How to Use this Template

1. Create a new document, and copy and paste the text from this template into your new document [Select All → Copy → Paste into new document]
2. Name your document file: "**Capstone_Stage1**"
3. Replace the text in green

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Benktesh Sharma

Description

SmartStock brings real time US Stock Exchange data. The market snapshots shows daily movement of major market indices covering New York Stock Exchange (NYSE), Nasdaq, and

American Stock Exchange (AMEX). It keeps track of your watchlist and notifies you of any thresholds and feeds sources of news from around the world related to the stock in your portfolio which can be used in trading decisions. Some salient feature of this app are listed below:

+ Shows Major market indices real time.
+ Provide Quotes, Charts, and News.

+ Show the detailed stock information: open price, last price, change, change percent, volume, day low, day high, exchange time,etc.
+ Ability to search and add the stocks to your favorite list.

Intended User

The app is for people who like to stay current with stock market.

Features

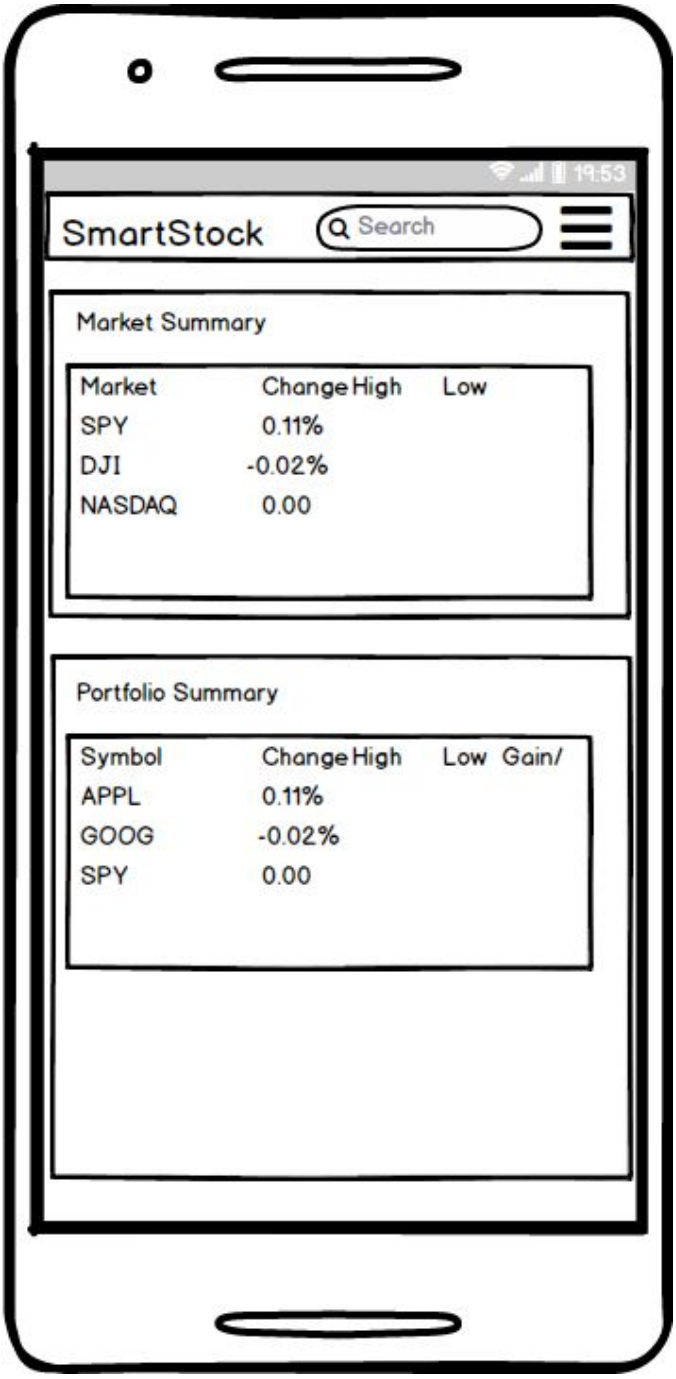
List the main features of your app. For example:

- Save, edit, delete stock in the portfolio.
- Add thresholds and allow notification when stock crosses the thresholds.
- Ability to create custom chart for the stock.

