

Introduction to Programming II

Project Log

Project title:	JUAN ITP2 FINAL PROJECT
Topic:	Topic 7: Extending the Apps
What progress have you made on this topic?	
<ol style="list-style-type: none">1. Did all the code design for the pay Gap by Job.2. Implemented a rough example to test the changes.3. Decided to add more functionality after scanning the dataset; now on hover on top of a circle would highlight all the circles in that sector.4. Implemented the last idea of point 3.5. Added PNGs on the background for further user usage.	
What problems have you faced and were you able to solve them?	
<ol style="list-style-type: none">1. Text position keeps changing after using other visualizations: fixed by adding a push and pop logic on the draw function of all the visualizations.2. Highlights by sector order malfunction, on hover over a: b, c, d glow, but on hover over d only d does. Fixed by saving the coordinates of all ellipses in an array and using the index of the main drawing function to call an async function that checks for the sector and highlights all the required ellipses.	
What are you planning to do over the next few weeks?	
<ol style="list-style-type: none">1. Do the candlestick code design and research2. Do a simple test on the code3. Evaluate for the feasibility of adding addons4. Integrate a working candle chart onto my project	
Are you on target to successfully complete your project? If you aren't on target, how will you address the issue?	
<ol style="list-style-type: none">1. My Gantt Chart had allocated the Gap by Job code + implementation and the CandleStick code design2. Gap By Job is totally done, I had no time for the candlestick design but it shouldn't take me a lot. I will try to work some extra hours over the 2 weeks to keep on track with my plan.	

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Project title:	JUAN ITP2 FINAL PROJECT
Topic:	Topic 8: Callbacks
What progress have you made on this topic?	
<ol style="list-style-type: none">1. Decided to reuse all the code from the midterm and extended it to work with candlesticks but with no success.2. Found some example online, with these I can get a clear idea on how to proceed on my candle graph chart.3. Got the chart working, it was quite a challenge to implemented it into the template as our application is full of other functionalities and has many parts interacting with each other.	
What problems have you faced and were you able to solve them?	
<ol style="list-style-type: none">1. Getting Data: the example found is 4 years old and uses the AlphaVantage API, since then lots of things have changed. On top of that my project uses Crypto tickers, not regular stocks. Solved by reading the AlphaVantage API.2. Layout problems: I use layouts on the app but the example uses a basic JS canvas, had to migrate all the position-related variables and functions to work using my layout.3. Graphing problems: The example used 2 constructors one for the data and another for the chart, as stated before this only works on a pristine canvas. Had to create custom functions inside the main JS file to draw the graph without using a custom constructor.	
What are you planning to do over the next few weeks?	
<ol style="list-style-type: none">1. Work on the crypto \$1 a day user interface. At this moment is very confusing.2. Use AlphaVantage API to fetch crypto prices instead of outdated CSVs from 2017.3. Use a more efficient drawing method as the current one slows down really fast due to over-drawing.	
Are you on target to successfully complete your project? If you aren't on target, how will you address the issue?	
<ol style="list-style-type: none">1. My Gantt Chart had allocated the CandleStick code + implementation and an additional implementation.2. I am pleased with the candlestick chart and I will leave the add-on for the future if there is time.	

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Project title:	JUAN ITP2 FINAL PROJECT
Topic:	Topic 9: Debugging Skills
What progress have you made on this topic?	
<ol style="list-style-type: none">1. Reused the crypto candle chart layout, and implemented a simple plot of circles.2. Created a new constructor to get only the data required.3. Plotted a line graph of any ticker for the last 365 days4. Created a plotting animation5. Animation optimized by using the P5 JS function <code>frameRate()</code>;6. Styled the info and finished with the extension.	
What problems have you faced and were you able to solve them?	
<ol style="list-style-type: none">1. Since I decided to reuse the graph but with 365 days instead of 15 I had to make several changes to axis labels.2. Due to the animation optimization I came up with new logic that uses the <code>FrameRate</code> to display the animation, this also came with a lot of testing specially in the draw function where a reverse loop with variable conditions had to be made.3. Redo of the profit calculation to work with the new animation. Due to the nature of the new approach most of the profit calculation had to be done again.	
What are you planning to do over the next few weeks?	
<ol style="list-style-type: none">1. I want to make another simple extension, after thinking about adding more to the charts I have decided to just go with a completely new extension instead.2. Next weeks focus will be on the general user interface, fixing bugs and code review	
Are you on target to successfully complete your project? If you aren't on target, how will you address the issue?	
<ol style="list-style-type: none">1. My Gantt Chart had allocated the Investment extension idea + implementation, a reflection on the progress and an extra extension and/or UI design.2. I am happy of the progress made so far, but still will like to add at least one more extension and some UI improvement.	

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Project title:	JUAN ITP2 FINAL PROJECT
Topic:	Topic 10: Testing with Users
What progress have you made on this topic?	
<ol style="list-style-type: none">1. After some youtube inspiration, I have decided to add a math fractal visualization.2. Researched algorithms to create a Sierpinski gasket and a fractal tree.3. Created the new visualization and tied both fractals to the same slider so the user can see the changes on both.4. Did a complete UI and design overhaul for the entire app5. Added custom logic inside all the extensions so they display an overview of what they do and how they work.	
What problems have you faced and were you able to solve them?	
<ol style="list-style-type: none">1. Fractals Slider: Due to both fractals using the same slider the gasket glitched out and did an infinite loop. Fixed by adding a mapping for the values needed.2. Fractals Toggle: Both fractals would be displayed at the same time side by side, but this led to overlapping between them, fixed by adding state logic so only one would be displayed at any time.	
What are you planning to do over the next few weeks?	
<ol style="list-style-type: none">1. I want to research a new extension related to maps, but don't know if my work would let me.2. Next week I will be focused on answering the questions of the final submission of the test, and commenting on my code.	
Are you on target to successfully complete your project? If you aren't on target, how will you address the issue?	
<ol style="list-style-type: none">1. My Gantt Chart had allocated an Extra add-on implementation, a UI implementation, and a Code review for these 2 weeks.2. I have completed all the tasks for the weeks, I should be on track to finish on time.	