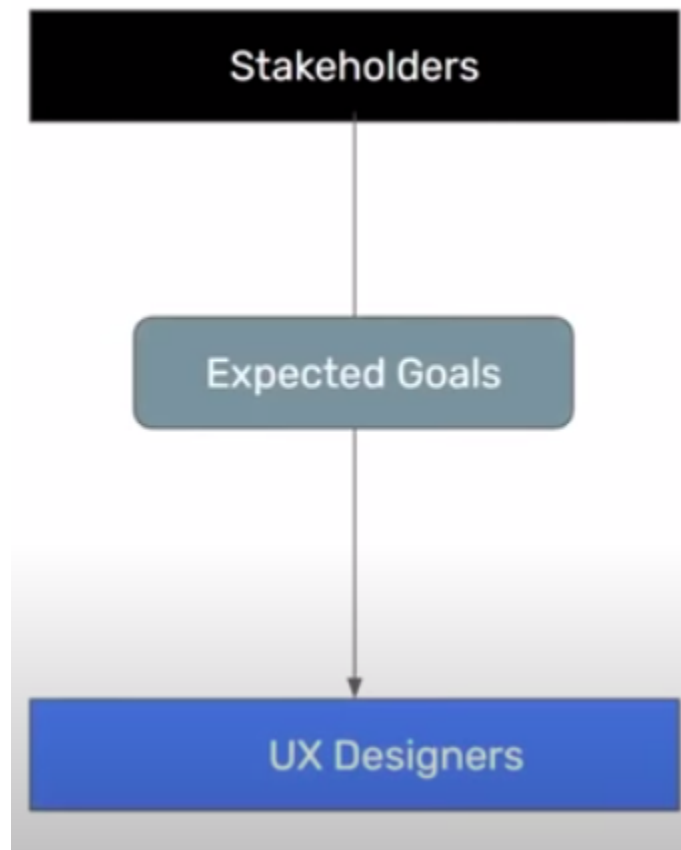
In the presentation Motivation, Top requirements, Design, Evaluation & Conclusions will be discussed.

### **WHY THIS PROJECT**

Stakeholders want to solve the problem that is facing by the potential customers during the time of STOCK TRADING in online / through mobile Apps

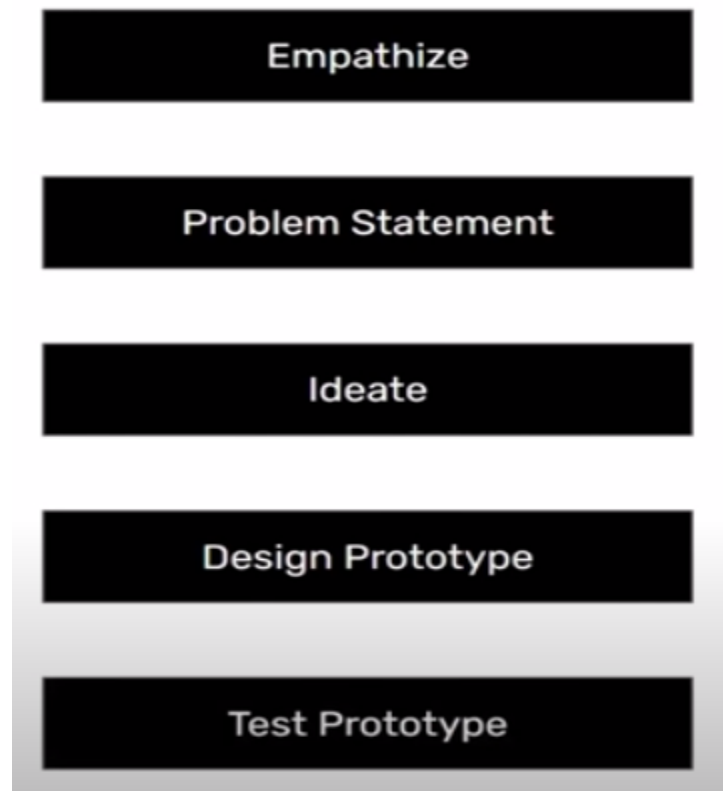


### Stakeholders expected goals



In order to meet the expected goals of the stakeholders, to improve the customers experiences during the time of online stock trading, the stakeholders have expressed their goals to the UX designers to develop such a interface of mobile Apps, which will not only enhance the customers better online trading experiences , but also enhance the System Security and business revenue in a competitive manner.

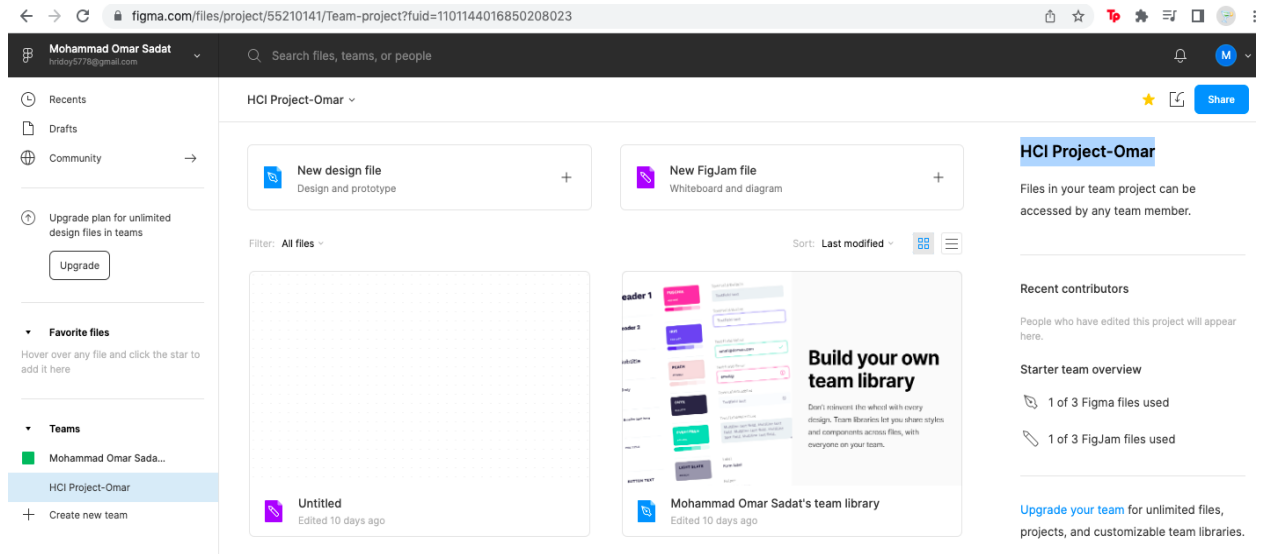
In these aspects, here I have mentioned the flow chart of the overall project flow , that will be followed during the time of interface designing and development.



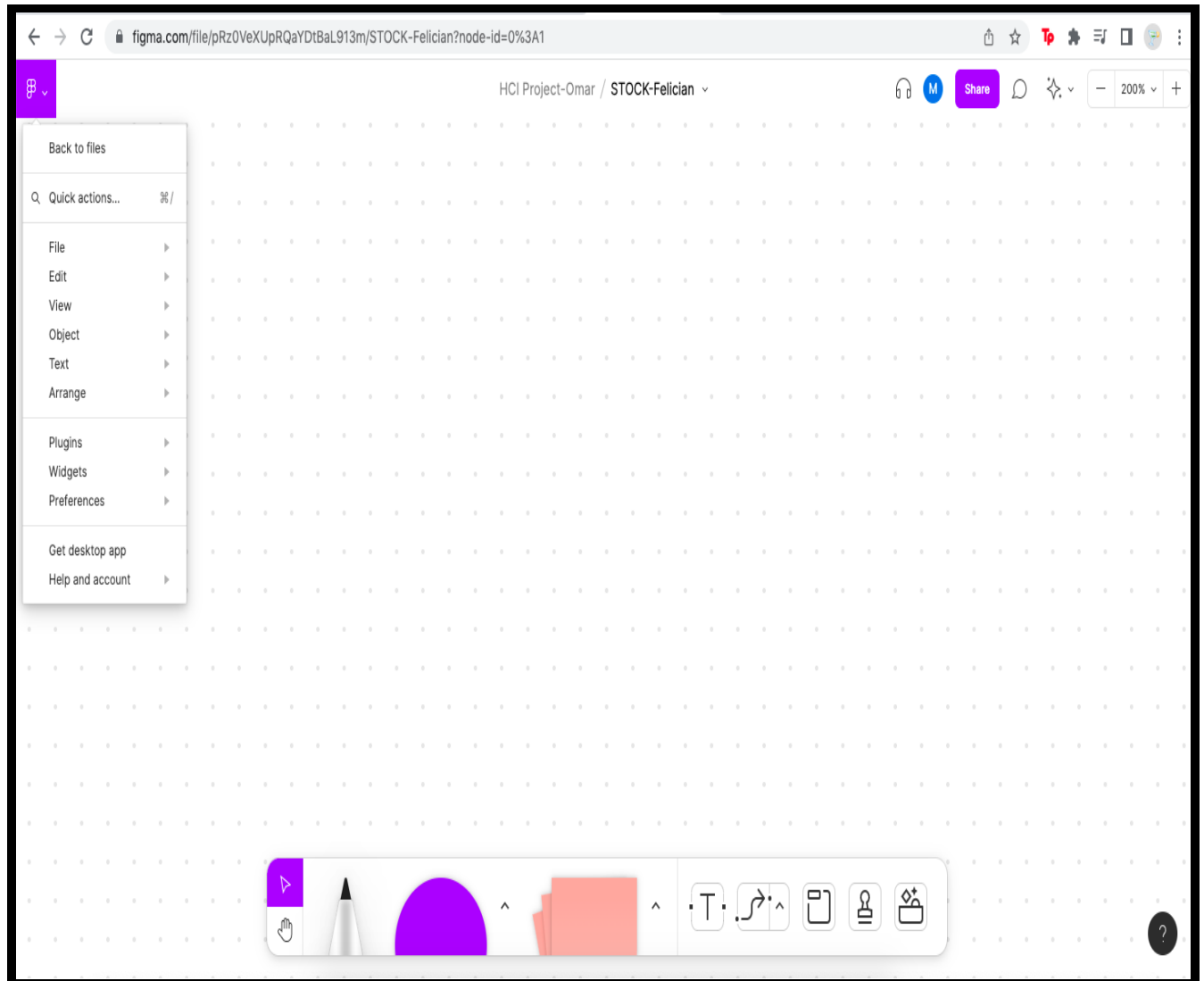
**Tools:**

In the whole project , we will use the **Figma software (online free edition)** to make the interactive project.

# Mohammad Omar Sadat



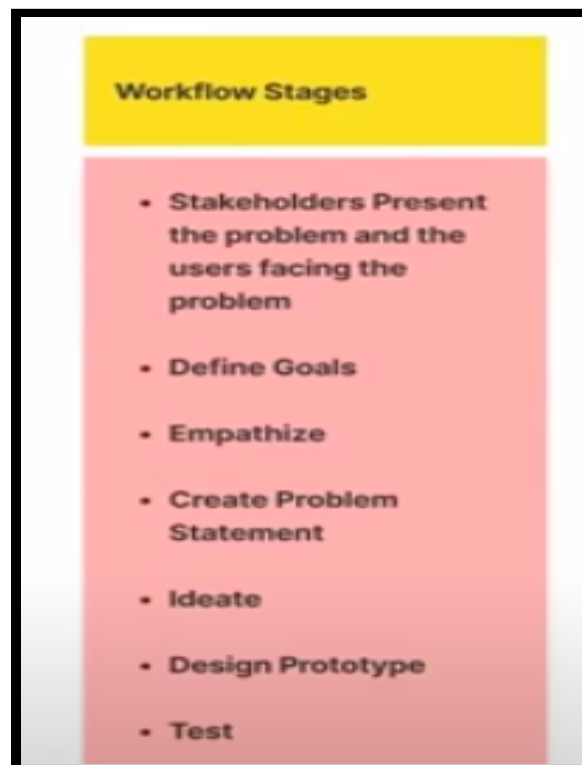
## Working Interface of Figma:



## Workflow Stages

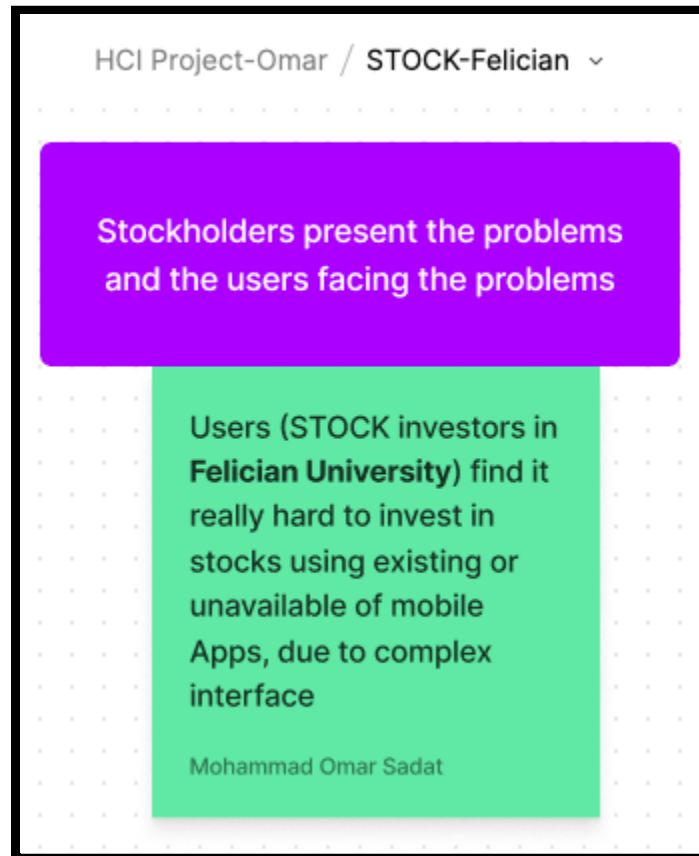
In the Figma workplace, I have created a figJam file , where I am going to create the workflow of the different stages which will be used to develop the interface of the Mobile App for stock trading.

1. In the first stage, the stockholders will present the problem , and the UX designers will develop the interface design to resolve the problem
2. In the Define goals stage, the stakeholders will define the business goals , aligned with the proposed Mobile Apps interface.
3. Creation of Problem Statement.
4. In the Ideate stage, the UX designers will ideate the designs of App's interface to meet the goals , defined by the stakeholders.
5. After the idea generation, I have started to design the prototype of a Mobile App using the Figma software.
6. After the development of Prototype, I am going to Test the developed Prototype as per the requirements of Stakeholders to enhance the business growth through customers satisfactions by using the Mobile Apps.



## Problem Presentation

In this stage , the investors of Felician University & the stakeholders will present the problem of the existing Mobile apps , which are used to trade the STOCKS.