User Interface Mocks

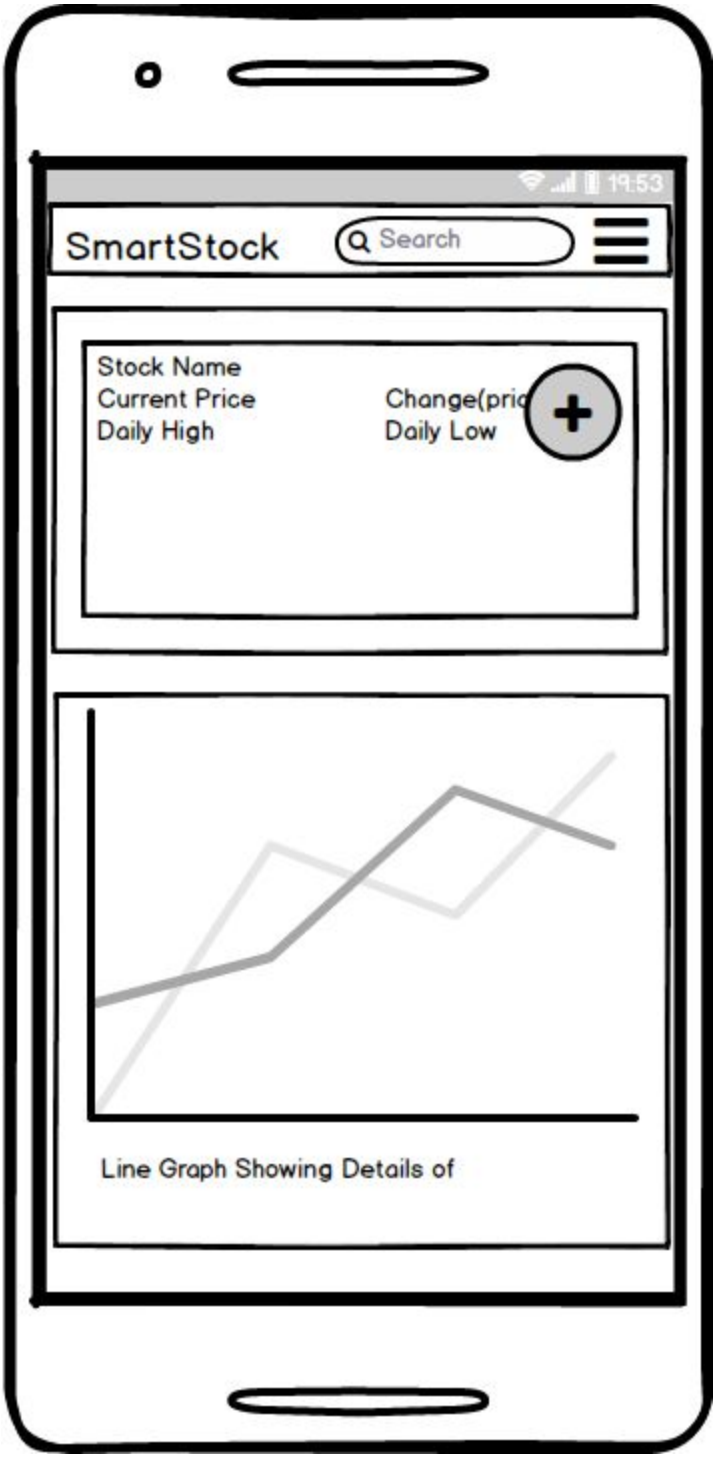
These can be created by hand (take a photo of your drawings and insert them in this flow), or using a program like Google Drawings, www.ninjamock.com, Paper by 53, Photoshop or Balsamiq.

