Foundations Budget Application

Josh Folken
University of Missouri – Kansas City

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Vision Statement

For my project I am building a budget application. This application will allow users to input their total amount of money for their monthly budget, their individual expenses by cost, category, and date, as well as allow users to see previous budget information from past months. The application will sort the expenses by category and also filter them by date, starting on the first of the month and stopping on the last of the month. The application will contain a list view so that the user is able to see what their expenses were that were previously entered during that month. Lastly it will include a visual representation of their budget in the form of a graph which is sorted by expense category. The graph will also be updated in real time as expenses are entered. This application will be useful because it will help the user keep track of their monthly expenses and give them a visual representation of their expenses as well so they can see how much off their budget they have remaining as well as where their money is going.

Requirements

Actor	**Goal**
User	Add expense to budget by category, cost , and date
User	View previous months budget and expense information
Application	Automatically save user's budget information after it is entered
User	Exit application

Product Backlog

Story ID	Story	Story Points (in est. hours)	Priority	Status
Body of Program	Build the home activity, previous months activity, and current month activity of application with click events leading to those pages	5	1	In Progress
Current Budget	Build current month activity functions: Entering expenses, sorting expenses by category and date, and saving expenses to internal storage	8	2	Open
Previous Months	Build previous months activity: Stores data from previous months based on start and stop date of months	4	3	Open
Visual effects	Implement visual representation of data in the form of a graph and a list view of expenses	6	4	Open

