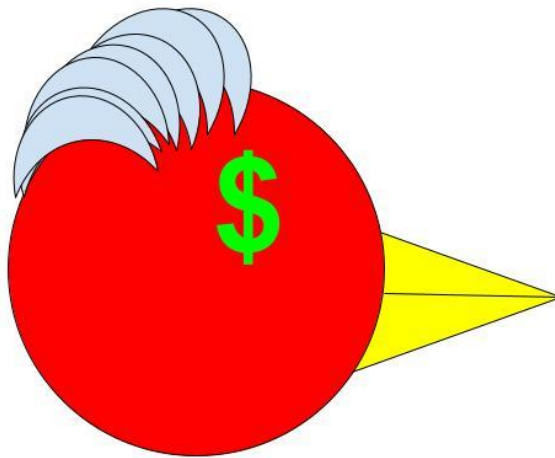


Screen Sketches

Team MS_316

Nick Kokott, Skyler Kutsch, Shiv Patel, Josh Whittington

Birdie Bucks



Users + Functionality

Guest

- Can view login screen/homepage/tutorial
- Can view Stocks but not “purchase” or “trade”
- Can sign up for an account

Standard User

- All permissions as guest
- Has possession over a personalized account with these permissions:
 - Username + Password
 - Ability to create lists/portfolio
 - Ability to “buy” and “trade” stocks.
 - Able to add “funds”
 - Able to create a group
 - Can upgrade to an admin account if the head of the group

Administrator

- All permissions as a standard user
- Able to control and manage a select group of standard users
 - Can name/rename group
 - Can delete group
 - Can share group/create invite link
 - Can add/remove members
 - Can add/remove stocks and companies

Dev

- All permissions as an admin user
- Has access to everything (database, code, etc.)
 - Can update the app (interface/code)
 - Can manage all users

Non-Functional Requirements

IN PRIORITY ORDER (Can order later)

- The application needs to be responsive within 10 second for the stocks to be able to change basically real time. This is so that “real time” trading can actually happen within our application. Users should be able to see near immediate change in their stocks as the day progresses.
- The application must support a minimum of 100 active users. We want this application to be competitive and for as many people as possible to be able to view, buy, and trade stocks. Allowing this application to be used by as many people as possible allows for our application to compete with other similar applications on the market.
- The application must be smaller than 500 MB. We want the application to work very well with a small limited amount of space actually needed on the phone.
- The application needs to work with multiple screen sizes. This is very important because many users have different phones that come with different screen sizes and resolutions. Making sure that all users are able to view the application without an issue is integral to the system that we are trying to run for the users.
- The application must keep passwords and card information secure and private. This is very important because without security of these pieces of information, hackers and people with malicious intent can easily access and use this information for whatever they want. We want users to feel safe and secure using the application, not worried about how their data is stored in the system.

Tables and Fields

User: Tracks information about a user's account

User Id - Primary Key

File id Foreign key to File table

Username

User email

User privacy settings

Hashed Password

Stocks for that user

File - Portfolio/Group: Saved portfolios and groups of people

File Id - Primary Key

File Name

Owner - Foreign Key to User Table

Permission: Determines which level of access a user has to application

Permission id Primary Key

User Id foreign key to User table

File Id foreign Key

Privileges: Tells which permissions the user actually has.