Screen 1



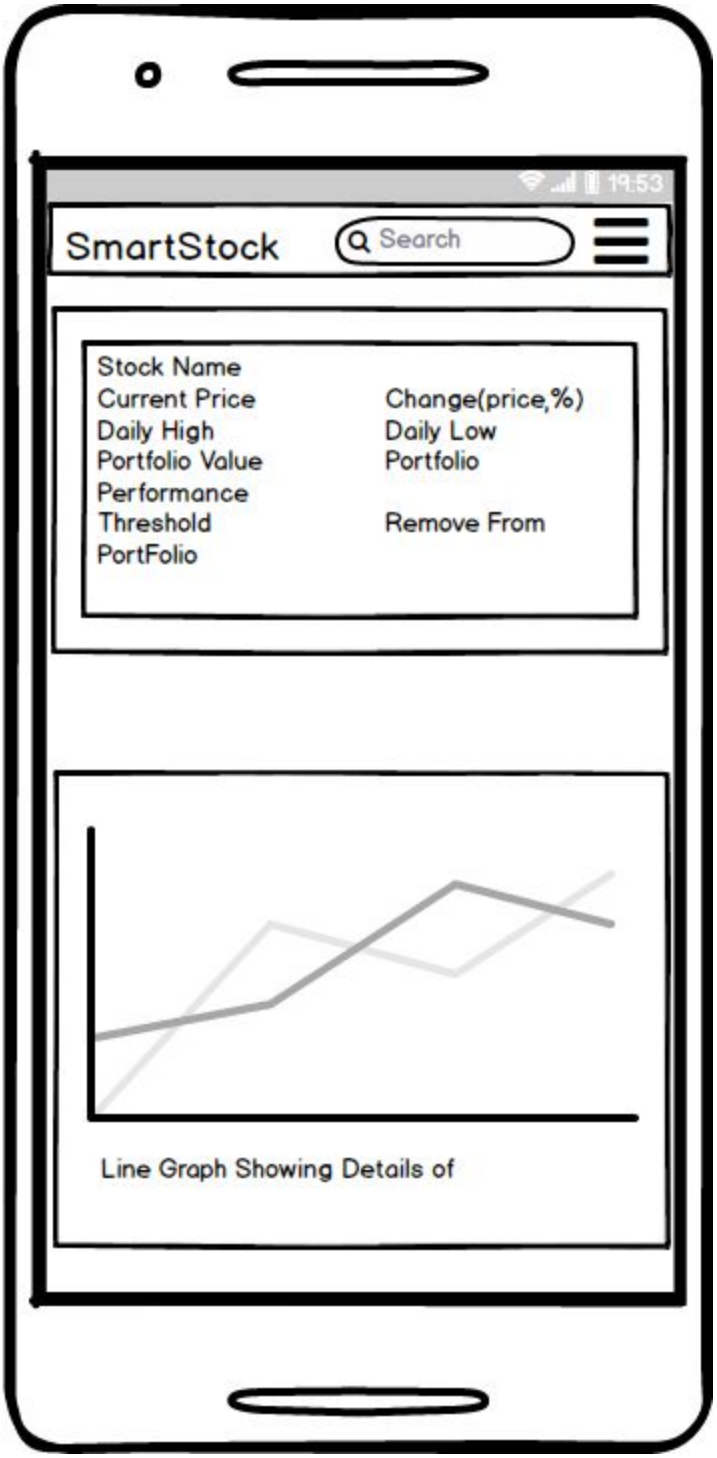
This is the main screen for SmartStock. In the main screen, summary of market as well as summary of portfolio will be shown. The fields shown in the mock-ups may change to make the UI better serve the user. Clicking any of the items, brings the detailed page.

