

ITSC-3155 Design Sprint Day 1

Group Activity

November 19, 2020

Group 14, Foreign Currency Exchange Application
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GitHub Repository:

<https://github.com/scottgirard/Group-14-Project>

Personas:

Meet Joey:

Joey, a 23-year-old college graduate is currently working as a software developer for a well-funded startup. He grew up in a small town in Pennsylvania where his father worked in the oil industry. While growing up, Joey dreamed of escaping his small town to see the world.

Joey hasn't traveled much because of finances, but with his new job and carefree lifestyle, he has begun to think about spending some time visiting the countries he heard about in his youth. Joey took a few business courses in college and has a basic understanding of how exchange rates work, but he doesn't want to put a lot of mental effort into converting currencies in his head while traveling.

Meet Ralph:

Ralph is a 33-year-old banker working for one of the large US banks. Ralph grew up with his two brothers in mid-sized Chattanooga Tennessee. Ralph was into sports growing up and while he doesn't play organized sports anymore, he misses the competition and camaraderie of team sports. He has a competitive spirit and a desire to win at everything he attempts.

Ralph stays busy during the day with his work, but finds there are times when he has an opportunity to keep up with a few stocks he invests in. He has recently become interested in foreign exchange trading and would like to try his hand in the forex markets. Before he jumps into the market, he wants to study how currencies move over time. He has a strong desire to assess his ability to make money in forex trading before he jumps into the market.

Meet Frank:

Frank is a 66-year-old recent retiree. Frank lives alone with his wife in snowy Milwaukee, having raised a fine family of four children. Frank retired from a long career as a mid-level manager in the tire and rubber industry and has managed to create a decent retirement fund that allows himself and his wife to live a comfortable lifestyle.

During the long cold Milwaukee winters, Frank starts looking for activities to keep his brain occupied. Frank has always had a mind for numbers, so he seeks out ways to entertain his mathematical interests. One long-time interest Frank has nurtured is the study of historical market data. Frank has a strong belief that over the long run, the financial markets move in a predictable way and that if you study a market long enough, you can spot trends in the data. Frank has become interested in foreign currency exchange markets and he is looking for a way to test his theories about foreign exchange currency price movements.

Other Stakeholders:

Other stakeholders include:

- Foreign exchange brokerage firms
- Advertisers
- Currency exchange data providers
- Investment researchers
- Curiosity seekers (just for fun)

Ask the Experts and How Might We:

See our Trello Board: <https://trello.com/b/6bqjhAfx/design-sprint-day-1>

Figure 1. Screenshot of Trello Board

Design Sprint Day 1 | Trello

What is Trello? - Trello Help

Feature Deep Dive | Getting Started with Trello

Boards

Design Sprint Day 1

Group 14

Free

Public

NK

Invite

Butler

Show Menu

Make a Map

A simple diagram showing how a user uses the application.

The map is a rough draft.

Each of us should make our own maps.

+ Add another card

Ask the Experts

Interview each other. Ask questions. Goal is to improve the maps. Listeners create "How Might We" cards.

Is the app customizable to different user's needs?

Can the user configure a default currency setting?

Can the user see multiple currencies at one time?

Can the user display a time-series chart, and if so, can the user select custom time frames?

How will the user enter the number value for the currency she wants to convert?

Will the view adjust to varying screen sizes?

Will this be a web based application?

Will there be a compare currencies function?

How many visuals for the information will be offered?

How often is the data updated?

How will the app bring in revenue?

Will you add more currencies in the future?

How will you determine if a currency should be added?

What is the long term goal for the app?

Why would someone decide to use your app over doing the research on their own?

+ Add another card

"How Might We"

Team takes notes using a technique called How Might We.

List "How Might We" ideas here. Later we will sort them under headings (not yet created)

Put one How Might We on each card.

Move all the notes to a new list(s) and sort them by categories.

HMW: Allow the user to configure a default currency?

HMW: Allow the user to see multiple currencies at once?

HMW: Give the user a place to input a number value?

HMW: Display a time-series chart of historical price movements?

HMW: Allow the user to select a time frame to view?

HMW: Aid the user in knowing what country the currency corresponds to?

HMW: Indicate whether a currency exchange rate is trending up or down?

HMW: Data will be updated every 30 days

HMW: The app will be web based to allow support across multiple platforms

HMW: While a user could definitely look this information on their own we provide convenience to the client with many helpful features all in one place.

HMW: Currency will be added based on all major currencies and requests by users

+ Add another card

Pick a Target for the Sprint

Choose one specific target customer

Choose one specific target on the map

Choose the questions from earlier that you want to try to answer on your sprint.