Privilege Id Primary Key

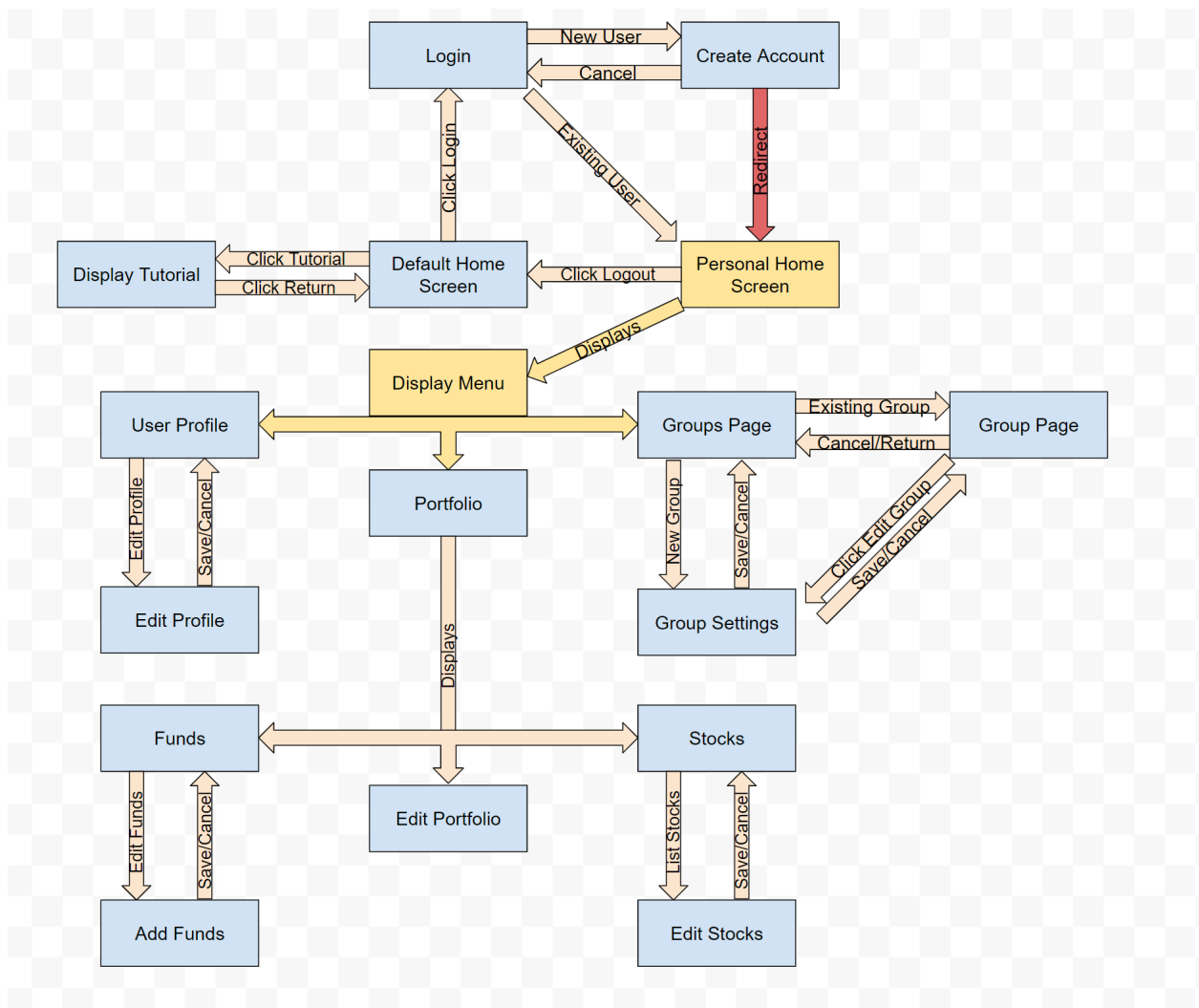
User Id foreign key to User table

Permission id foreign key to permission table

Privilege the user has

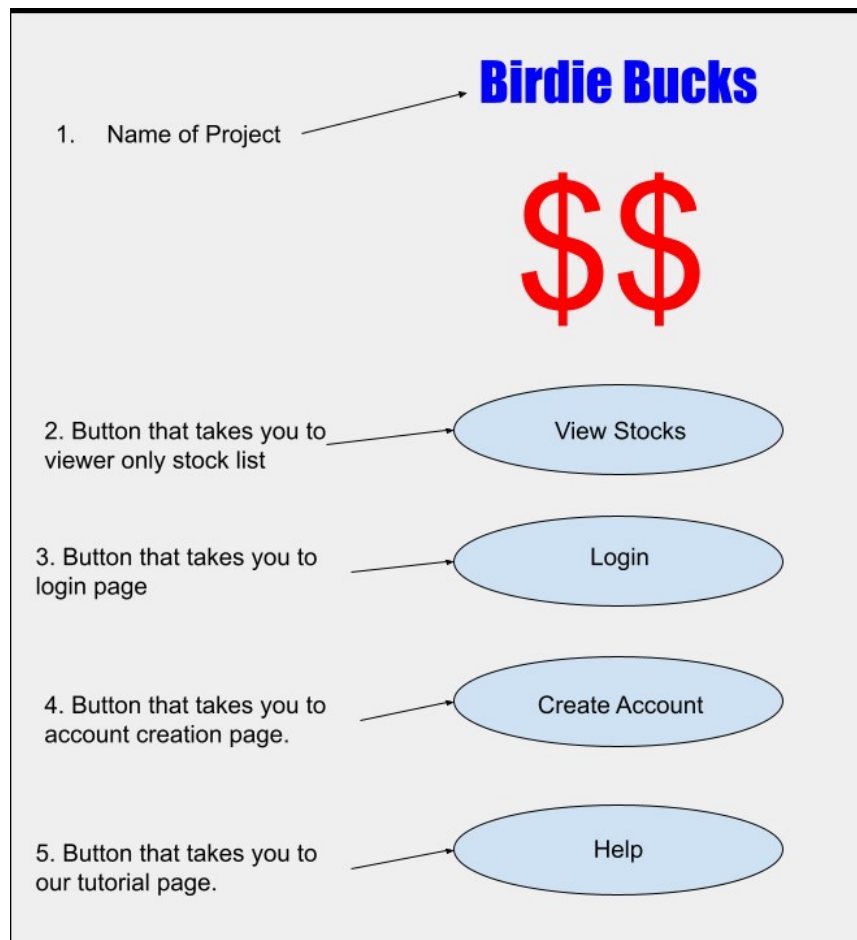
Date granted

Screen Flow



Home Page of Birdie Bucks

Nicholas Kokott

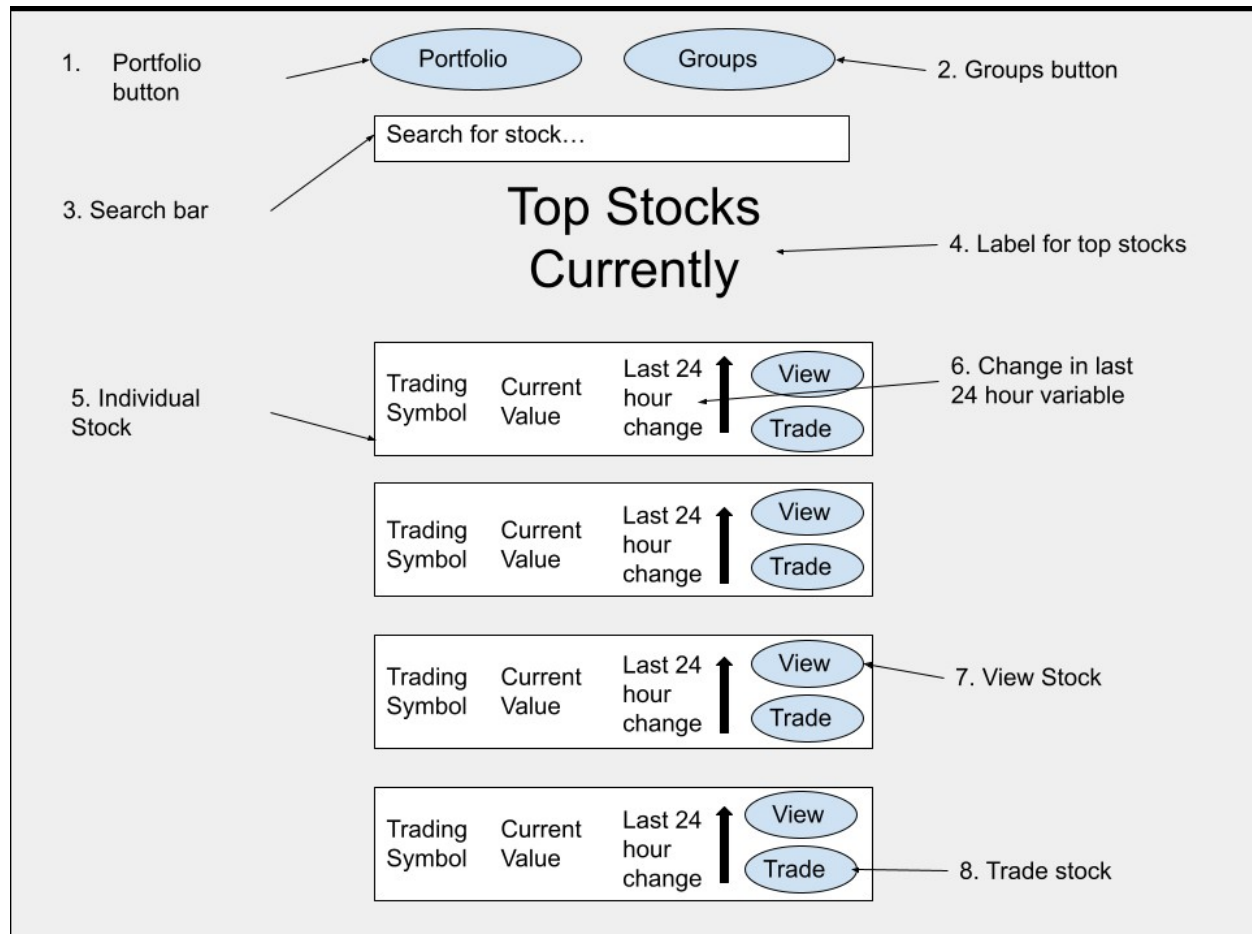


This screen is going to be what all our users see when they open the app for the first time. It has several buttons that users can select from that will take them to different screens within the application. The page is structured this way so that users will be inclined to view the stocks right away and look at companies that they are interested in. From there they will be inclined to make an account and trade for those stocks that they are interested in.

The screen allows for the user to see the project name (1), take the users to the stock viewing page (2), take the users to the login page (3), take the user to the account creation page (4), and take the user to the tutorial page for how to use the app (5). All of these buttons that take the user to different pages will be fully functional for the user and take them to where they are looking to go quickly and efficiently.