## Define Goals

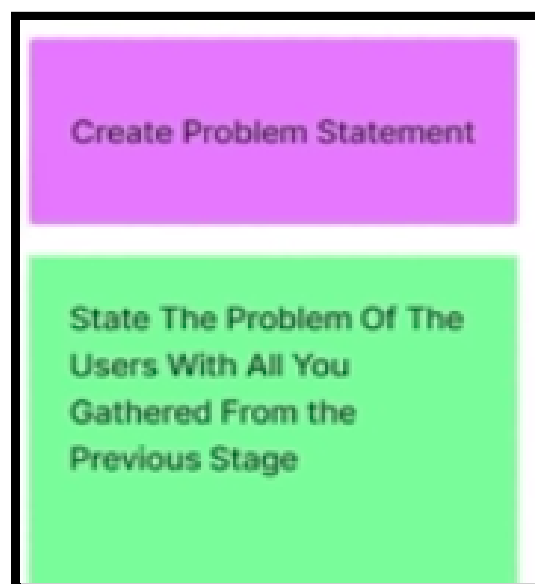




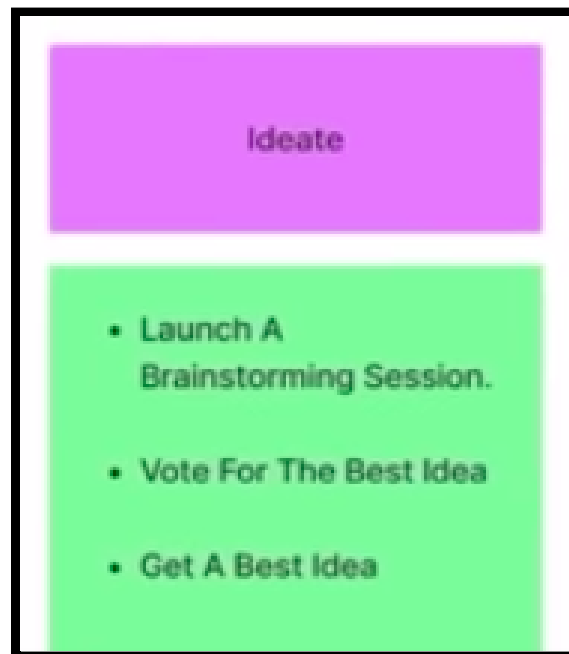
## Empathize



## Problem Statement



## Ideate



## Design Prototype



## Test Prototype



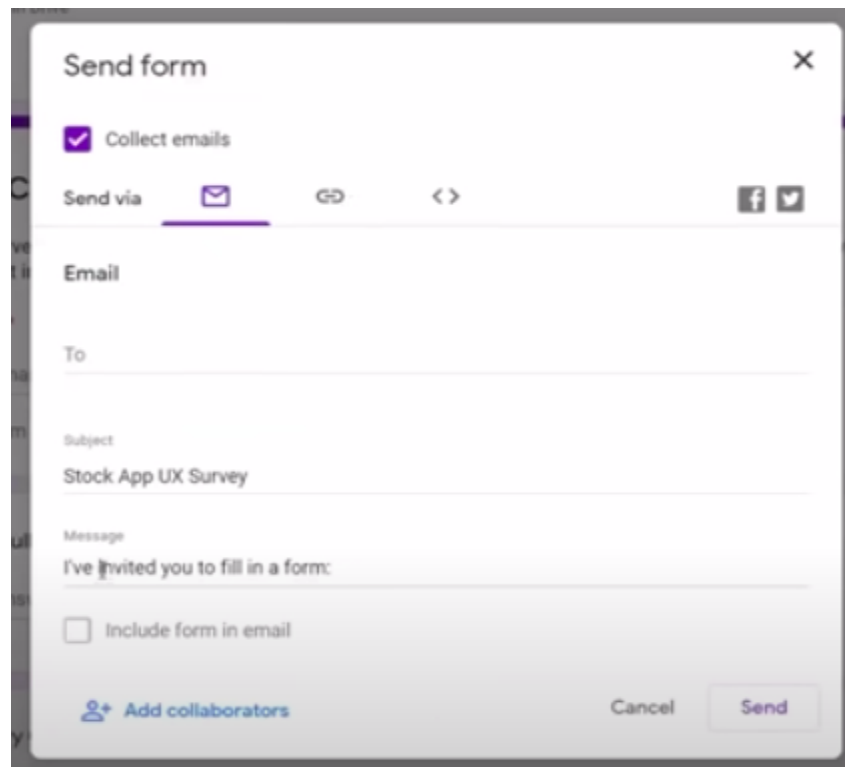
## Digital survey , using Google Forms

In order to get the User's expectations and problems with the existing App's, UX designers generally take Digital interviews to get the actual information. Here, I am using Google Form to get the interview done.

The screenshot shows a Google Forms interface for a survey titled "Felician Investor App UX Survey". The survey is currently in edit mode, as indicated by the "Questions" tab being active. A single question is visible, titled "Digital Face-To-Face Interview", which is a multiple-choice question with one option labeled "Option 1". The form is set against a light purple background. The browser's address bar shows the Google Forms URL, and the top of the browser window displays various tabs and the system clock.

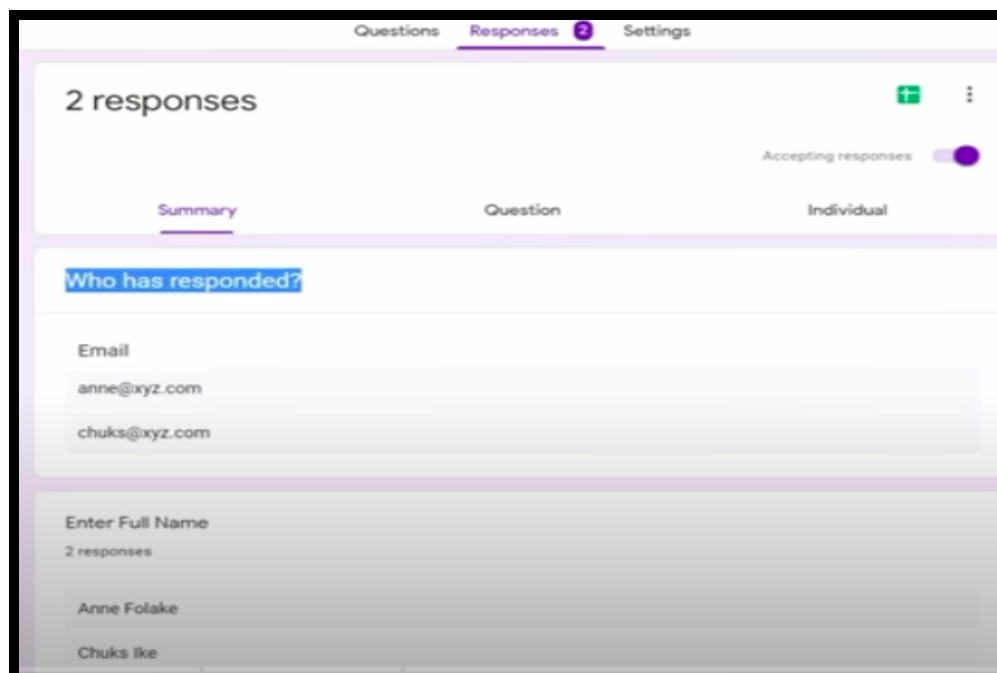
I have inserted this form in several questions , to get the actual information for development of the Apps interface.

## Sending Survey form



The screenshot shows a 'Send form' dialog box with a close button (X) in the top right corner. It has a checked checkbox for 'Collect emails'. Below this is a 'Send via' section with three tabs: 'Email' (selected), 'Gmail', and 'Link'. To the right of these tabs are social media icons for Facebook and Twitter. The 'Email' tab is active, showing fields for 'To', 'Subject' (pre-filled with 'Stock App UX Survey'), and 'Message' (pre-filled with 'I've invited you to fill in a form:'). There is an unchecked checkbox for 'Include form in email'. At the bottom, there is a link to 'Add collaborators', and 'Cancel' and 'Send' buttons.

In this phase, I am going to send emails with this form to the potential Investors of Felician University to get actual information regarding the existing App's problems and their expectations from the new Apps interface. I can see the responses from Google interface too.

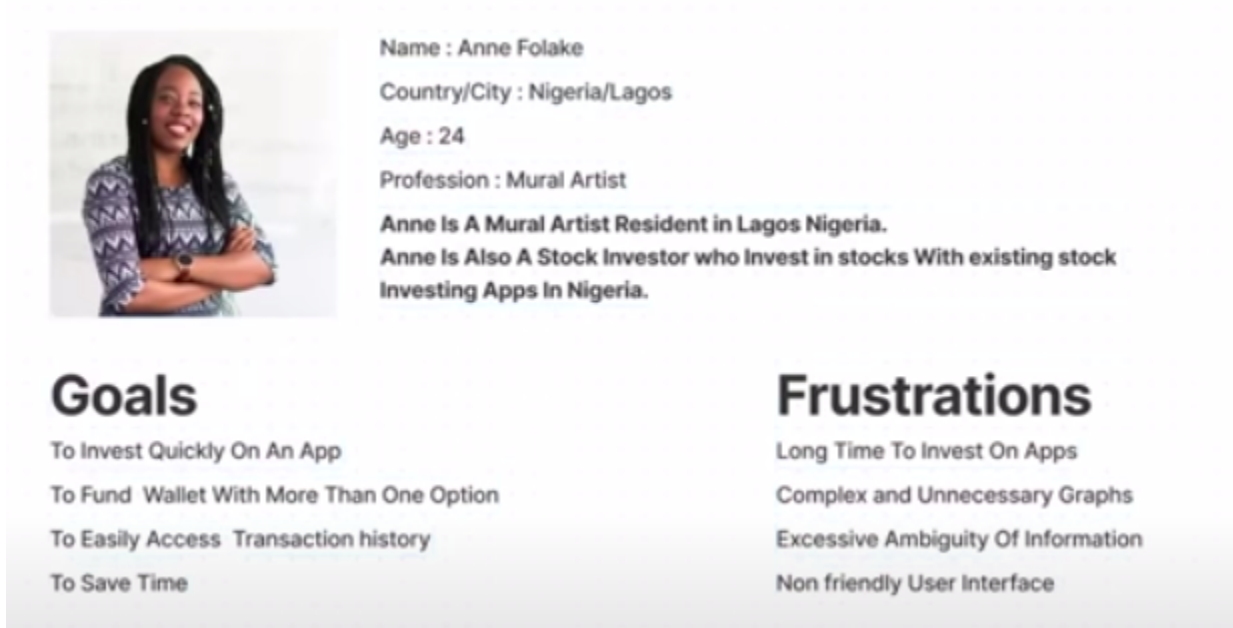


The screenshot shows the 'Responses' tab of a Google Form. At the top, there are tabs for 'Questions', 'Responses' (selected), and 'Settings'. Below the tabs, it says '2 responses'. There is a green plus icon and a three-dot menu icon. A toggle switch for 'Accepting responses' is turned on. Below this are three tabs: 'Summary' (selected), 'Question', and 'Individual'. Under the 'Summary' tab, there is a section titled 'Who has responded?' with a blue highlight. Below this, there is a list of email addresses: 'anne@xyz.com' and 'chuks@xyz.com'. At the bottom, there is a section titled 'Enter Full Name' with the text '2 responses'. Below this, there are two names: 'Anne Folake' and 'Chuks Ike'.