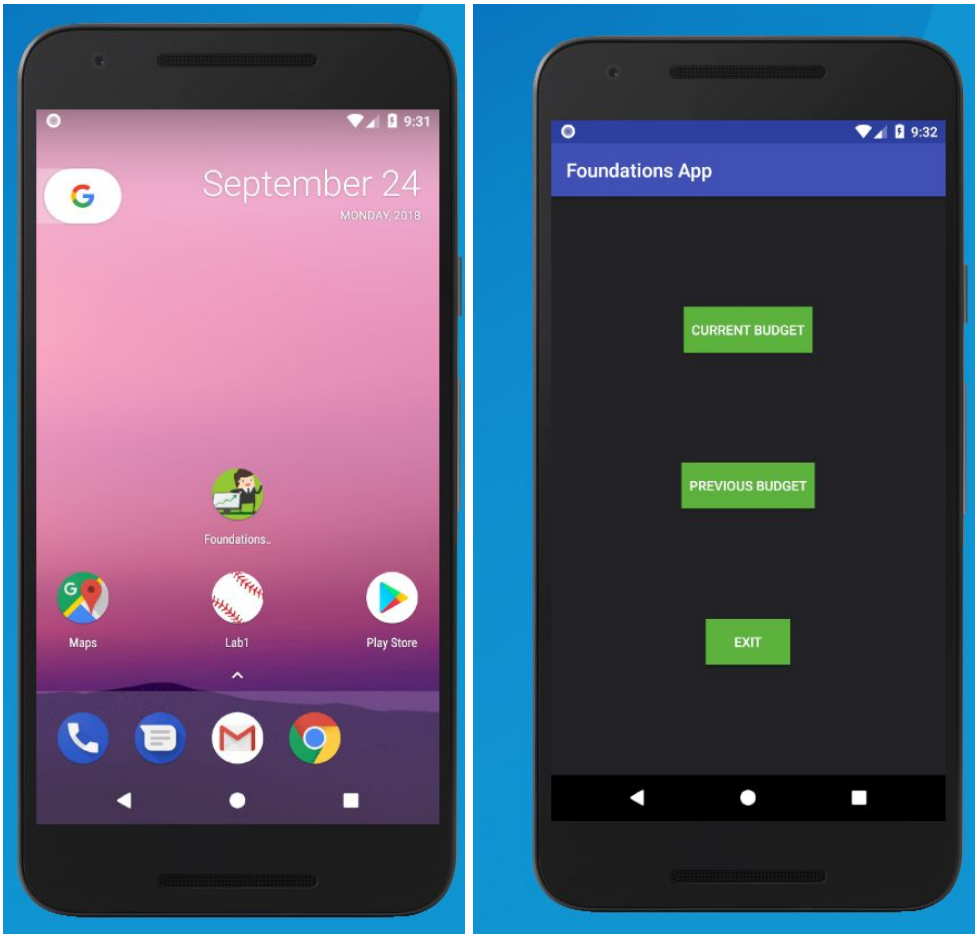
Sprint #1

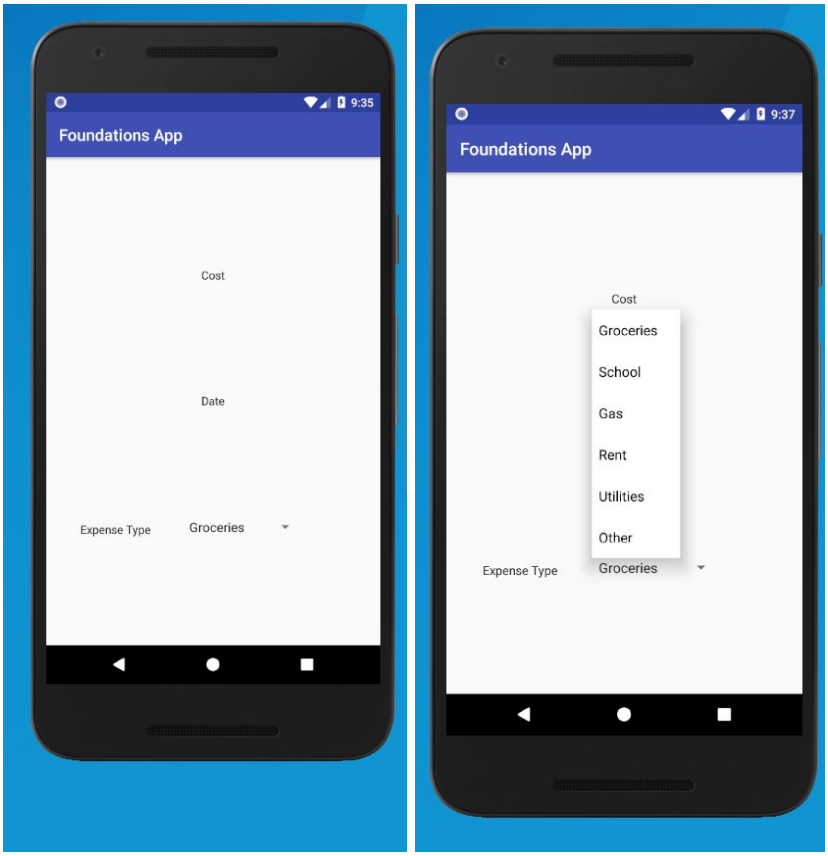
Sprint Backlog

Story ID	Story / Task	Estimated Hours	Actual Hours
Body of Program	Build current month activity	1	1
Body of Program	Build previous month activity	1	1
Body of Program	Build home activity	1	1
Body of Program	Buttons to link each page	1	2
Body of Program	Button click events to each page	2	2

Review

During this Sprint I built the main body and structure of the program. To start out this application I built all the different activity screens that I would need. Once each activity was built a navigation button was added to each of the page that moved to another activity on a click event. The main purpose of this Sprint was to build the activities and the navigation within the program. Besides those things I also added in an application icon as well as created a drop down list for selecting the type of expense.


9:31
September 24
MONDAY, 2018
Foundations..
Maps
Lab1
Play Store
9:32
Foundations App
CURRENT BUDGET
PREVIOUS BUDGET
EXIT


9:35
Foundations App
Cost
Date
Expense Type
Groceries
9:37
Foundations App
Cost
Groceries
School
Gas
Rent
Utilities
Other
Expense Type
Groceries

Retrospective

Overall this Sprint went well. The main body of the program works well and although it isn't extremely organized at the moment, functionality of the program is where I would like it to be at this point. The main issue I had during this Sprint was in the creation of the dropdown list. The initial build of the dropdown list took longer than expected and now that I have done it once I feel like doing so again will be much easier. Next Sprint I do not plan on making many changes to my process, I was able to stay on schedule and build the main navigation between screens and the body of application. I want to build all the functional pieces of the program during the first 5 iterations and on the last iteration just fix the appearance of the application.