Stock List Page

Nicholas Kokott

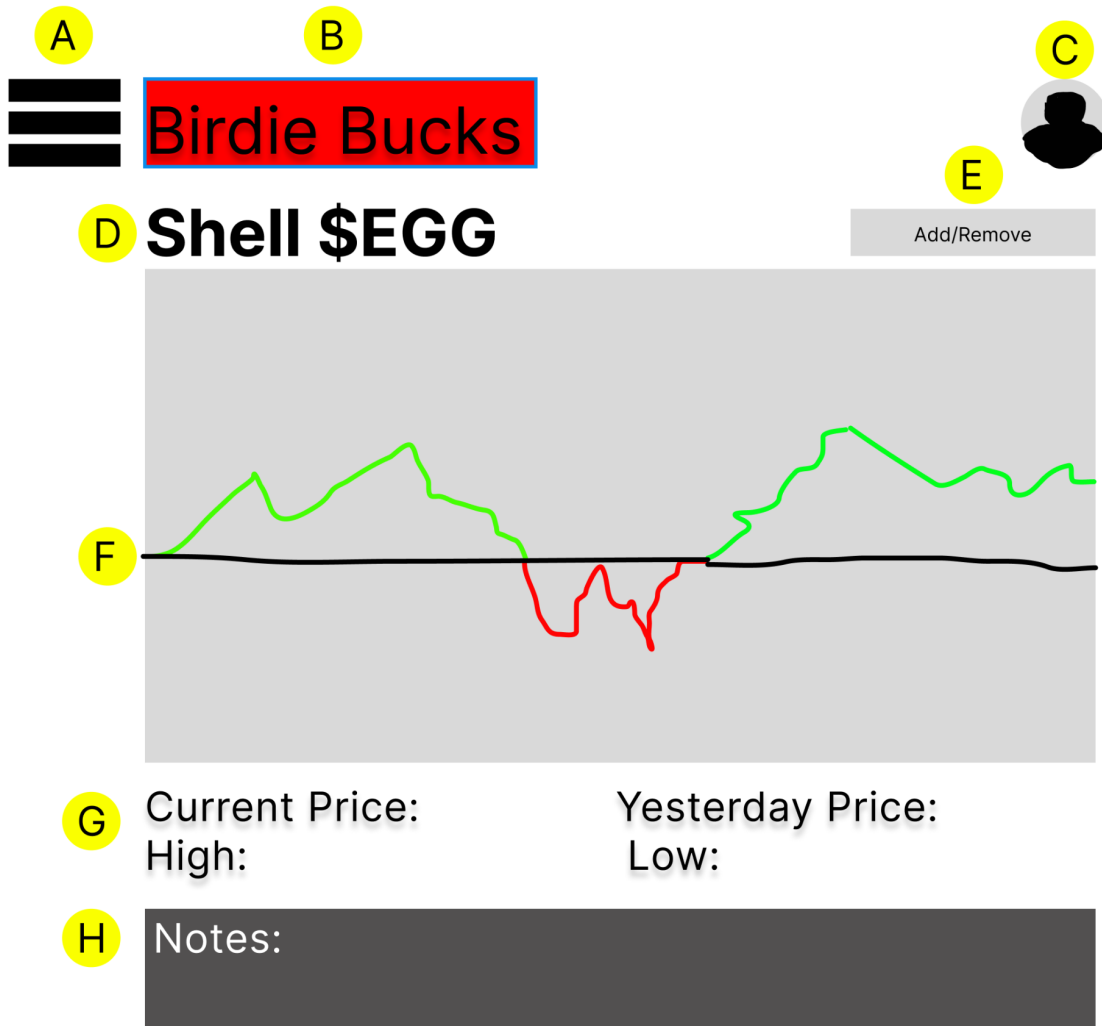


This screen is going to be what the user sees when they click on the view stocks button on the home page, or the first thing they see after making their account. The screen prompts the user to view their portfolio or the groups that they are in. Secondly it prompts the user to search for any stocks they are interested in with the search bar. From there users will see the current top stocks if they don't know what stock they are looking for. The user will be able to scroll through around 20-30 of the top stocks before the page actually stops.

The screen allows the user to click on the portfolio button (1), which allows them to view all stocks they currently have to their name unless they are not logged in. If the user is not logged in this button brings the user to the create account page. Similarly the groups button (2) allows the user to see groups they are in with other people. If they are not logged in this button brings the user to the create account page. As well as these buttons there is a search bar (3) that will allow users to type in companies they are interested in investing in. They can search for either the company's name or trading symbol. There is a label (4) that tells the user which stocks are currently at the highest price and doing the best. As well as this there is a list of

stocks that can be identified individually by their own box (5). These individual stocks tell the trading symbol, current value, and change the stock (6) has had in the last 24 hours. The arrow next to it will point up if the value has gone up, and down if the value has decreased. As well as this there are two buttons on each individual stock. The view button (7) will take the user to that stock's dedicated page and show more details about that stock. The trade button (8) will take the user to a trading page, where the user can either sell that stock if they have it or purchase stock.