## User Personas:

In this phase, I am going to segregate the user's preferences as per the Data I got from the Google forms, by using Google Data Studio.

**[Below provided Data is completely imaginary, this information is not related to anyone in Felician University & people of USA at any means ]**



A user persona card for Anne Folake. It features a portrait of a smiling woman with long dark hair and a patterned top. To the right of the portrait, her details are listed: Name: Anne Folake, Country/City: Nigeria/Lagos, Age: 24, Profession: Mural Artist. Below this, a short bio states: 'Anne Is A Mural Artist Resident in Lagos Nigeria. Anne Is Also A Stock Investor who invest in stocks With existing stock Investing Apps In Nigeria.' The card is divided into two main sections at the bottom: 'Goals' and 'Frustrations'. The 'Goals' section lists four points: 'To Invest Quickly On An App', 'To Fund Wallet With More Than One Option', 'To Easily Access Transaction history', and 'To Save Time'. The 'Frustrations' section lists four points: 'Long Time To Invest On Apps', 'Complex and Unnecessary Graphs', 'Excessive Ambiguity Of Information', and 'Non friendly User Interface'.

**Name :** Anne Folake  
**Country/City :** Nigeria/Lagos  
**Age :** 24  
**Profession :** Mural Artist

**Anne Is A Mural Artist Resident in Lagos Nigeria.  
Anne Is Also A Stock Investor who invest in stocks With existing stock  
Investing Apps In Nigeria.**

### Goals

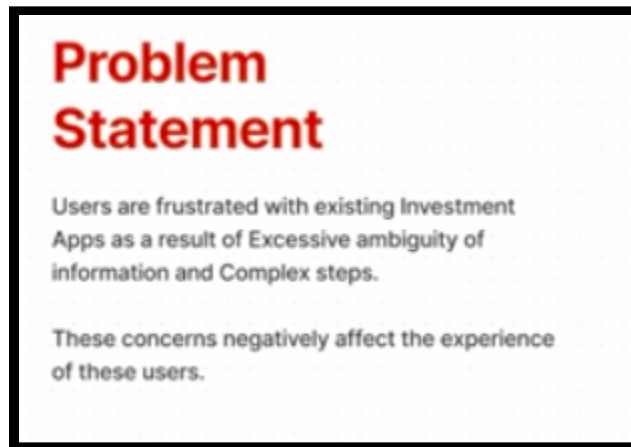
- To Invest Quickly On An App
- To Fund Wallet With More Than One Option
- To Easily Access Transaction history
- To Save Time

### Frustrations

- Long Time To Invest On Apps
- Complex and Unnecessary Graphs
- Excessive Ambiguity Of Information
- Non friendly User Interface

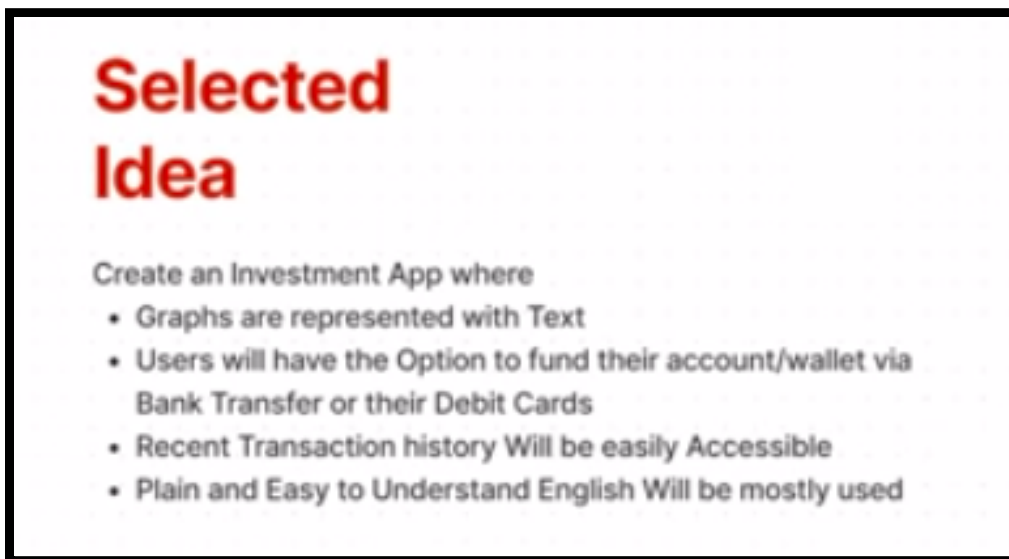
From these user personas , I am going to create the problem statement which will be used by the UX designers to create the User Interface , to resolve the existing Mobile App's problems and by this manner , the stakeholders will achieve the business goals through investors/ customers satisfactions.

## **Problem Statement**



## **Ideat : Selected Ideas**

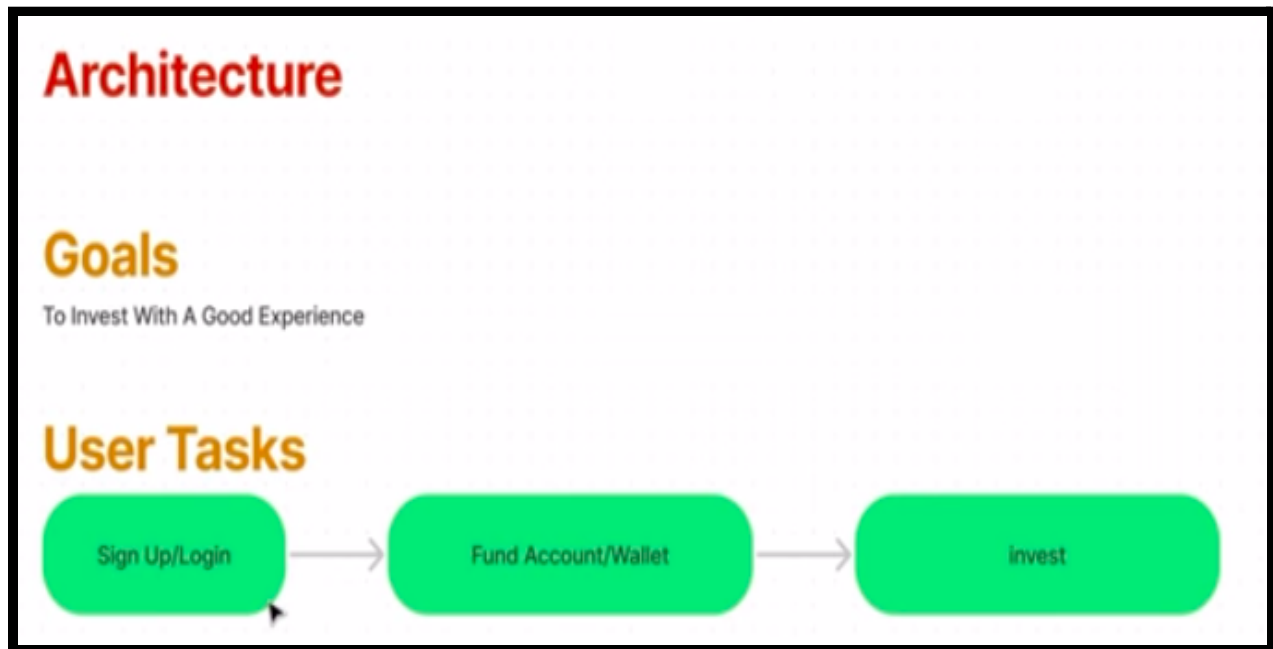
If I concentrate on the selected idea, It's come to know me that the selected ideas are going to solve the problems that I noticed in Problem Statement, that has been extracted from the digital surveys.