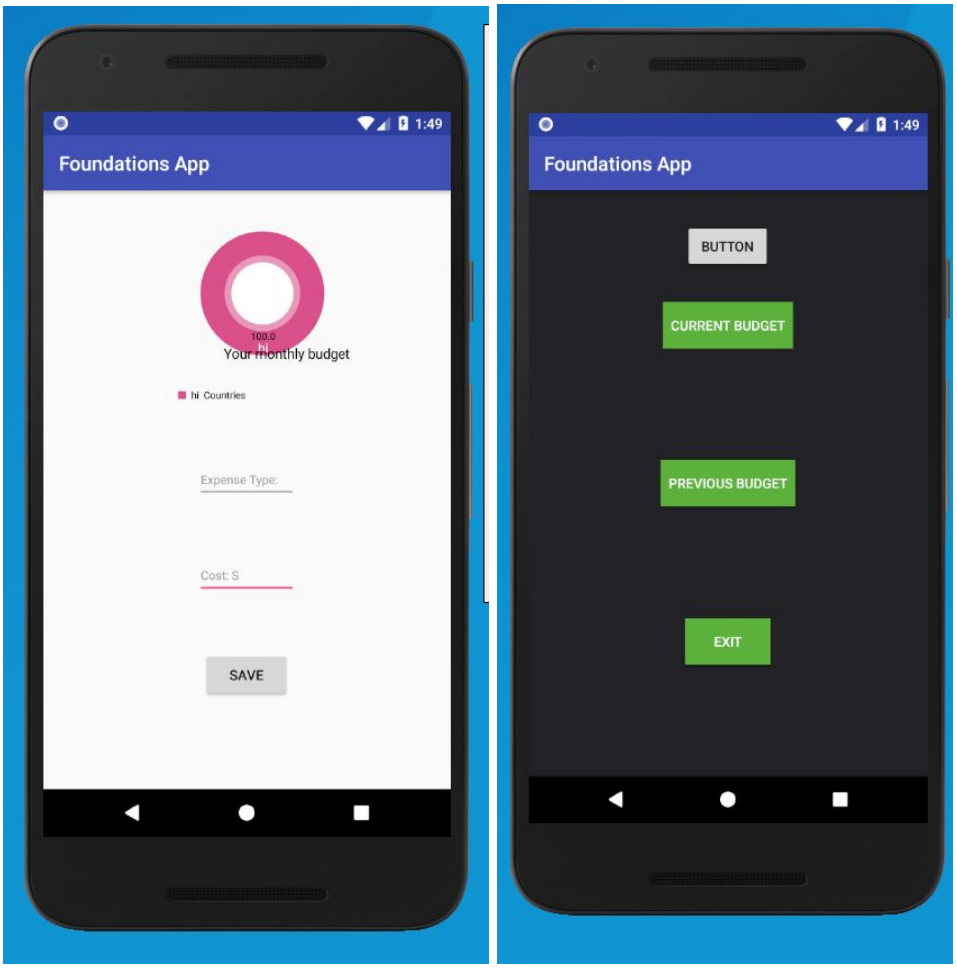
Sprint #2

Sprint Backlog

Story ID	Story / Task	Estimated Hours	Actual Hours
CB_Activity	Add date selection	2	
CB_Activity	Add cost insertion	1	
CB_Activity	Add saving functionality	4	
CB_Activity	Add function that sorts data by date and type	2	

Review

This sprint had some issues and I ended up running behind on my coding during this iteration/ I was able to implement a graph but struggled to get user input of data. At the moment I have a graph implemented and a way for the user to input data but I still have to make the connection between the data being entered and it being added into the graph. I ended working on a much different thing during this sprint than planned. I realized that instead of implementing date, cost, saving, and sorting functionality I needed to create a graph and then implement all those things afterwards which is what I attempted to do.



Retrospective

Overall this sprint went in a different direction than I planned. I implemented my graph and user input of cost and expense type but I was unable to implement that user input into the graph so I fell behind in the iteration. I think overall I gave myself too much to do this iteration and because of that I was not able to finish everything I had hoped to do.

Sprint #3

Sprint Backlog

Story ID	Story / Task	Estimated Hours	Actual Hours
Creating chart	Saving functionality and chart data	8	A lot

Review

So I haven't made any changes to code or layout. This last 2 iterations I've hit a wall when it comes to adding data to the chart and saving data in from the edittext fields. I've been reworking my whole setup of the application and the way the application is charting the data. Since the key part of this application is the visualization with the chart this is the major part of the project. Originally I was using an arraylist to save the data but I hit a wall and was unable to implement that. I have now since switched over to using a SQLite Database to make the application which is not ideal. Originally I wanted the data to be stored on the phone's internal storage and pull the values from there but I was unable to do so. I've been doing rework after rework so far and have no successful changes to report this iteration. I'm currently working on the SQLite Database setup to try to use that for data storage. I will provide updates as success is made. I have a meeting next week with a tutor for Android programming and hopefully they will be able to help me get past this wall I have hit with application development.