Screen 2



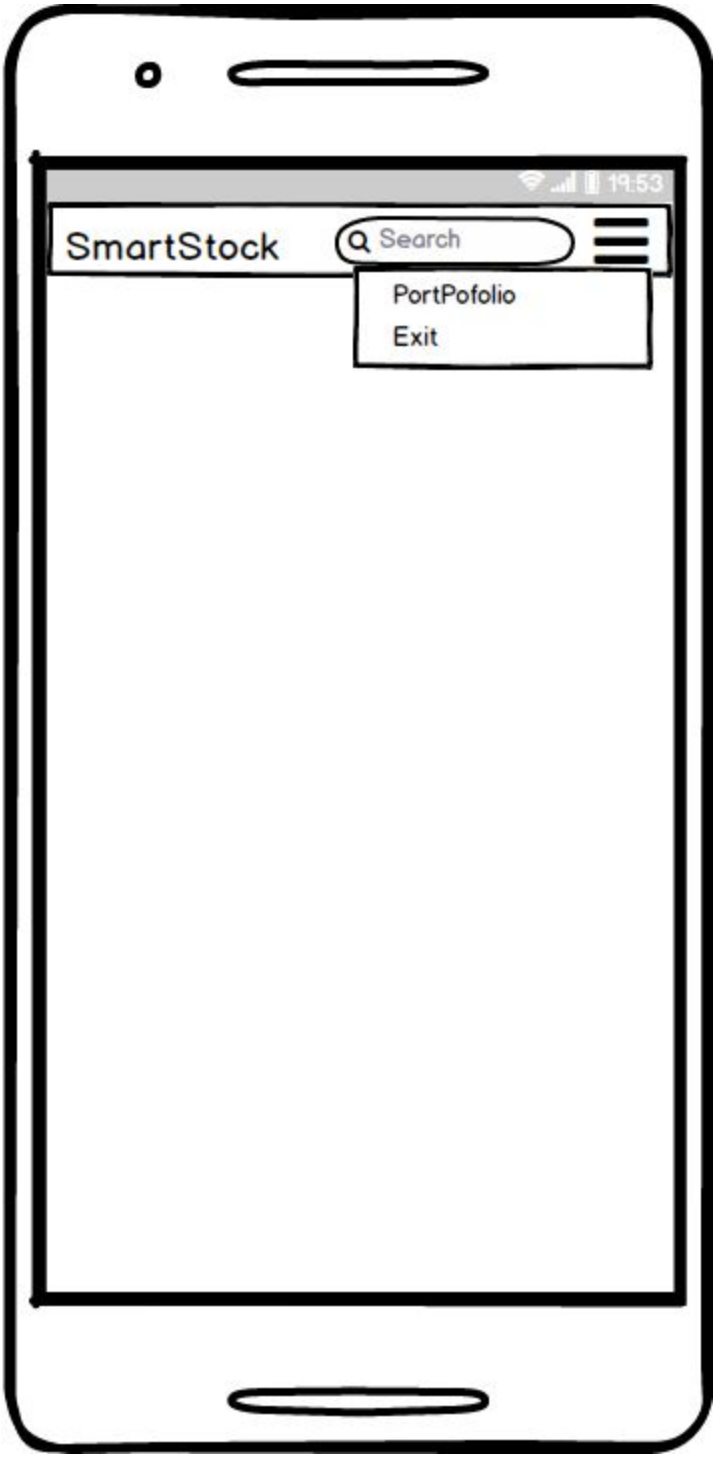
The stock details screen shows the details of the screen. If the stock is not in the user's portfolio the button '+' will show up. Pressing the button bring up the view where user can update the portfolio (this is shown later).