+ Add another card

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Individual Activity:

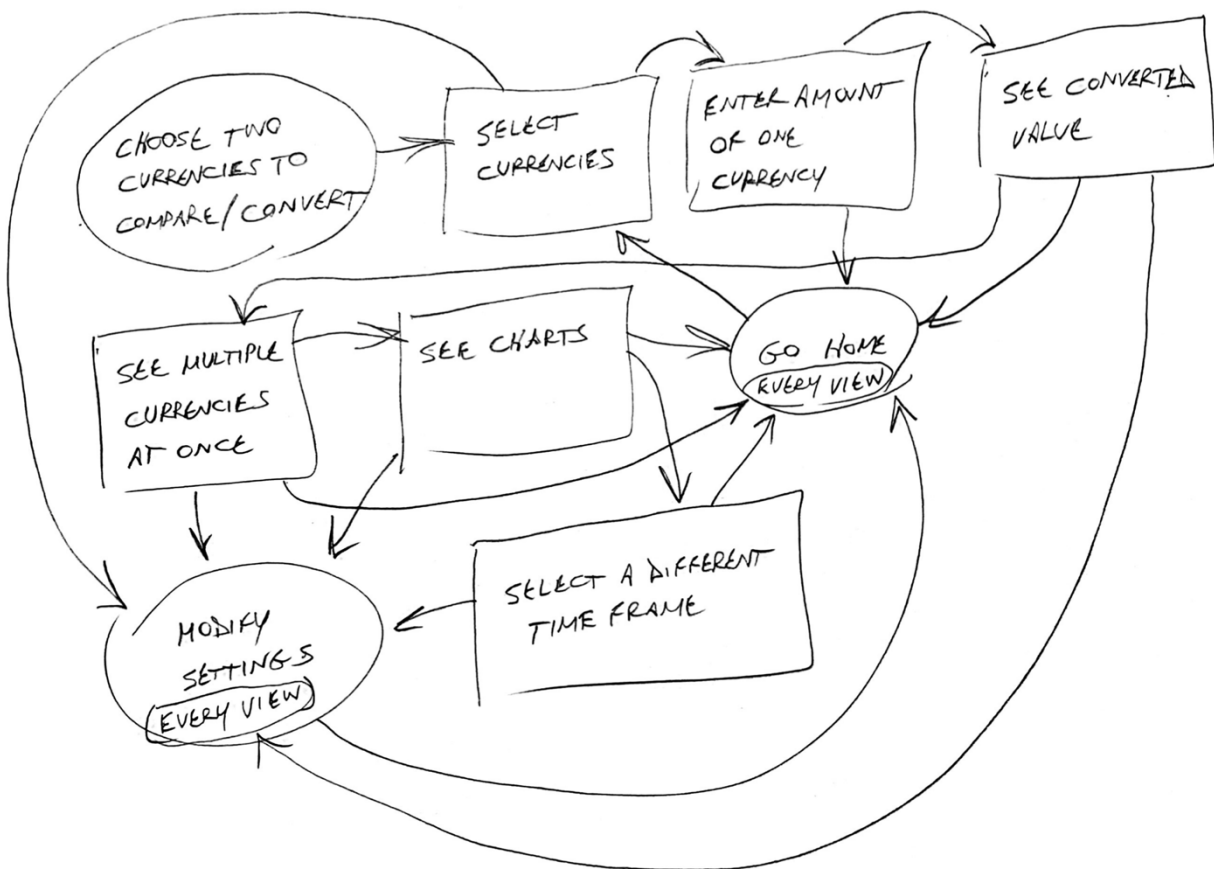
Scott Girard

November 20, 2020

Use Map:

See documents under Girard-DesSprintDay_1 in our GitHub Repository:

<https://github.com/scottgirard/Group-14-Project>



JOEY OPENS THE APP ON HIS PHONE



HE ENTERS A
DOLLAR AMOUNT
AND SELECTS
A CURRENCY



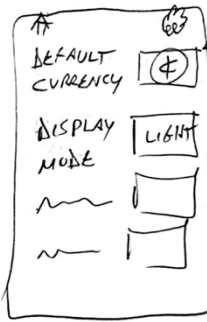
JOEY WANTS
TO SEE HOW
OTHER CURRENCIES
COMPARE.
HE CLICKS THE
"SEE ALL" BUTTON



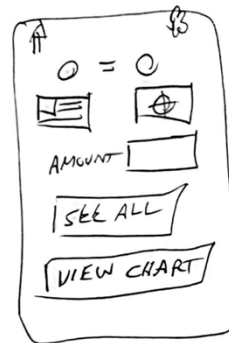
JOEY
CLICKS THE
"HOME" ICON



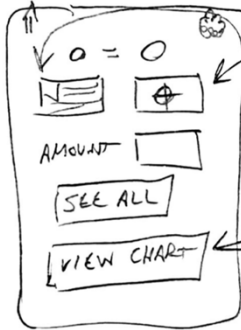
JOEY WANTS
TO SET
EUROS AS
HIS DEFAULT
CURRENCY
HE CLICKS/TAPS
THE SETTINGS
ICON.