### Information Architecture :

In this process, I have decided about the information that will be placed in every page of the Mobile App so that Users can easily use the Apps to make the transactions of Investment. The information has to be in such a manner, that users will not face the same difficulties as they faced with the previous Apps.

It will be a combination of Users goals and the relevant tasks that will be incorporated with the proposed mobile App.

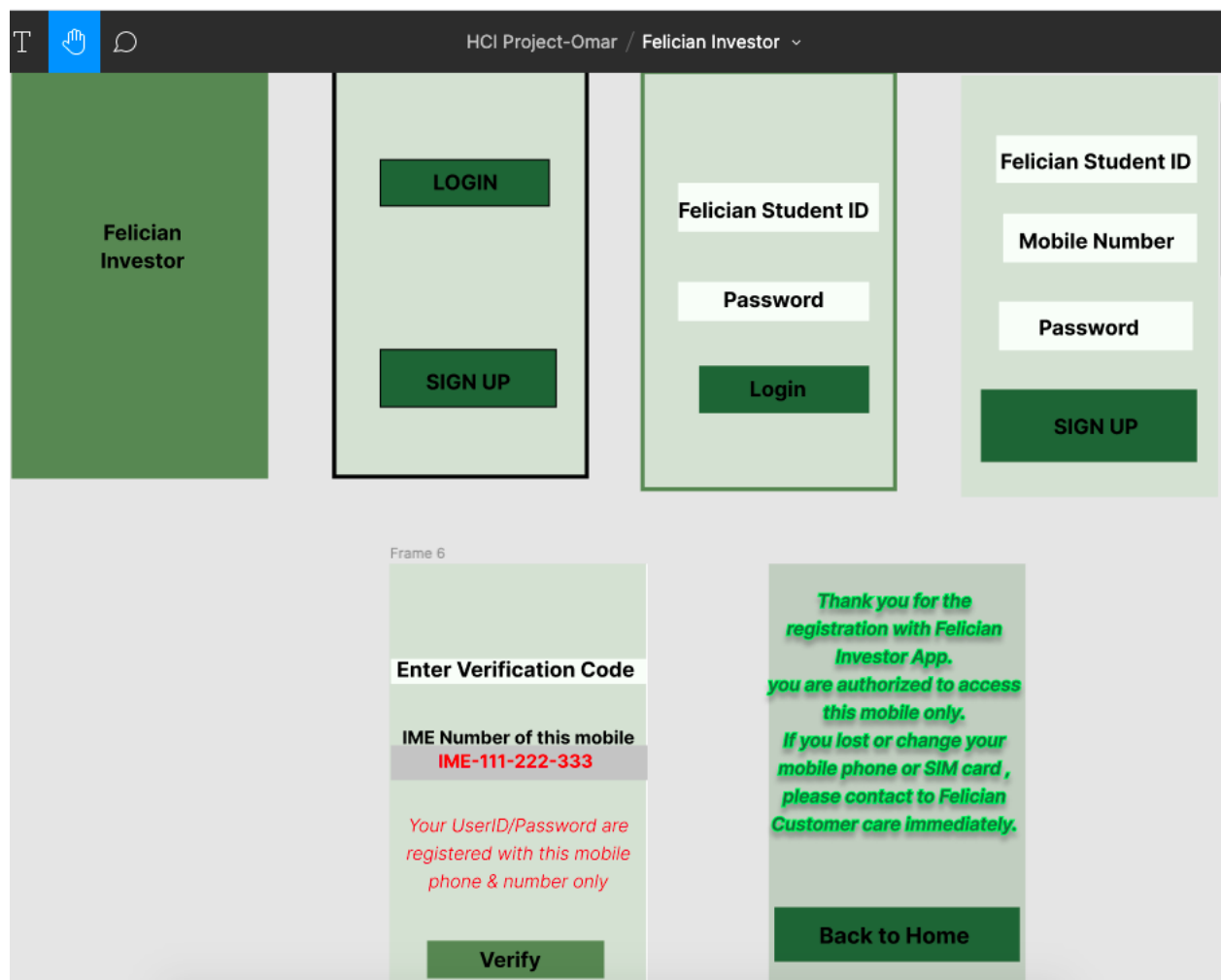


After creating all conceptual designs in Figjam file, now its time to create a Design File in order to develop the practical Interface Prototype, where I will show the original interactive clicks event.

*As I am using the Free Edition of Figma, here is a restriction of maximum 3 pages. So, I will create all interfaces of my developed Mobile Apps, within the 3 pages.*

*To match this limitations of free edition, I will segregate the designs of all mobile App's interfaces in 3 task categories*

1. *Sign UP/ Login*
2. *Fund Account / Wallet*
3. *Invest*



The above are the screens that will be used for the interfaces during the time of authentications for the FELICIAN STOCK Apps.



### **Security Feature:**

During the time of registration, the legitimate user's mobile IME number will automatically be fetched and stored in the Database with its respective Felician User ID & Password. So, apart from the OTP (one time password) during the time of registration, there are the 2 factor authentication features included which will be checked in each & every time the user is going to make a successful login in this App.

2 factor of authentications will be worked in given manner:

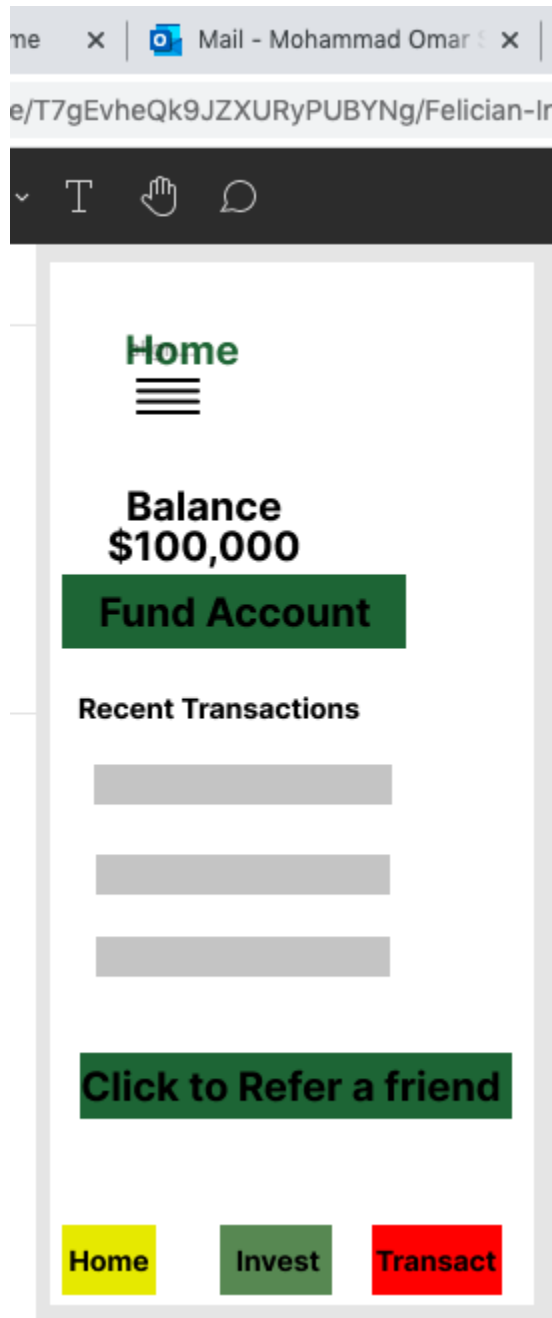
1. User ID & Password
2. Authenticated & registered mobile phone only.

If the registered user will change his/her mobile phone or accidentally his/her mobile phone being lost or damaged, then he/she needs to contact immediately to Felician Contact Center to make new registration and block the previous IME with its associated User ID & Password.

After creation of User ID/ Sign UP , users will be forwarded the Successful Registration screen where he/she will be informed regarding their successful registrations and the necessary steps that need to take if there will be any mishaps or incidents.

There is also a Button in this screen where users can move to the Homepage of the applications. The Home page will only appear in the Mobile screen , once the user can perform a successful login.

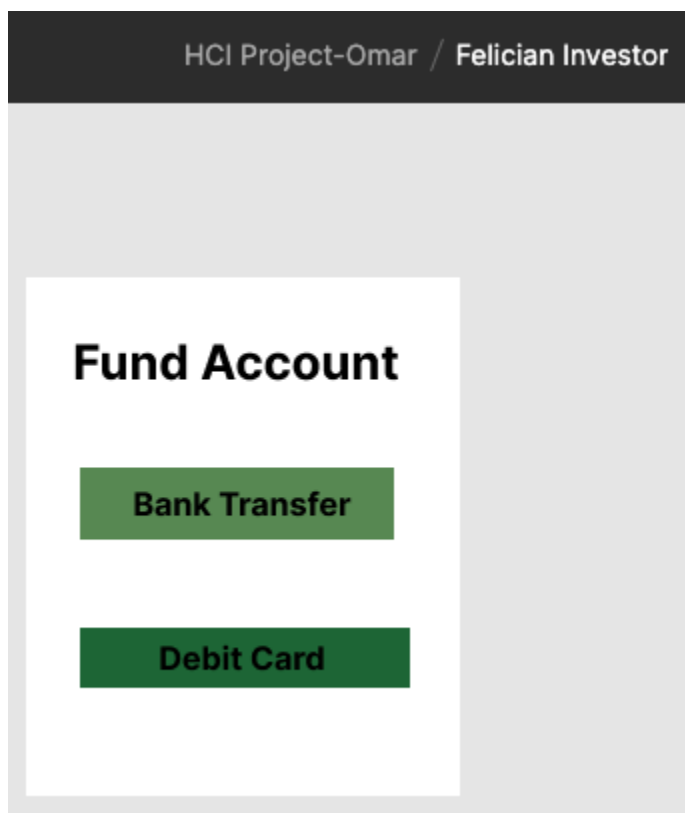
### HOME Page:



After successful login, the user will move to the Home Page.. There will be menu to navigate the whole Mobile Apps and there are some basic displays in this screen.

1. Below the menu, it will show the available balance to make any Investment & to do any buy / sell transactions.
2. From the Fund Account button, the user is allowed to fund his/her account from Bank transfer and/or Debit Card.
3. There is a pane for displaying the list of recent Transactions.
4. From this page, the user can refer the link of this Mobile Apps to any friend in order to invite him/her to use it.
5. At the end of this screen, there is a Navigation pane which could be used for navigating the whole Apps , for its utilizations.

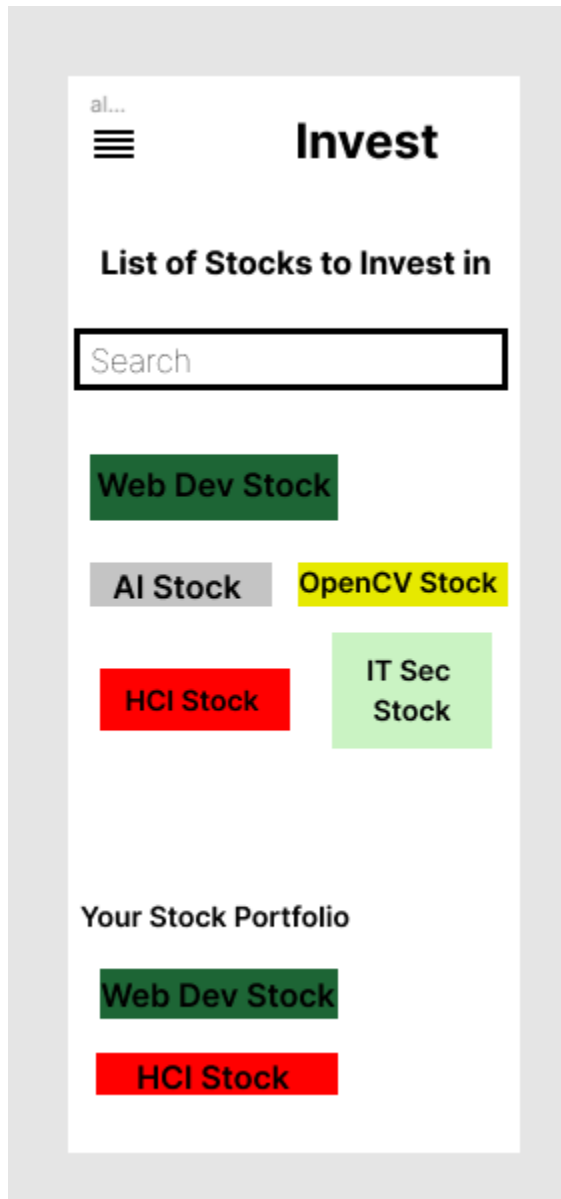
### Fund Account



There will be two ways to fund your account. Either I can fund your account by using Bank Transfer or I can use Debit Card to fund my Account to make investments and other transactions.

From the Invest Screen, I can select the Stock to whom I am interested to invest.

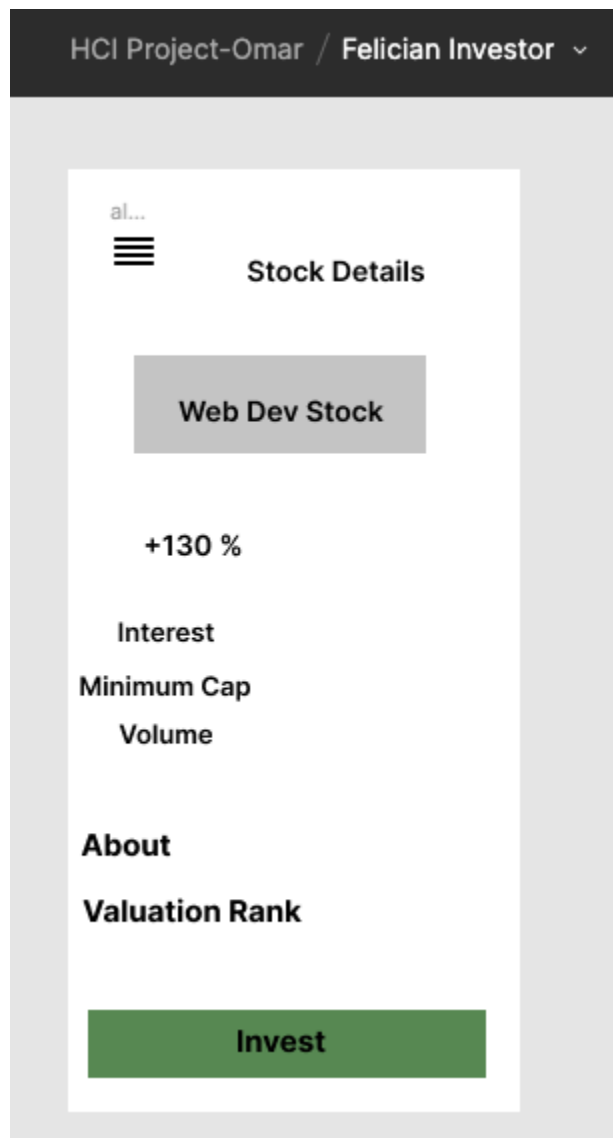
## Invest Screen



In the search bar, the users are allowed to search the name of the stocks company to whom he/ she is interested to invest.

In the pane of stock Portfolio, the User is allowed to see the list of Stocks that he/ she has already invested.

From the below screen, user's can see the details of the Stock to make the decisions before the investment.