Screen 3



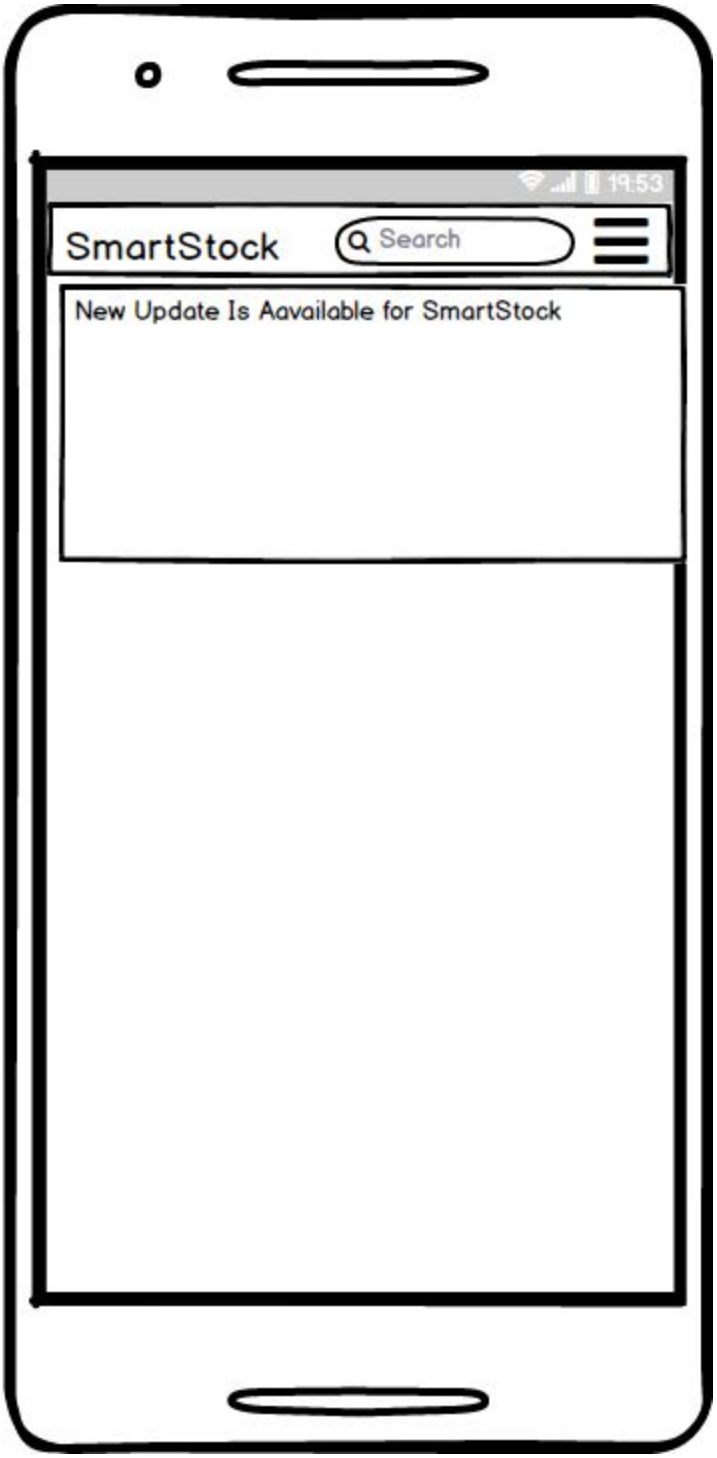
When a symbol is present in the user's portfolio, the add button will not appear, but portfolio values will indicate the value of the portfolio.