Retrospective

This iteration clearly ran long and I have struggled with the saving functionality. My application does not look the best at the moment and is still very disorganized and not appealing visually. I plan on making all the visual changes once saving functionality is worked out. After the saving and input of data is implemented the rest of my time this semester will be dedicated to making the application looking more appealing as well as having better navigation and user interface. This part of the project involving the input of data, saving data, inserting the data to the graph, and deleting data from the table and graph is the core or my application. Once this is completed the rest of the application will be able to be built around this and will be much easier to implement.

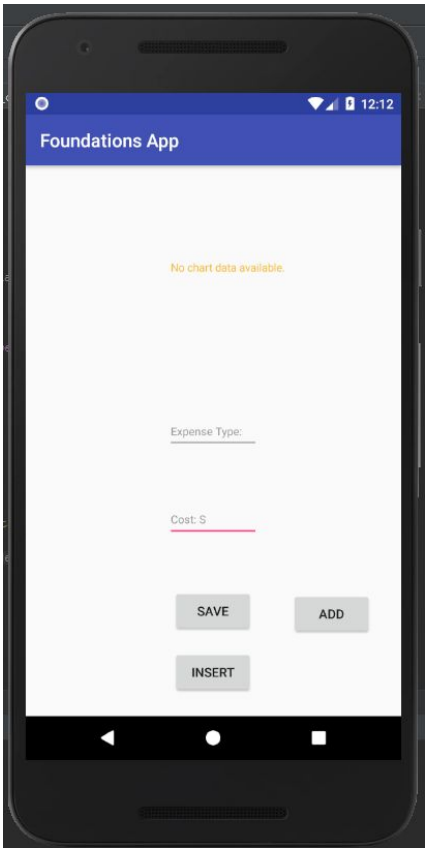
Sprint #4

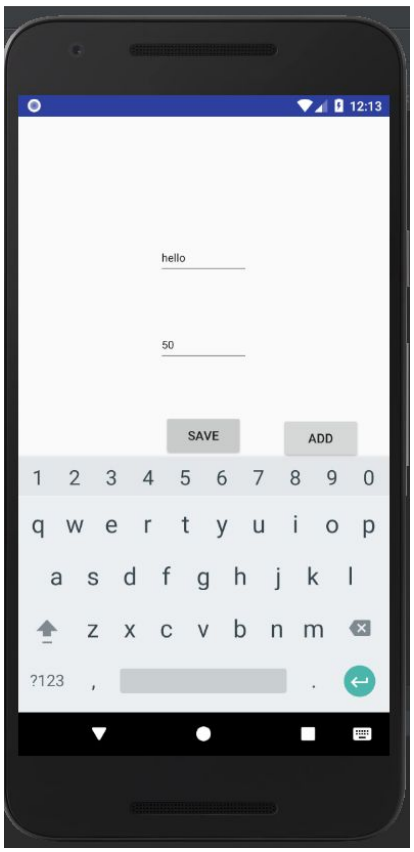
Sprint Backlog

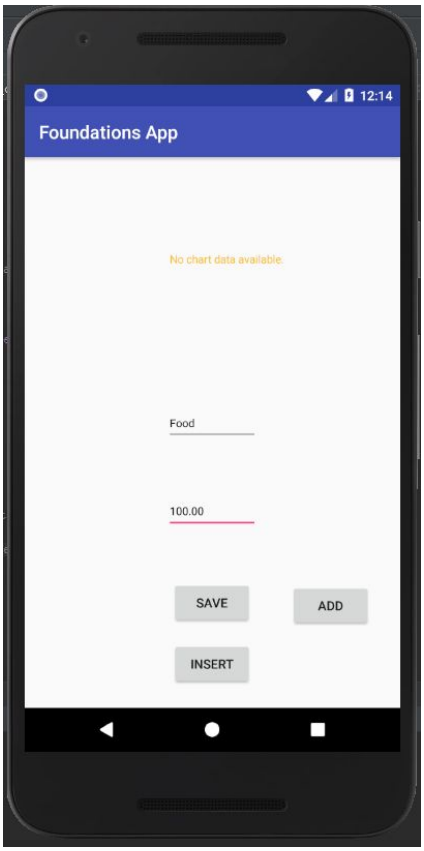
Story ID	Story / Task	Estimated Hours	Actual Hours
Creating chart	Saving functionality and chart data	8	A lot

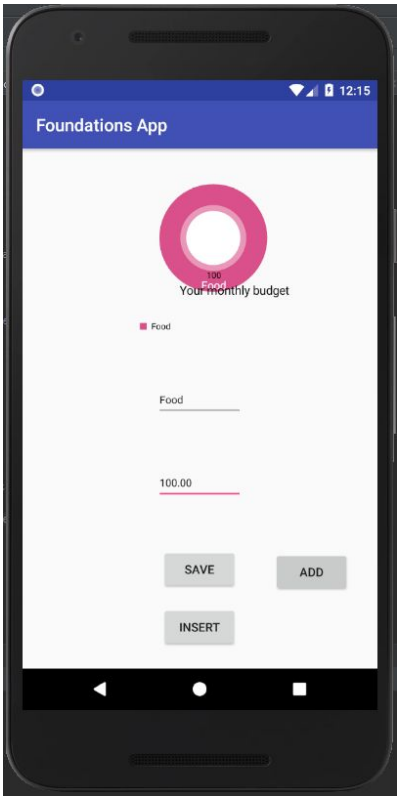
Review

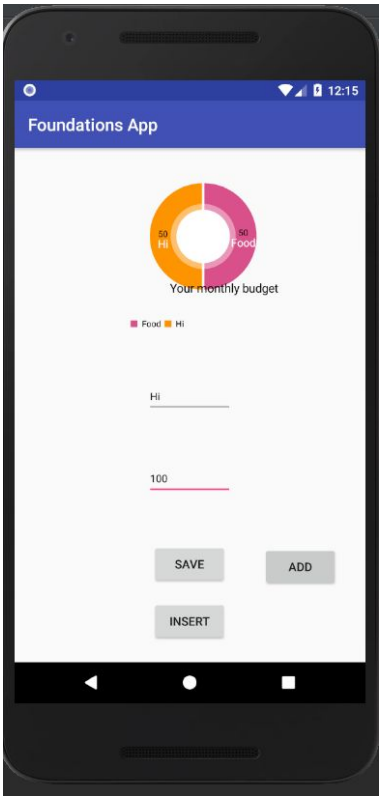
This sprint went much better than the last one. I mainly focused on the graphing a saving capabilities during this sprint. Specifically I created the saving functionality and add a button which adds that data to an array and inputs that data into the graph. The user inputs all this data.

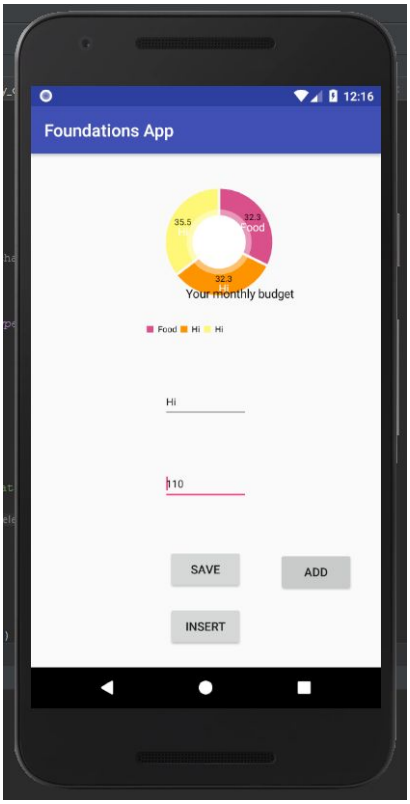

12:12
Foundations App
No chart data available.
Expense Type:
Cost: $
SAVE
ADD
INSERT


12:13
hello
50
SAVE
ADD
1 2 3 4 5 6 7 8 9 0
q w e r t y u i o p
a s d f g h j k l
z x c v b n m
?123


12:14
Foundations App
No chart data available.
Food
100.00
SAVE
ADD
INSERT


12:15
Foundations App
100
Food
Your monthly budget
Food
Food
100.00
SAVE
ADD
INSERT


