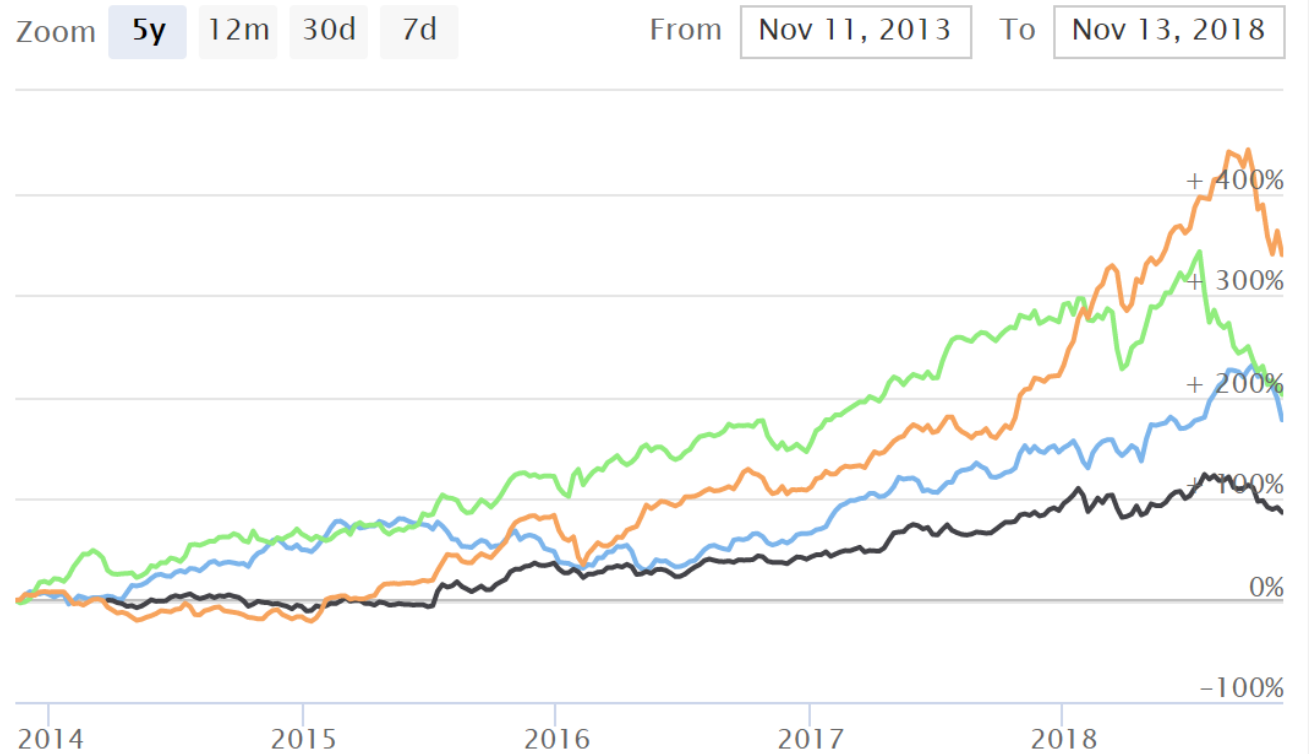




StockOverflow

## What is StockOverflow?

- A web app that allows users to view multiple stocks on the same graph to compare performance
- **Meaningful data** over raw numbers



# Key Features

- Compare performance of multiple stocks on the same chart
- Live updates over an hour and historical data for 5 years

## For Logged-in Users

- A stock simulation MMO game in which users can trade stocks with fake currency
- Ability to follow specific stocks. Preferences roam across sessions.
- Leaderboards based on the total value of stocks the user owns

# Development Decisions & Process

- Group and mini-team meetings
- Brainstorming
- Pair programming
- Code Integration on GitHub
- Documentation
- Tracking Changes
- Coding: combination of Scrum and Agile

# Beneficial Strategies

- Weekly meetings
- Timely integration of code
- Slack communication
- Mini-teams with divided workload
- Pair programming

# What didn't work :(

- Scheduling meeting times was difficult.
- Lapses in communication
- Coding individually
  - Especially when figuring out how to retrieve data from the API