Default Stock Page



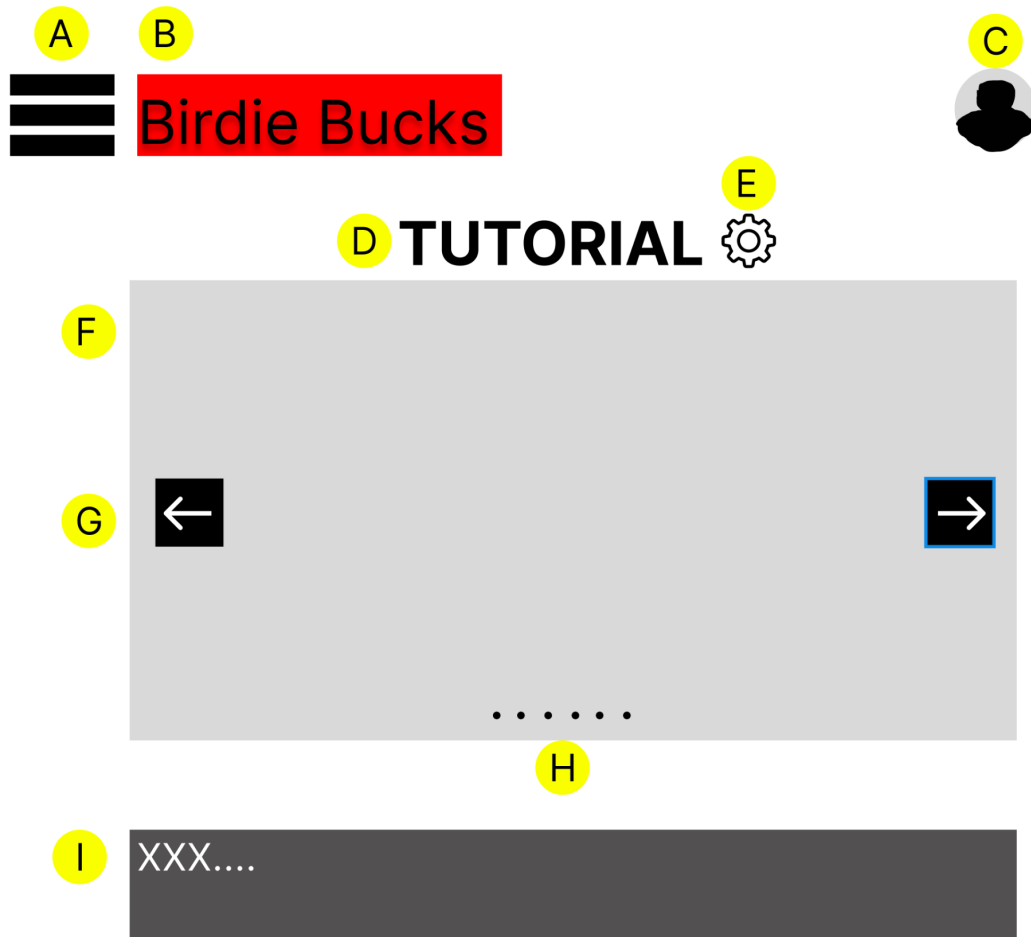
This screen allows members to view a specific stock. It displays helpful information regarding the stock, along with ability to add/remove the stock. Space for personal notes, and has different options to browse different areas of the app.

Interface Items:

- A - Dropdown Option Menu. Clicking on it will display different menu options
- B - Title with Logo. Clicking anywhere inside the box will redirect you back to the Home Page
- C - User Icon. Clicking anywhere on the icon will redirect you to your profile page
- D - Displays the current stock
- E - Button that allows the user to add/remove the stock to their list
- F - A graph that allows the user to monitor stock price (Can be interactive)
- G - Displays current and previous stats of the stock
- H - A text box that allows the user to make personal notes

Josh Whittington

Tutorial Page



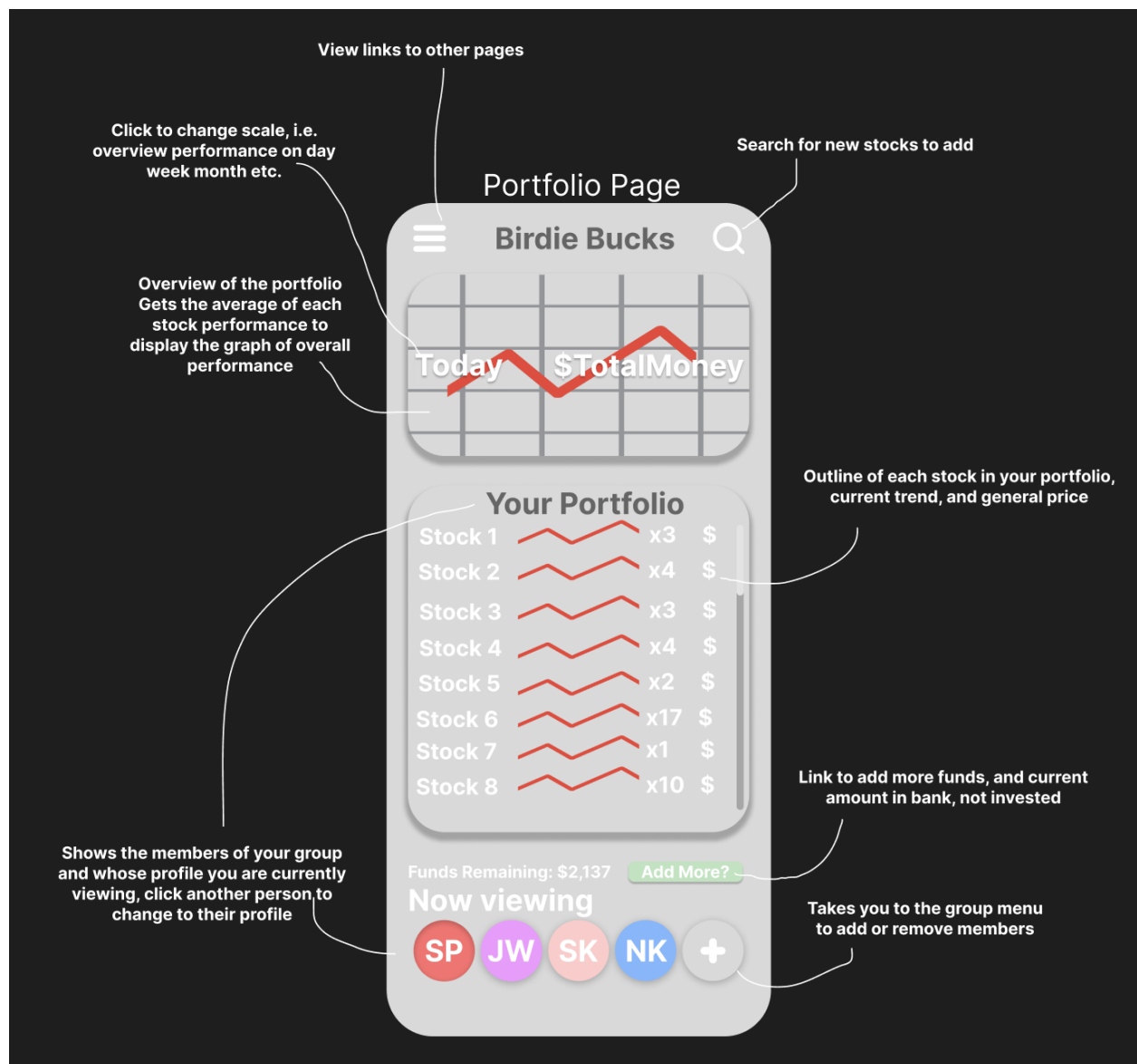
This screen allows any user to view/interact with a tutorial. It displays helpful information regarding where to start. It also has a settings menu which caters to users and allows them to customize their learning experience. Has multiple options to browse different areas of the app.

Interface Items:

- A - Dropdown Option Menu. Clicking on it will display different menu options
- B - Title with Logo. Clicking anywhere inside the box will redirect you back to the Home Page
- C - User Icon. Clicking anywhere on the icon will redirect you to your profile page
- D - Text box displaying "Tutorial"
- E - Button that allows the user to change tutorial display (Interactive, Automatic Scroll On/Off)
- F - Tutorial Content (In the form of Diagrams and Images)
- G - Arrow buttons that allow horizontal flow of the tutorial (Can be enabled/disabled from E)
- H - A button/indicator that shows the user their progress. Clicking can move the carousel forward/backwards. (Can be enabled/disabled from E)
- I - A textbox displaying detailed instructions/guidance

Josh Whittington

Portfolio List



The portfolio page is where users and administrators can view the stocks that they have purchased, and the current trends of the stocks. You can also view other members of your group's portfolios on this same page to compare and contest each other's gains and percentages. In your portfolio list, you can scroll through a line by line stat of what the stock's name is on the left, a quick outline overview graph of the current performance, without much details about numbers and time scale. The quantity of the stock that you have in your portfolio, along with the price/percentage of that stock. At the top section, users can see their