After the information getting phase, Users now should click on Invest button to make the investment process further.

al...  
☰ **Stock Details**

Web Dev Stock

+130%

Enter Amount

Next

Users need to input the amount, that he/ she is interested to invest on the particular stock.

al...  
☰ **Stock Details**

Web Dev Stock

130 %

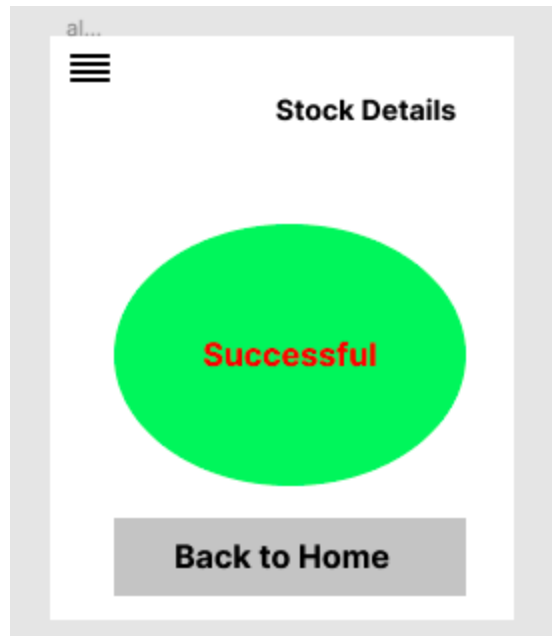
Amount \$2000

Minimum Cap 332

Interest 7 %

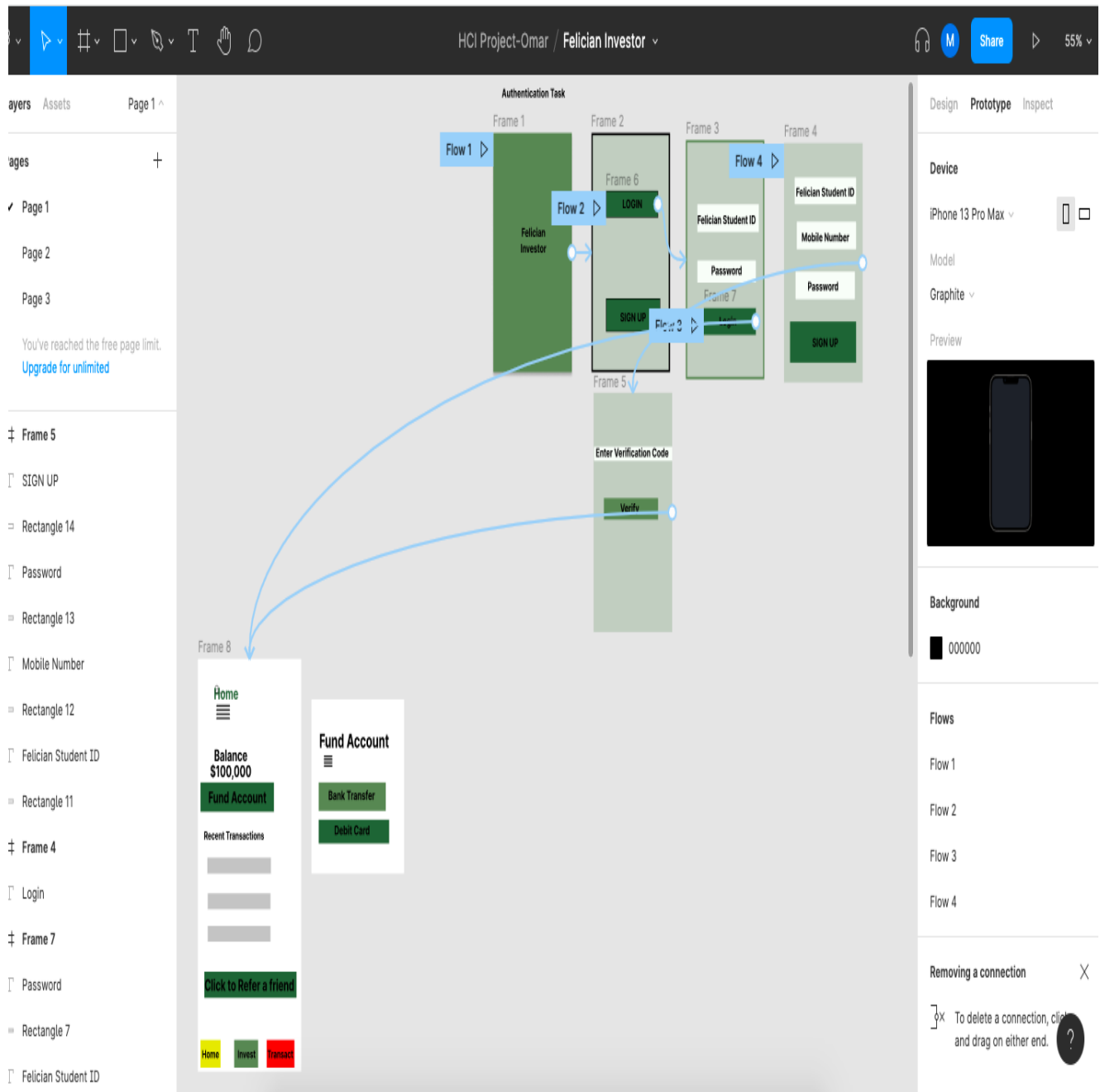
Proceed

User needs to tap on Proceed Button to make the investment event successful



This screen represents that User has made his/her investment transaction successfully.

## Creation of Prototype in Authentication & display of 1st Screen



In the click workflow, Users can be in Two (2) categories. Either the existing users or the New Users.

If the New Users, they have to register themselves before login. In order to make the successful login, Users need to enter the Felician User ID, Password & a mobile number. A verification code will be sent to the mobile number to verify the legitimacy of the registered users.



If the user is the existing user, they don't need to register again, they just need to give their Felician User ID & Password to make the successful login.

### Fund Account:

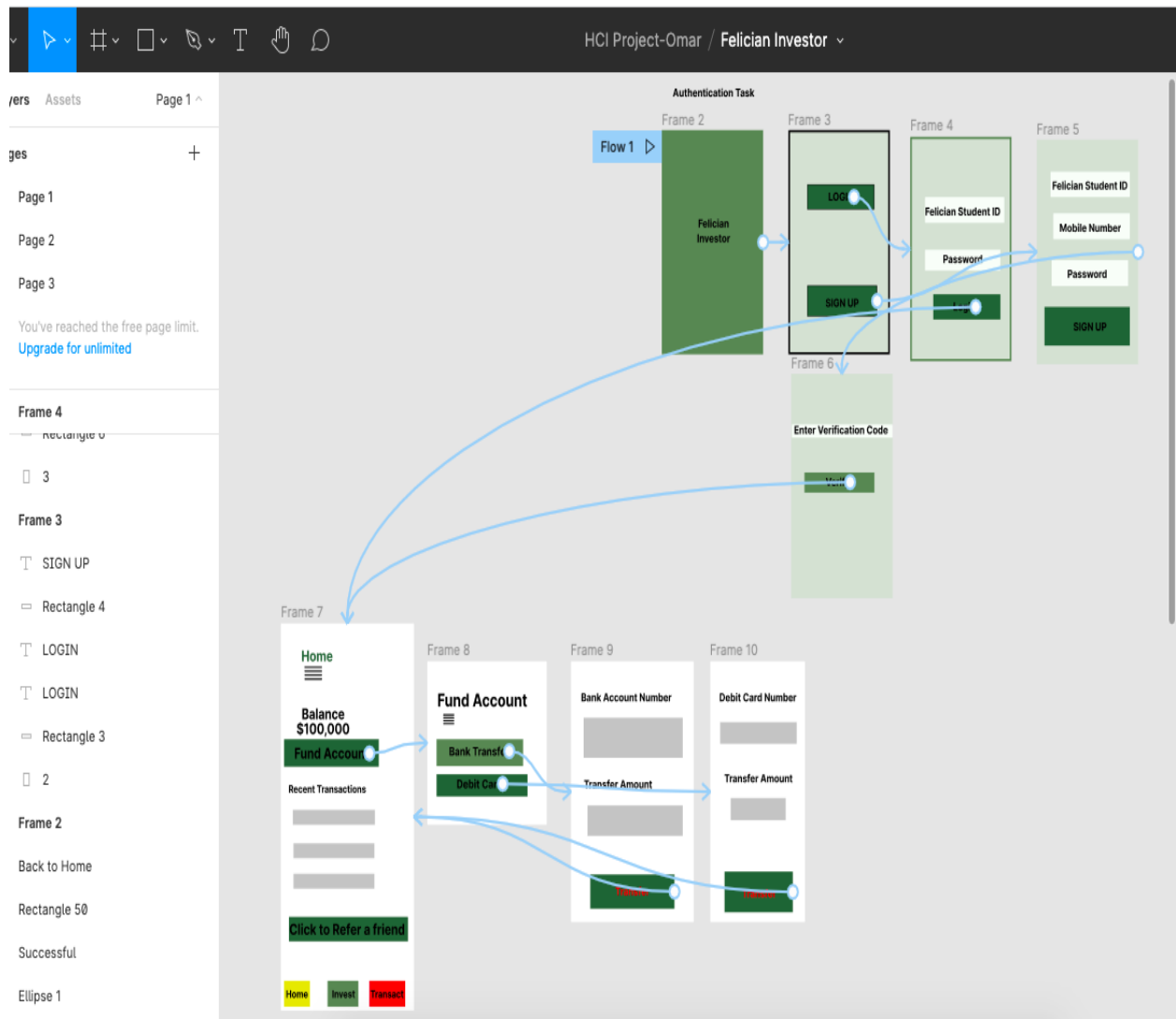
There are two options available in this Apps, to Fund the Account. To make any Transactions or any type of investment in to any Stock, users have to fund his/ her account first.