**Prayaas** 9:37 PM

I'm on my way

Lyft is taking long

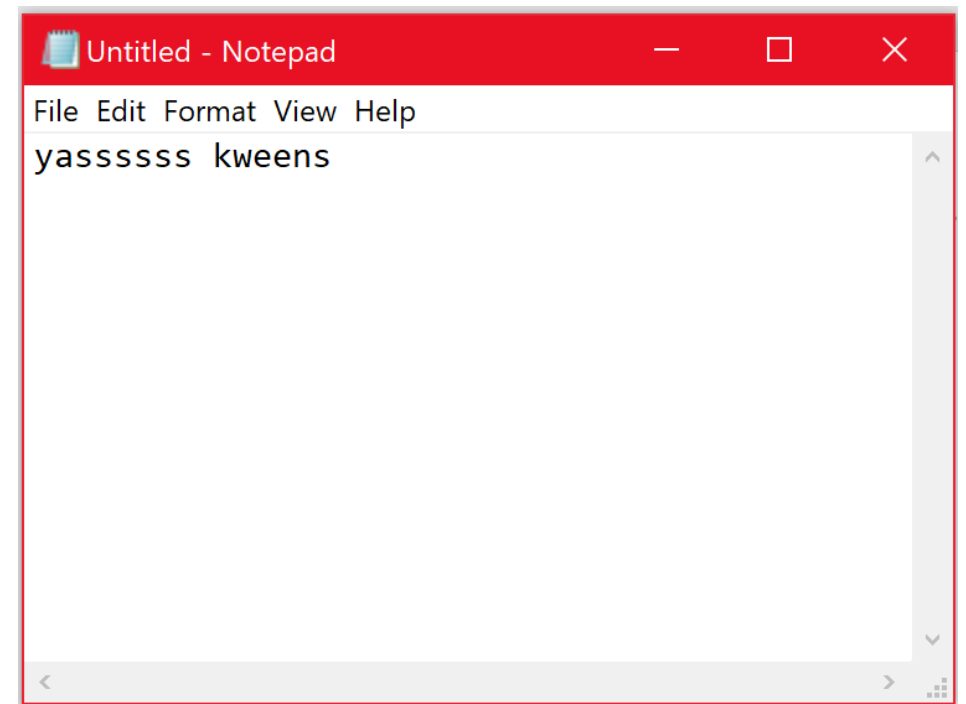
# Continuing Professional Development & Topics Covered

- JSONP
- **Node.js**
- Java
- **PHP**
- **Bootstrap: SASS framework**
- HTML, CSS, Javascript
- **Responsive Web Design**
- **Image Vectorization**
- **Economics**

# Tools and Software used

- Wireframing in Adobe Xd
- IEX API
- Highcharts
- Atom Text
- Visual Studio
- Eclipse
- Adobe Photoshop
- Adobe Illustrator
- Socket.io

Notepad (our **most** important tool)





