Advanced Software Engineering

Group 1

PROJECT PLAN

1. Organisation plan

1. **Development methodology**

1.1. The project will be delivered using agile software engineering principles. A slight variation of Scrum is chosen as the framework for developing this project. If possible, Test-Driven Development techniques will be used.

1.2. Github was chosen for version control purposes in code development.

1.3. Google drive was chosen as a documentation sharing and editing tool since it allows all users to share the same platform. Once a sprint is complete, the final version of all documents is uploaded onto Github.

1.3.1. The GitHub private reposiory used (<https://github.com/ItsTheRai/SoftwareEngineeringProjectAndroid>) contains 2 folders: Documents and app.

1.3.1.1 The Documents folder contains all project development documents including the Project Plan, the Sprint Backlog and a folder containing data about each sprint. Each sprint folder contains the Sprint Backlog, Sprint Overview and Sprint retrospective documents and 2 folders that contain system design and architecture documentation.

1.3.1.2.The app folder contains all the project development files.

2. **Roles**

2.1. *Martin Berger* acts as *Product Owner* and is responsible for managing the project backlog, offering feedback to the team representative and answering questions about the project. If Martin Berger is unavailable, the team leader decides(together with the development team) on how to prioritise work.

2.2. The *development team* consists of 5 members : *Louis Limon, Winson Cheung, Luke Dove, Mohammad Montazerian and Arsalan Merchant*. The team is divided into 2 groups: front-end and back-end according to the abilities and interests of the team members. The front-end team consists of Luke Dove and Mohammad Montazerian, back-end : Winson Cheung, Arsalan Merchant and Louis Limon. All development team members are responsible for the development, testing and documenting of their assigned tasks but they are not bound to their group - tasks can change depending on different factors(deadlines, priorities etc). The group members work together to plan and produce the required product and both groups communicate regularly through meetings (on- and offline) to make sure they are meeting their targets.

2.3. *The Scrum master (and team leader)* is *Raimonds Grismanausks*. As scrum master he is responsible for making sure the development team and product owner (Martin Berger) are connected, that the team oblige to Scrum principles and helping the developers with their tasks and support if necessary. His other responsibilities include making sure the team is well organised, tracking the progress and challenges the developers are facing and organising and running regular team meetings and documenting the development process as well as managing the project and document repositories.

3 **Meetings**

3.1. There is one weekly meeting where the development team and the Scrum Master discuss deadlines, organise work and where both development groups can coordinate and prioritise their work.

3.2. More regular smaller meetings (work sessions) take place every (other) day where developers discuss issues, share information and review each other’s work.

3.3. If the Product Owner has made changes to the product backlog or has given new feedback or guidelines in regards to the project, a meeting is organised by the team leader to break the new requirements down into tasks, prioritise them and distribute responsibilities.

**2. Conflict resolution**

Each group and team member has specific tasks that they are responsible for and that have been agreed upon prior to the start of each sprint. If a group member is unable to complete this task and this task is essential for delivering the product, Scrum allows for re-distribution of work via a product and sprint backlog, where task are organised according to their priorities.

The team should be self-organising - the tasks each member has to complete depends on the priorities of the product owner and also the speed of production and time remaining, thus tasks with higher priority can be shared between team members to ensure their completion i.e if the back-end group are behind on their production, and their work has higher priority, group members from the front-end group will discard their own work and assist them to make sure the deadlines are met.

1. **If a team member is incapable of completing a task where it is not his fault i.e. due to illness, mistakes in planning, technical difficulties, other commitments**

Work is redistributed among other team members if necessary.

**2. If a team member is incapable of completing a task where it is his fault i.e. not enough work put in, not showing up to meetings etc.**

If a team member is behind on his deadlines, marks are taken off his peer assessment. The amount of marks depends on the total weighting of the deliverable and the amount of work required to finish it. This is determined through a group meeting. Work is redistributed among the group members to ensure the product can be delivered by the end of the sprint.

**3. If a team member leaves the group**

If possible work should be redistributed between the remaining team members to meet the deadline. If that is impossible, the Product Owner is contacted by the Scrum Master to discuss an extension or a release of a different version of the product.

4. **If the team cannot come up with a solution to a conflict**

The team leader is responsible for managing tasks and workflow of group members to reach the desired goals, and mark reduction if necessary.

**3. Peer assessment plan**

All team members start off with an equal amount of marks. These marks are reduced If a member of the team is unable to complete his tasks and contribute to the project due to lack of motivation and unwillingness to contribute. Marks are reduced in proportion to the overall weighting of the derivable and the amount of work done i.e. for a 6 person team if a team member does no work and a deliverable is worth 10% of the overall grade, that team member gets a reduction of 10% from his final grade and the other team members’ grade gets increased by 2% each .

If one of the team members raises an issue with another member, a group meeting is called where the issue is discussed and marks subtracted if agreed upon. The acquired marks are redistributed equally amongst other team members.

If the team cannot come up with a fair solution that every team member agrees with, the team leader is responsible for mark distribution.