

Proposal and Survey for a Stock Application

Jadees Anton
antonj@mcmaster.ca

Connor Hallett
hallee3@mcmaster.ca

Spencer Lee
leese5@mcmaster.ca

Nicolas Lelievre
lelievnm@mcmaster.ca

ABSTRACT

Be sure to also indicate if you are submitting a DESIGN or RESEARCH project in the “Abstract” section of your submission.

OVERVIEW

overview of the topic/software/device of interest tell me why you want to develop such a system

DESIGN IMPROVEMENTS

idea of what will be unique/better/improved in your system (versus what already exists this will be informed by your software survey)

USER GOALS

User goals when using this application are mainly to understand large amounts of information in meaningful ways. Primarily, users are interested in gathering insight related to general stock markets as well as their favourite stocks.

MICROSOFT MONEY

Description

Microsoft’s Windows 10 operating system comes bundled with a series of integrated applications, one of which is appropriately named “Money” and offers insight pertaining to the stock market, currencies and general finances. The application also enables users to monitor the progress of their favourite stocks as well as read financial articles and calculate mortgage payments.

User Tasks

In order for a user to view general information on the stock market, they must use the *markets* page, listed in the application’s sidebar, which displays statistics related to the past and current states of the local and global markets using a simple line graph as well as statistics describing the stocks increases and decreases in value.

Users may also view a simplified list of their favourite stocks in their *watchlist*, accessed through the sidebar or the top menu bar, which presents a summary of the stocks to which they have subscribed including current pricing, changes and volume for each stock.

Critique

Although the application does an excellent job of simplifying the interface, it goes beyond and seems to oversimplify it by crowding a lack of relevant information with large amounts of redundant content. For instance, the *home* page’s poor visibility shows very little stock ticker information in preference

for a myriad of large-tiled articles.

The conceptual model of the application is therefore very simplified in terms of usable information as the overcrowded nature significantly decreases its usability. Its severe lack of signifiers also makes finding new stocks and navigating the application challenging, hence decreasing its overall discoverability as users are constantly unsure of what can and cannot be accomplished.

It should be noted however that the layout, although crowded at times, is well conceived as the stock information is clear and easily interpreted.

APPLE STOCKS

Description

The iOS 9.0.2 comes with a lot of standard applications and the subject of this section will be Apple Stocks, Apple’s financial stock market application. Apple Stocks allows the user to take a look at advanced statistics and news articles about stocks that they have selected as part of their portfolio. Note that Apple Stocks works with Yahoo! Finance to provide real-time updates to the user.

User Tasks

If the user wants to view general information about their portfolio, the user simply has to open the application. Immediately after opening the application, the user sees the Apple Stocks home screen. The top half of the screen consists of the list of stocks in their portfolio and the bottom half is the information centre with details about the stock in the portfolio that is highlighted.

If the user would like to modify their portfolio, the user has to go into the *Portfolio Settings* menu. Inside the menu, they can choose to either re-order, add to or remove from the list of stocks. Once the user is satisfied with their portfolio, they can click on the blue *Done* button in the top right corner of the screen and return to the application’s home screen.

Critique

Apple Stocks does a great job of applying natural mapping to its UI. The user’s portfolio is displayed as a list, and for them to scroll through options, they can swipe up or down to move the list up or down. The user can intuitively learn about how swiping on the portfolio and swiping the information centre for a highlighted stock affects the information displayed. The application also does a great job of keeping its layout concise and delivers information about a user’s portfolio in a very quick manner.

One aspect that Apple Stocks does not perform well in is

making the option to modify a portfolio apparent to the user. Apart from the small list icon tucked away into the corner of the UI's layout, there aren't any signifiers to the user that this option exists. The icon itself doesn't an indicator that it is a button there are no lines around the icon and it blends into the background of the UI. This can make it confusing for the user to find where to click if they want to modify their portfolio.

HTC STOCKS

Description

HTC Stocks is a mobile Android application that comes installed on all HTC devices. This app allows the user to add stocks to their list of bookmarked stocks, view basic information about all stocks that they have bookmarked at the same time, and view detailed information about one stock at a time. The detailed stock view includes a graph of price history, high and low prices, and information about the values at open and close for the stock on the current day. The application is powered by Yahoo Finance.

User Tasks

For a user to find information about stocks they may be interested in through this application, they first need to add the stock in question to their favorites. Once this is done, the stock will appear in the users list of favorite stocks, where they can tap on it to see detailed information.

To view general information about all of the stocks that a user is following, all that the user needs to do is open the app. On the home view a list of all of the stocks that a user is currently following is displayed along with the current price of the stock, along with the absolute and relative changes in the stock's price over the trading day.

Critique

This application falls short when it comes to viewing information about stocks that a user may be interested in. For a user to see any information about a stock, it must be added to their list of favorite stocks. As a result, the user may end up with a favorites list that is cluttered with stocks that they only wanted to view once, which makes seeing information about their regular stocks more difficult. This application does a good job however in displaying quick information to the user about their followed stocks. If the user has maintained an accurate list of their favorite stocks, they will see the majority of the information they need as soon as they open the application.