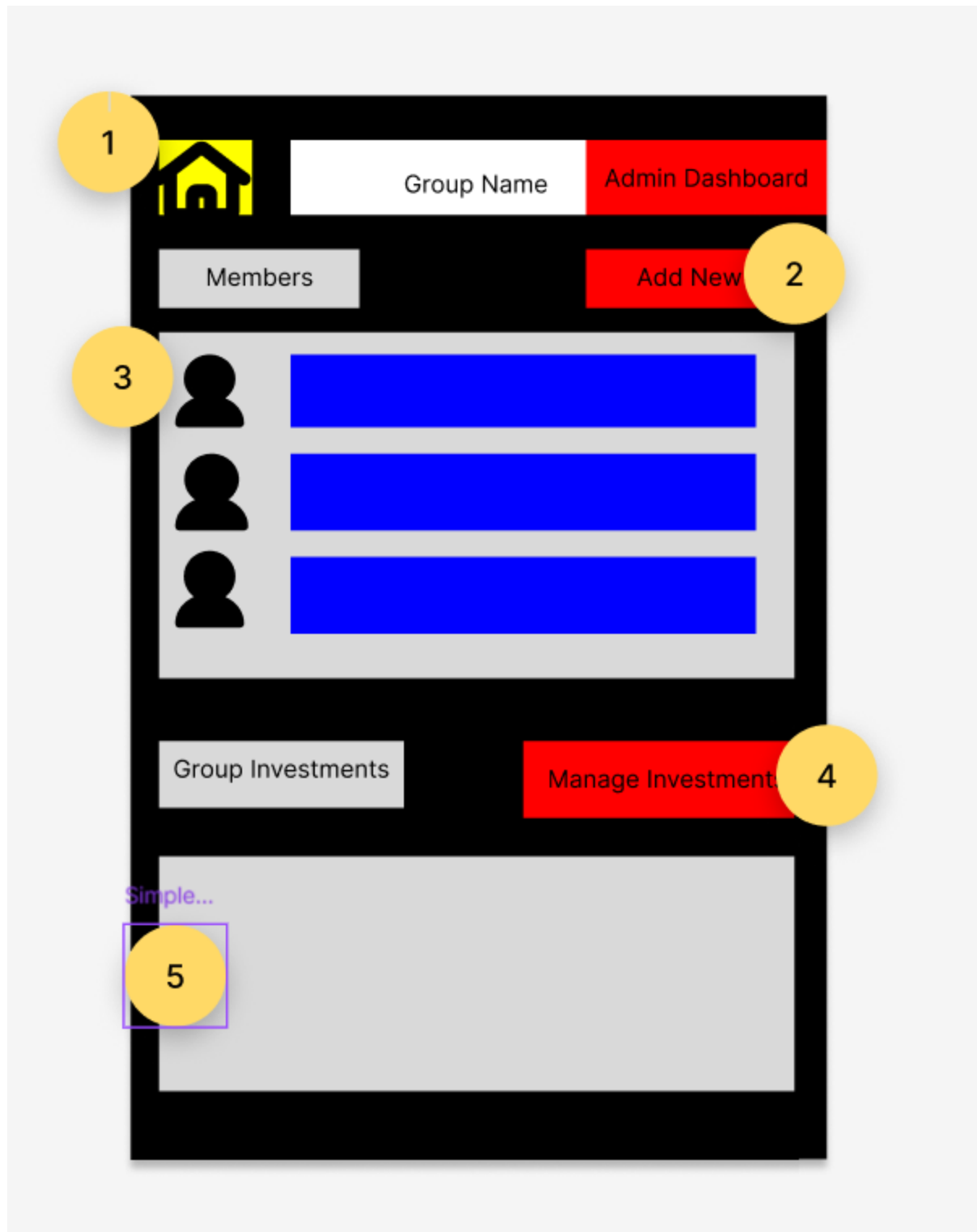
whole stock portfolio overview at a glance, this will include the total amount they have invested, along with a view of the portfolio's performance on the time scale selected. Under the portfolio list, you will be able to see your current funds, and at the top you can click the search button to be taken to the search page, or the 3 dashes to see the list of other pages you can go to. The plus button at the bottom will take you to the group page where you can modify/view your groups standings.

Profile Page

On the profile page, you can access your accounts information, along being able to update them, this includes your sign in information and email. You can also view and update your profile picture here which would be used by the group. There could also be a lifetime stats section where you could see how well your account has done overall, regardless of if you have sold stocks or currently bought them. Here as well, you can change the current funds available in your account which

Admin Dashboard

- 1) Home button to return to home page
- 2) Button to add new member to group
- 3) List of members and some data about their investments, etc.
- 4) Button to go to manage investments page for the group
- 5) List of group investments, either joint funds through group or something else



Group Dashboard

- 1) Home button to return to home page
- 2) List of group members and their investments/ info important to the group
- 3) List of group investments/ group funds/ maybe a leader board between group members

