Criterion A - Planning

1. Description of Scenario

The client for this project is the student's father, Alex Kohav, who is currently interested in researching and understanding (assessing the trend in pricing based on historical data) stock trade/investments, and so the product to design is a program that can analyze the short term and long term trends of five public stocks of Alex's choosing.

The advisor for this project is Julia Kohav, who already holds extensive experience in software engineering in addition to management of software engineer projects, so this will aid in the student's advice of criteria for the end product of this project.

2. Proposed Product Rationale

The main rationale for creating this program is that it enables my father to gain more insight into the stock markets he is curious about, and hopefully help convince him whether or not he wants to pursue investment into one of the five publicly traded markets. In consultation with the client (*appendix, first consultation*), we have determined the following markets to analyze with this product: Hewlett Packard, Amazon, Google (Alphabet), Amazon, Tesla. In consultation with the advisor (*appendix, second consultation*), the student determined the proper foundations to base the product solution on (i.e. flowcharts, screen sketch) and how to go about completing the actual coding aspect of the project within his abilities of programming.

In accordance with the project requirements, discussed with the computer science teacher, the student has determined that the data for this project is available and accessible (via NASDAQ), the hardware required to run the software is accessible by the student via BlueJ Java IDE, and that the skills for coding this project are within the student's capabilities.

3. Product Success Criteria

I.   Program ability to load a .csv file to a main() function.
II. Program ability to read through/process a stock historical data .csv file and create an

ArrayList.

III. Program ability to read and calculate the average in a given period of data of the current selected company (i.e. last month or last year)

IV. The StockAnalyzer's proficiency in reading and determining the lowest trade day in a given period of data of the current selected company (i.e. last month or last year)

V. Program ability to read and determine the highest trade day in a given period of data of the current selected company (i.e. last month or last year)

VI. Program ability to switch between the selected companies by the user.

VII. Program ability to switch between each completed analysis option in the menu simply by the user clicking the "enter/return" keyboard.

VIII. Program ability to "clear" the screen between every interaction and menu selection, for clarity and intuitiveness.