12:15
Foundations App
50
Hi
50
Food
Your monthly budget
Food Hi
Hi
100
SAVE
ADD
INSERT


12:16
Foundations App
35.5
32.3
Food
32.3
Hi
Your monthly budget
Food Hi Hi
Hi
110
SAVE
ADD
INSERT

Retrospective

This was a long and difficult process. Getting the database table setup and the OnClickListeners as well as inserting data into the ArrayList that puts the data in the graph took a lot of time. This is the main functionality to the program and from here it will be creating changes to the UI as well as fixing bugs here and there. Overall I feel that this was a very successful iteration. Creating the main visual functionality to the graph and getting the user input into the graph makes this application much more useful. Overall I feel like these past two iterations were the most difficult part of this process. I hit a snag and was able to work through it to create the most instrumental part of the project. For the rest of this process cleaning up the UI and making this project more visually appealing will be the main focus.

Sprint #5

Sprint Backlog

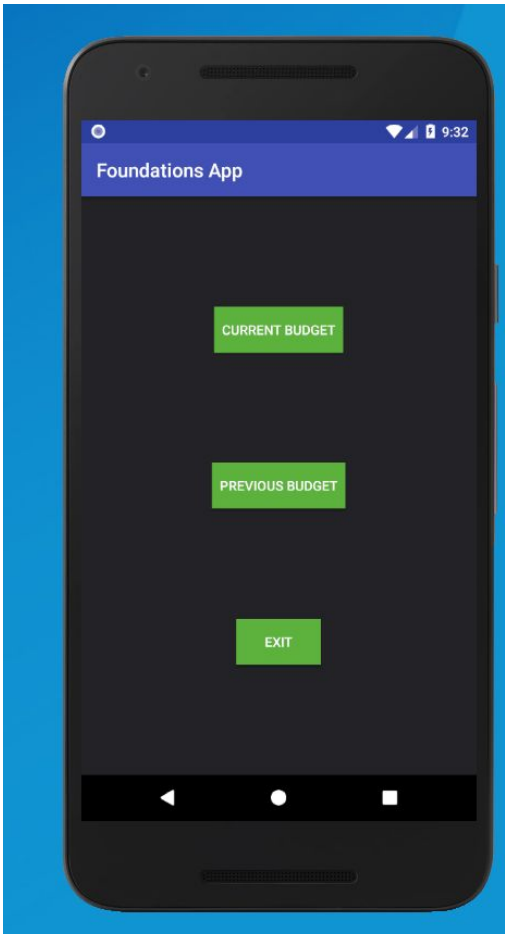
Story ID	Story / Task	Estimated Hours	Actual Hours
Improve UI		6	

Review

During this iteration I changed the UI slightly by removing an unnecessary screen and reimplementing some buttons. Overall the changes to the UI were less than I wanted them to be and I will have to continue updating the UI as I go along through these last 2 weeks.

Retrospective

I didn't get as much done as I would have hoped this iteration. I really wanted to clean up the UI and make it more user friendly and appealing but due to the constraints from my inputting of data it has been difficult to change the UI too much.


9:32
Foundations App
CURRENT BUDGET
PREVIOUS BUDGET
EXIT

Sprint #6

Sprint Backlog

Story ID	Story / Task	Estimated Hours	Actual Hours
Work with the input of data		6	

Review

This iteration I continued to work with the input of data and trying to make it easier and more streamlined. Working with a database has been difficult and given me a lot more challenges than I expected. Due to this the database table can only have data entered into it at the moment and is unable to be modified or deleted from. I was hoping to implement these changes but was unable to do so. I cleaned up the UI of inserting data and also changed how my data was sent to the database table.

Retrospective

Overall this project has been difficult. I am honestly a little disappointed in the amount of visible progress made within the project. The application seems very bare bones when it is run through because of some set backs I had within the project. I still feel like I completed a lot of work even though very little of it is visible in the application. Creating an application with a database table that updates user input information in real time was very difficult. If I could go back I would definitely change how the user data was stored and input. I would change the way the data was stored because of how much time and effort it took to implement the database as well as modify the graphing utility used so that it was able to accept the database table entries. The amount of work done with the database and modifying the graphing utility so they could work together was way more than I anticipated. I plan to continue working on developing this app and hope to get a more user friendly and functional app soon.