*[As credit card is difficult for students, in this Apps, only funding from Debit Card option is available]*

The image displays three sequential frames of a mobile application interface for funding an account.

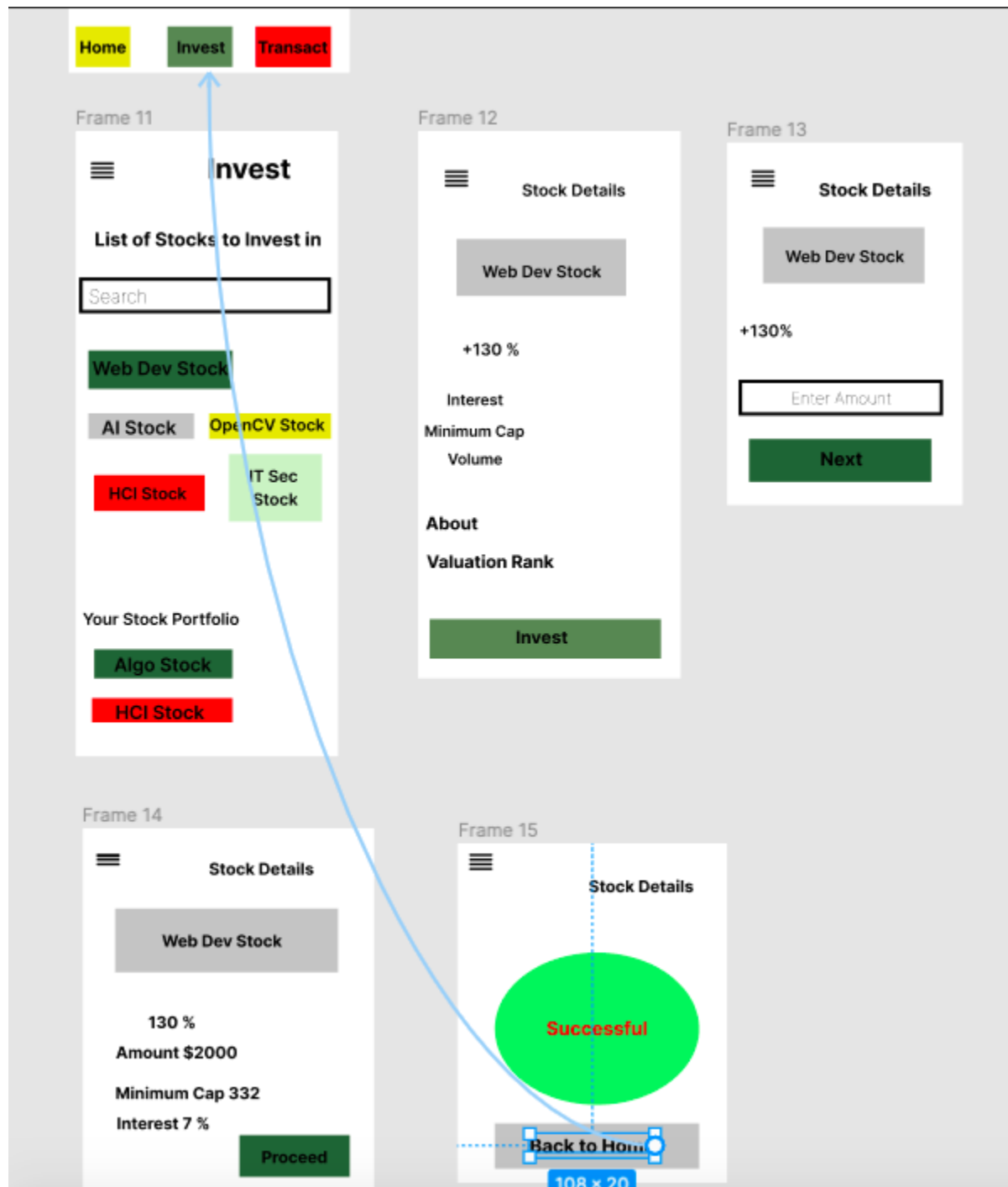
- Frame 8:** Titled "Fund Account", it features a hamburger menu icon and two green buttons: "Bank Transfer" and "Debit Card".
- Frame 9:** This frame is for the "Bank Transfer" option. It contains a label "Bank Account Number" above a grey input field, a label "Transfer Amount" above another grey input field, and a green button labeled "Transfer" at the bottom.
- Frame 10:** This frame is for the "Debit Card" option. It contains a label "Debit Card Number" above a grey input field, a label "Transfer Amount" above another grey input field, and a green button labeled "Transfer" at the bottom.

Overall Process events from a **Account Creation and Successful login to account Funding through either Debit Card or Bank Account Transfer**



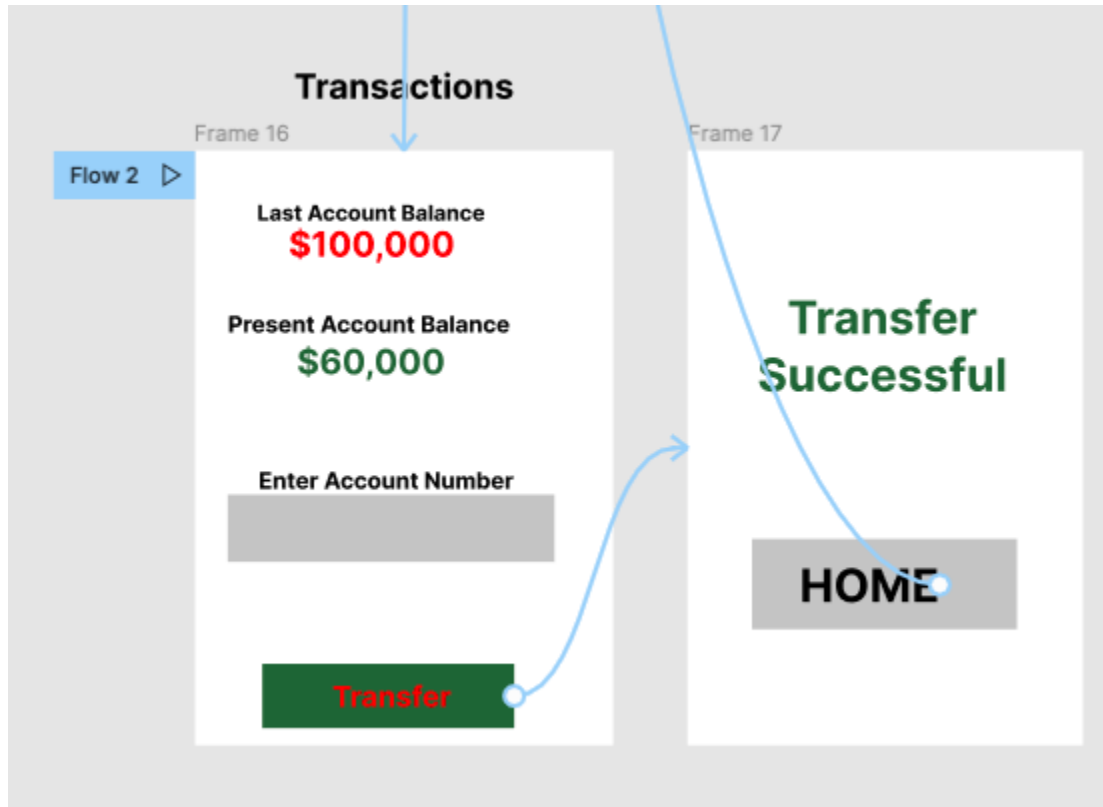
## Investment Part of the Application

The next very important task, after funding the Account is make the investment in to the preferred STOCK. Here is the screenshot of that task:



### Transaction:

After the successful investment, one can transfer the amount to his/her personal Account which he/ she earns or loss.



After the transfer, the previous & present Account Balance will be updated accordingly.

### Conclusion :

This is a demo for the Mobile App's interface of a Stock Trading for the students of Felician University. Other's features & functionalities will be incorporated as required upon approval from Prof Dr Songmei Yu...

**Thanks & Regards**  
**Mohammad Omar Sadat**  
**Student of MSc Computer Science**  
**Felician University**