Screen 4



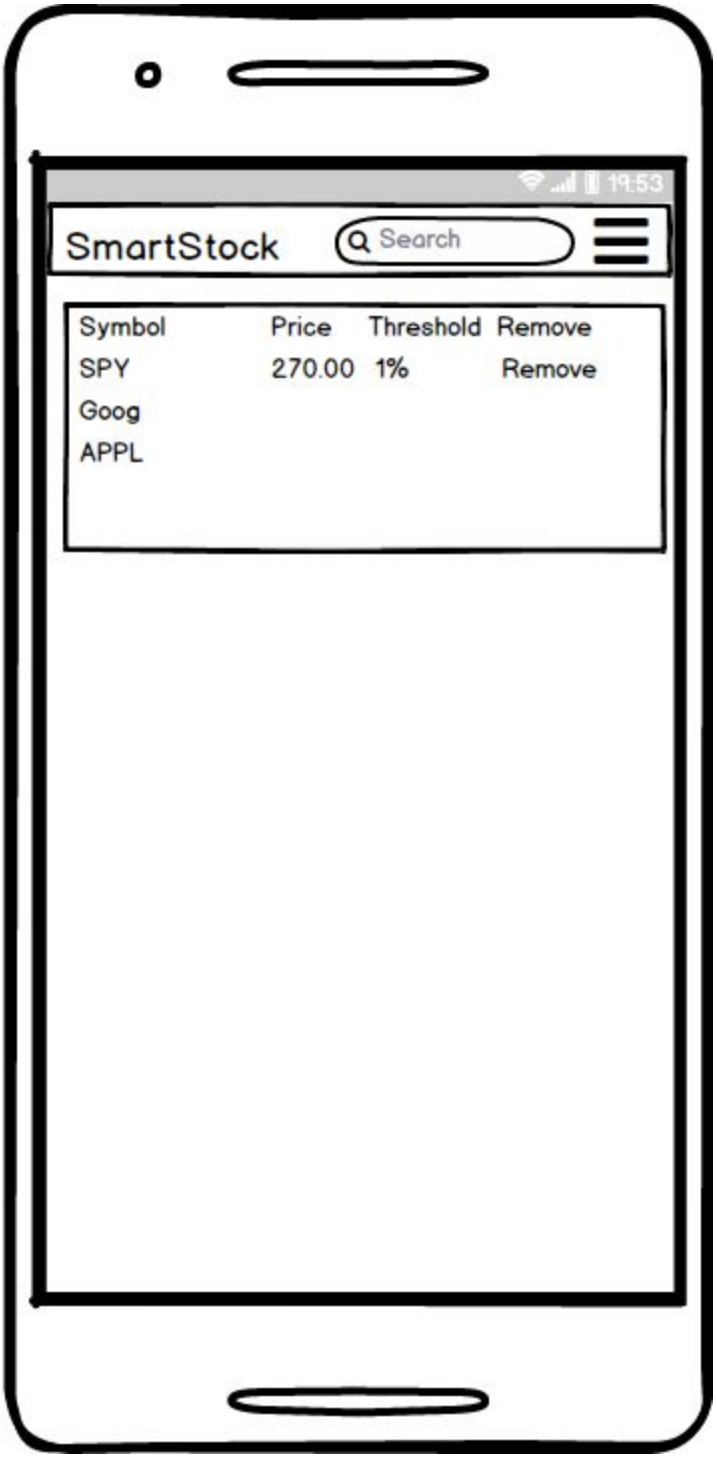
The menu bar contains navigation link to portfortpolio or exiting an app.

Screen 5



The Firebase server can send message to the user of the system. The message will appear in the main screen.

Screen 6



The portfolio view can be accessed either by menu or adding a new symbol from detailed page. In this page, threshold can be set and quantity can be specified.

Key Considerations

How will your app handle data persistence?

Application will use content provider to maintain data locally. Firebase will be used for push notification.

Describe any edge or corner cases in the UX.

When dependent data cannot be retrieved from the external API, an error message will be displayed.

If chart rendering is interrupted, then a blank placeholder image will be shown.

Any other fatal errors will make the app close.

Describe any libraries you'll be using and share your reasoning for including them.

Firebase will be used for push notification such as market news or some new features in the app.
Picasso will be used to render images. This is specially used in Detailed page.
AnyChart (https://github.com/AnyChart/AnyChart-Android/wiki/Getting-started) or Graphview (http://www.android-graphview.org) will be used to render graphs/charts. The plan is to explore both the libraries and evaluate based on performance, ease in use and dependencies and final appearance.

Describe how you will implement Google Play Services or other external services.

Firebase will be used for crash analytics and push notification.

Next Steps: Required Tasks

Task 1: Project Setup

Under this task, following subtasks will be implemented:

- Create repository and default project
- Configure libraries
- Configure menu

- Configure Database/persistence

Task 2: Implement UI for Each Activity and Fragment

Under this task, following subtasks will be implemented:

- Build UI for MainActivity
- Build/refine database
- Add Firebase related logic
- Build UI for detailed activity
- Build UI for portfolio
- Build mechanism to update user's data/list
- Add unit test as much as possible

Task 3: Create variants and Integrate with Google Play Service

Following subtasks will be implemented:

- Create Build Variant
- Create Screen size variant for layout
- Implement Google Play Service

Submission Instructions

- After you've completed all the sections, download this document as a PDF [File → Download as PDF]
    - Make sure the PDF is named "**Capstone_Stage1.pdf**"
- Submit the PDF as a zip or in a GitHub project repo using the project submission portal

If using GitHub:

- Create a new GitHub repo for the capstone. Name it "**Capstone Project**"
- Add this document to your repo. Make sure it's named "**Capstone_Stage1.pdf**"