

# **SOFTWARE ENGINEERING G6046**

## **GROUP PROJECT REPORT - 2021**

**Benson** Oreoluwa (Ore)

**Doan** Tran Khoi Nguyen (Nguyen)

**Dong** Giulia (Giulia)

**Nanthakumar** Rashnah (Rashnah)

## I. INTRODUCTION

This report is part of the coursework for the Software Engineering (G6046) module which is part of the Computer Science course (G400) and it entails the procedure and reflection on how the project requirements were fulfilled. The subsequent report will demonstrate how the team's pre-existing programming skills, interpersonal and teamwork skills were made use of.

## II. PROJECT PROCESS

After a brief introduction, the first step was to have a walkthrough of the guidelines that our customers had set for the project and apprehend what the team had to specifically work on which in this case was: follow an organized documented procedure (Agile development process), code and teamwork. Following several discussions, a general plan of how to tackle the given specifications was brought forward. This was done by first producing a design plan in the form of PERT chart for the entire project (reference pert chart), this chart was the blueprint the team had to follow to complete everything, and it helped to have an organized vision of what should be done in order to get the final product. Further on, in the design process, class diagram slides and UML class diagrams were made in order to have a clear idea of the object variables presented in the specifications and what classes and methods should derive from them. This also made it easier to have a clear idea of how to link all the code together. Additionally, a plan made of four sprints was created:

- 1)Design
- 2)Code
- 3)Testing
- 4)Putting together documentation

Following the design process, the programming process was originally marked by the division of the classes between all team members (originally: ). Although, as the software was being developed thanks to several discussions during meeting calls and via chat, the members helped each other to put the code together. Each class was being worked on independently at the

same time and meeting discussions helped to bring light to issues that needed to be fixed or different ways of dealing with the code in order to put all the pieces together correctly to make sure that the final product works efficiently.

The last stage was organizing the documentation collected throughout the whole project and writing a report containing everyone's thoughts and reflections about what could've been done better and things that we've learnt. Thoughts that were shared in the last team meeting while reviewing the work we had created and the path we had taken to get there.

The documentation entails the [PERT chart](#), [the UML class diagram](#), [the class diagram google slides](#), [the team meeting records](#), the agile method reports and this report. (Although the documentation has already been linked here, additionally at the end of the report the link has been copied and the zip file also contains all of the documentation-in case the links don't work).

### III. HIGHLIGHTS AND THINGS WE'VE LEARNT

While reflecting on the project we debated on different matters, like what could've been done differently in order to make the final product even more competent and what we learnt that we could put to use in future project like these (since relatively this was our first time experiencing a team assignment like this).

First and foremost, it helped to solidify our knowledge of different programming features and how they can be used to make things easier. *For example: String is a great way to name objects or ArrayList<> is great when making list of objects and everything else.*

Moreover, we've learnt that structuring code well when working as a group is important so that it is easily readable for everyone to work on it and how important time management and generally good organization are, in order to make sure that the project is not poorly executed, is well documented and to start working on things as soon as possible to avoid doing things last minute.

Teamwork was also a core skill to be developed through this task. In fact, everyone was able to help each other in order to fix any type of trouble and when needed. Although it was relatively hard to communicate online, all team members were easy to talk to and to collaborate with. Team members always discussed different ways to handle things and mutually agreed on others to come up with good solutions.

### IV. ISSUES

Certainly, it is not unusual to be faced with obstacles and troubles while working on a project like the one we were assigned to. Given the exceptional circumstances due to Covid-19, as a team we were not allowed to have in person meetings. Therefore, we were able to agree as a team that collaborative programming without in person meetings is not a great idea and makes it slightly more difficulty to work as a team. In addition, at times agreeing on meetings was hard

due to different reasons, like different timetable schedules or university assignments for other modules. Interface

## V. PEER MARKING

## VI. ADDITIONAL LINKS

PERT chart: <https://my.visme.co/view/y4mmyg84-3ezl334my9nql0q1>

Diagram slides: <https://docs.google.com/presentation/d/1m6xKxwepNhOG-nUn04sDi7jV1IE7m7-Ohylng2uweg/edit?usp=sharing>

UML diagram:

[https://drive.google.com/file/d/1R\\_Fnnf0VAbjEONQCggs3wVpjpwTPeTN7/view?usp=sharing](https://drive.google.com/file/d/1R_Fnnf0VAbjEONQCggs3wVpjpwTPeTN7/view?usp=sharing)

Team meeting records:

<https://drive.google.com/file/d/1rG2Q8bXSuCGdOeG3YQmuO78voYm77iF8/view?usp=sharing>