# Courses Used



CSCI 104: Data Structures and Object-Oriented Programming



ITP 104: Web Publishing



ITP 303: Full-Stack Web Development



ITP 404: Modern Technologies of Web Development



BUAD 306: Business Finance



FADN 323: Fundamentals of Design Theory

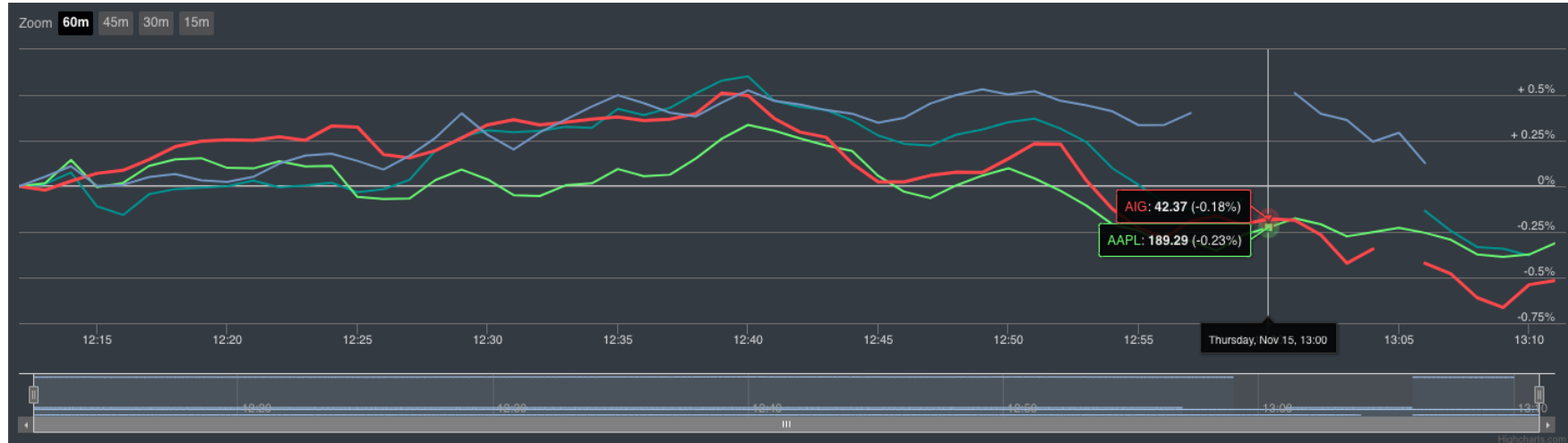
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FAD		
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FAM		
FAMI		
FAN		

# Data Structures

- Vectors
- Hashmaps
- Heaps
- Sets
- Tries

Rank	Username	Total Profit
1	ambrishp	\$1,827.37
2	admintest	\$1,387.54
3	vimanyuAwal	\$1,206.51
4	cherrychen	\$1,000.00
5	007thedog	\$1,000.00
6	notHotdog	\$1,000.00
7	LittleMonster	\$1,000.00
8	김지호	\$1,000.00
9	👉👉👉👉	\$1,000.00
10	hrideepatel	\$1,000.00
11	itsgwenyth	\$993.52



# Multithreading

- Updates the graph with **live** data of stock prices.
- Enables simultaneous addition and removal of stocks based on user interaction.
- Updates the list of stocks next to the graph.

```
var symbolString = "";

for (var j = 0; j < stockSymbols.length-1; j++)
{
    symbolString += stockSymbols[j] + ",";
}
symbolString += stockSymbols[stockSymbols.length - 1];

$.ajax({
    method: 'GET',
    async: false,
    url: 'https://api.iextrading.com/1.0/stock/symbols/' + symbolString + '?types=chart&range=5y'
})
.done(function(results) {
    datatext = results;
})
.fail(function() {
    console.log("error");
});

stockSymbols = Object.keys(datatext);
```

# Networking

- Used to access the IEX database of stock information.
- WebSockets (implemented through *socket.io*) with node.js on the backend for API calls
  - Enables simultaneous multi-user access to the data.

# User Login Functionality

- We offer basic guest functionality.
  - View a standard list of stocks to compare and demo the functionality.
  - View a list of stocks with relevant info *without* the ability to follow them.
- Registering unlocks:
  - Chart customization.
  - The ability to follow specific stocks.
  - Roaming preferences across sessions.
  - Taking part in the MMO trading game.

## LOG IN

Log In

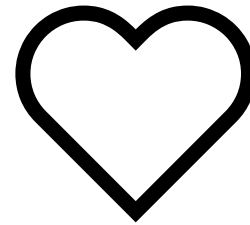
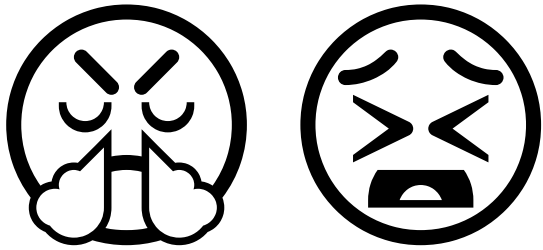
Enter information into all fields.

[Register as New User](#)

[Continue as Guest](#)

Demonstration

<https://bit.ly/2FjQo0W>



Questions?