YAHOO! FINANCE

Description

YAHOO! Finance mobile application allows users to track trading prices of current stocks. The application is composed of three main sections: Home, News, and Markets. The Home section contains a list of the users stocks that he/she is following, followed by select news articles. The News section contains the latest news reports on various international current events; mostly articles concerning foreign markets and companies. The third section, Markets, allows the user to track the S&P Composite Index for the Toronto Stock Exchange (TSX), the Dow Jones Industrial Average (DOW), and NASDAQ.

User Tasks

The first task is for a user to follow a new stock. He/she is first required to open the application. Once on the Home page, the user clicks on the Edit icon, rendering the edit view of the list of the stocks he/she is following. The user then clicks the Add icon and searches for the stock of interest. Once found and selected, the stock is added to the list of followed stocks.

The second task is for a user to check which stocks in the American market have increased in the most value in the last day. This can be done by opening the application and going to the Markets page. The user then ensures that the U.S. market button is selected. He/she then scrolls down to the section Market Gainers to see which stocks have increased the most in the last day in the American market.

Critique

YAHOO! Finance displays adequate visibility for its overall layout. Intuitively, the Home page contains the most common information that a user would require (status of his/her followed stocks, news items). The News page contains news articles (as expected), and the Markets page contains information regarding each market in an organized fashion.

The application lacks organization when displaying its news articles. Like most mobile application, it integrates ads into the user interface. Links to ads appear sporadically in between news articles in the news article feeds on both the Home and News pages. It would make more sense to group all ads together so the user can differentiate an ad from a news article more easily.

CONCLUSION

Paper conclusion (if we have one).

REFERENCES

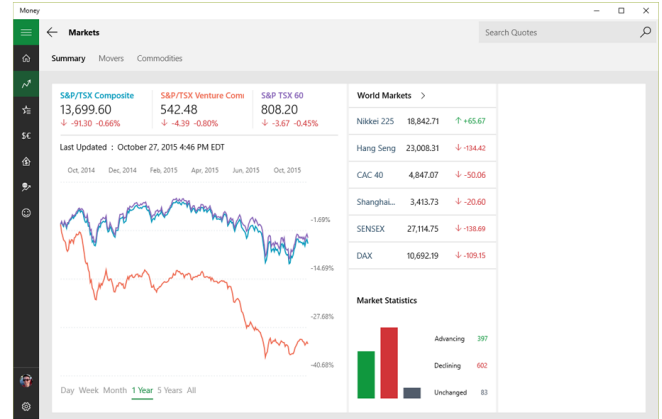
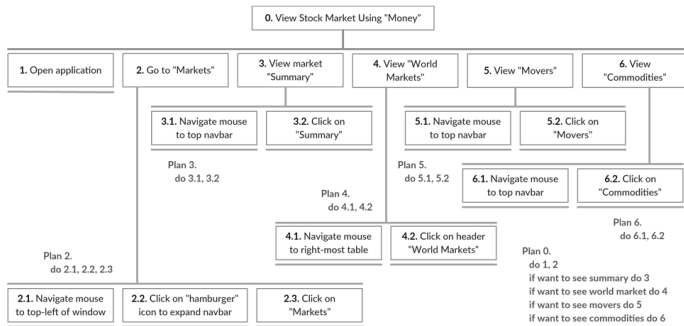


Figure 1. Viewing stock market HTA and accompanying screen caption of Microsoft Money.

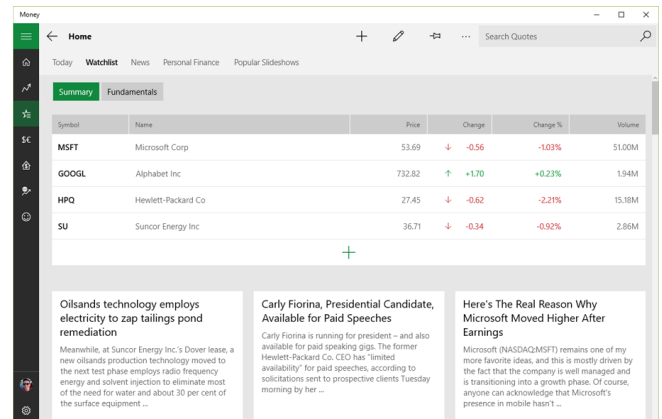
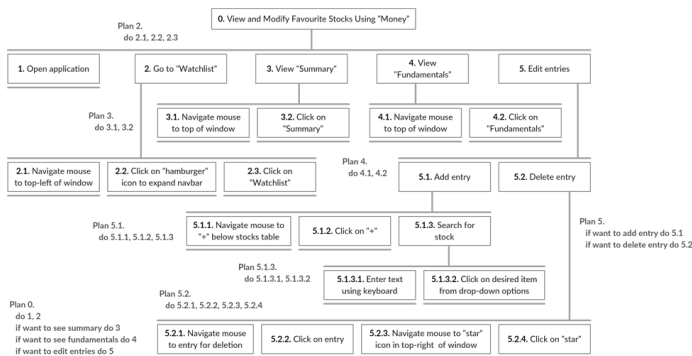


Figure 2. Viewing and modifying favourite stocks HTA and accompanying screen caption of Microsoft Money.