JOEY SELECTS
HIS DEFAULT
CURRENCY
HE CHANGES
DEFAULT CURRENCY,
CLICKS THE
HOME BUTTON



JOEY WANTS TO
VIEW A CHART
COMPARING THE
DOLLAR AGAINST
THE EURO.



HE SELECTS
THE TWO
CURRENCIES
HE WANTS
TO COMPARE,
THEN CLICKS
"VIEW CHART"



JOEY CAN
SELECT A TIME
FRAME TO
VIEW THEN
CLICK "RECHART"
TO SEE THE
CHANGES

JOEY CAN
ALSO SELECT
DIFFERENT
CURRENCIES
TO CHART



THE APP SHOULD
WORK THE SAME
WHETHER IT IS
VIEWED ON COMPUTER,
TABLET, OR MOBILE
PHONE

THE SAME "MAP"
SHOULD ALSO
WORK FOR RALPH
AND FRANK.

Scenarios:

Joey:

Joey finds the idea of a simple currency converter that he can access from anywhere to be appealing to him, and he likes the idea of viewing currency conversions at a glance. Joey wants to be able to enter specific dollar amounts and get a conversion so that he knows how much things will cost when he is traveling.

Joey is planning a trip to Paris to see the Eiffel Tower and tour the Louvre. He has made his flight and hotel reservations. When investigating tour prices, Joey has found that they are often priced in Euros and he has found himself visiting various currency conversion web sites to calculate the pricing in Dollars. He imagines that currency conversion is going to be a frustrating experience while he is in France, so he is looking for something simple that he can access quickly while traveling. He has not found a currency conversion website that is as simple and easy to use as he would like.

Ralph:

Ralph likes the idea of a simple app that he can reference discretely during the day while at work. He doesn't want to bring attention to himself, so he wants to be able to get a lot of information about the forex market quickly, at a glance, without having to click a lot of buttons, enter URLs, or click through a lot of different web pages to view forex market data.

Ralph has experimented with several web sites on his mobile phone, but he has found that many of them are designed for a desktop experience. Ralph would like a currency conversion web site that works well on mobile. Ralph is seeking a web app that is easy to use, designed for a mobile screen, and has some advanced charting features so that he can view historical rate information.

Frank:

Frank likes the idea of being able to generate time-series charts of various foreign currency exchange rates. Frank is interested in a simple tool that would allow him to generate time-series currency charts. He plans to refer to the charts often as a valuable tool in his research toolbox.

Frank has tried various foreign exchange websites on his computer, and he is often frustrated by the amount of advertising and pop-up windows he encounters. Many of these web sites require him to create a login to access the charting data he is looking for, and being older, he and passwords have a love-hate relationship. Frank is looking for a simple website application that provides the information he is looking for without all the hassle.

User Stories:

- As a traveler, I want to be able to do quick currency conversions so that I don't inconvenience others while waiting in line to purchase an item.
- As a traveler, I want to be able to see multiple currencies at once so that if I cross a border, I can change the currency I want to convert.
- As a traveler, I want an application that I can use on my mobile phone so that I can work with a small portable device when I need to convert a currency.
- As a foreign exchange investor, I want to see charts of historical price movements so that I can get a feel for how foreign currency markets move over time.
- As a full-time employee, I want to be able to see currency movements at a glance when I have small amounts of free time during work.
- As a foreign exchange investor, I want to be able to tell at a glance if a price is moving up or down so that I don't have to spend a lot of time comparing numbers.
- As a retired investor, I want a desktop experience so that I can have my papers in front of me while I am researching currency movements.
- As a retired investor, I want a simple, uncluttered experience so that I don't have to deal with a lot of pop-up windows and advertising.
- As a retired investor, I want to see historical chart data so that I can gain an understanding of historical price movements.

Feature List:

- Read currency exchange rate data from a database for currency conversions.
- Accept user input for the user to enter a value of a currency amount.
- Convert the value of one currency to the value of another currency.
- Convert the value of one currency to the value of multiple currencies.
- Display time-series exchange rate data as a chart.
- Display time-series exchange rate data as chart as a function of a selected time period.
- Allow the user to set preferred default currency.
- Allow the user to set preferred display options.
- Allow the user to return to the home view.
- Allow the user to access the user preferences view.
- Allow the user to navigate between different views.
- Adapt screen output to varying screen sizes and devices.