

School of Computing, Science and Engineering

Software Evolution

CRN: 50256

Maintaining and Evolving a Software System

Assignment type: Group Project

**Group 1**

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**INTRODUCTION**

The aim of this assignment was to carry out Software Evolution practices on a Security Broker System. The requirements were to study the existing implementation of the system, document it by commenting, uml diagrams and make available a user guide for how the system is to be used. Furthermore, we were tasked to implement a more realistic order execution using the strategy of not allowing users to buy or sell security positions that were below or above the current market value. Finally, the project requirements specified an implementation of a security class where all data associated with the class will be encapsulated. This class would also help when improving the system’s output to users. This report will detail the process of the requirements implementation, from the project time line where group members were allocated task with deadlines, the documentation of the system using PEP 8 style guide for python, the diagrams of classes that show relationships and the overall architecture of the system, a detailed explanation of the user guide to the system, evidence of unit testing, to a conclusion of the group’s reflection on the Software Evolution process.

**PROJECT PLAN**

**The first sprint** for the project was focused on the team understanding the system and its implementation, this was carried out within the firsts 2 weeks followed by the documentation of the classes. The next task was to draw the uml diagrams for the system, this was carried out simultaneously as implementing a realistic order execution. The timeline was from the 12th – 31st of March.

**![A screenshot of a social media post

Description generated with very high confidence]()**

**The second sprint** members were tasked with implementing the security class and improve the system output to the sole and when the file is saved. Time line 1st – 16th of April 2018. Refer to [Appendix A](#_Appendix_A:) for trello board image

**The third sprint** members role was to come up with ideas to improve the system, other functions that may be required. Also, task was given to member to make the ‘after’ uml diagrams and use cases and the overall system architecture diagram. Time line 17th – 27th of April 2018. Refer to [Appendix B](#_Appendix_B:) for trello board image

**Final sprint** given that all requirements have been met, members begin to write report for project. Time line 30th of April – 8th of May. Refer to [Appendix C](#_Appendix_C:) for trello board image

# **Appendix**

# Appendix A:

![A screenshot of a social media post

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# Appendix B:

![A screenshot of a cell phone

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# Appendix C: