

Updates

Updated Requirements

Whilst implementing the required functionality for assessment 2, we made a number changes to the original set of requirements. These changes were proposed during group meetings and agreed upon by the group after deliberation. When deciding on the changes, we referred to the brief, use cases and our discussion with the customer in order to keep our requirements as close as possible to the original set. This section will discuss requirements that regard the implementation of the map, conflict resolution and unit allocation features. If the requirement has been changed, there will be an explanation of the changes made for the new requirement.

- Requirements that have been altered will be colour coded purple.
The new requirement will follow below (colour coded blue).

F9.3 (Old)	If an attack is unsuccessful, then one or both gangs shall see a loss of gang members but no sector control changes shall occur.
F9.3 (New)	If an attack is unsuccessful, then the attacking gang should lose all units used in the attack.

For game design reasons we decided that, when conflict occurs, one side should lose all of the units they used in the conflict. This change was made primarily to increase the pace of the game so that the game board will not stagnate and instead users will be forced to take more of a risk gain an advantage. This decision was also made in order to make victory and defeat more discrete, a total loss of units makes defeat more clear to the user and saves them the effort of trying to calculate if their attack was worthwhile.

F11.1 (Old)	The game shall display a map of the UoY campus, split into a number of unequal sectors each representing a campus landmark, along with information about the current state of the game.
F9.3 (New)	The game shall display a map of the UoY campus, split into a number of sectors, represented by square tiles. Some of the sectors shall be situated on university landmarks. The map shall display information about the current state of the game.

The map has changed as a result of difficulties we encountered in designing and programming the GUI. During production we found that creating the map was of high priority as a large proportion of the programming could not go ahead without certain features of the map design being finalised. To avoid this bottlenecking, we used a piece of software called “Tiled”, which helped us to quickly create the map and made the programming relating to the map easier. However we decided to use square tiles to represent the sectors since “Tiled” would not be useful for creating a map with unequal sectors. Due to this change in design, we decided that, on a map composed of square sectors, it would no longer be feasible to have each sector represent a landmark. There were simply too few ‘Landmarks’ to occupy all sectors on our map. We decided this could be used to add depth to gameplay in the future, making certain landmark tiles more desirable (e.g. more defensible or more beneficial to own).

Methods, Plans Update

In Assessment 1, we mentioned that our software team would be using the Scrum methodology [1] to manage our work. We adhered to this framework during Assessment 2, keeping the length of our sprints to one-week long. However, any issues that were left unresolved by the end of a given sprint were discussed and added to the list in the following sprint. We did this to suit our team's natural way of implementing the game – resolving any problems when and where we could.

Also, in assessment 1 we discussed how we will organise our team: where the scrum master will facilitate any discussions within meetings, the product owner who will be responsible for organising and clarifying any tasks and finally the team leader who will lead any group discussions based on their skillset. In assessment 2, we decided to reorganise the team: the scrum master was nominated the responsibility of the product owner due to the small size of the team and the familiarity of team members to the scrum methodology. This means if any more organisation related problems arise in future assessments, the team would have to take discuss these issues as soon as they can and take appropriate measures so that the team does not fall behind schedules.

The scrum methodology was used to ensure all team members flexibly adapted to the workload as the project progressed. Meaning, team members with a wider skillset and background with java programming offered majority of the development work. Thus, other team members were designated to work on the documentation of the project. This allowed us to make progress efficiently as members of the team could focus on completing tasks they were more suited to.

The team continued to use all the tools stated in Assessment 1. Some tools become relevant during implementation e.g. GitKraken – which helped team members manage and easily visualise any features that were to be programmed. Tiled software [2] was used to build the map for the game because it was easy to integrate with the game library of our choice – libgdx [3] as well as its ease of use. All unit testing was carried out using JUnit testing framework [4] which could be run regularly to test our code. However, parts of the system like the GUI could not be tested using unit tests. We continued to use Lucidchart [5] to draw our UML diagram.

Bibliography

[1] Scrum.org, "Scrum," [Online]. Available: <https://www.scrum.org/>. [Accessed 21st January 2018]

[2] mapeditor.org, "Map Editor," [Online]. Available: <https://www.mapeditor.org/>. [Accessed 21st January 2018]

[3] "Libgdx," 2013. [Online]. Available: <https://libgdx.badlogicgames.com/>. [Accessed 21st January 2018]

[4] JUnit. [Online]. Available: <http://junit.org/junit4/>. [Accessed 21st January 2018]

[5] Lucidchart, Lucidchart, 2017. [Online]. Available: <https://www.lucidchart.com/>. [Accessed 21st January 2018]

Risk Assessment and Mitigation Update

This page will discuss the reasons we have kept the same risk monitoring and mitigation system and provide reasons for some risks being added, changed or removed. The updated risks document for assessment two can be found at:

<http://sidmeiers.me/documents/Risk2.pdf>

The old risk document can be found at:

<http://sidmeiers.me/documents/Risk1.pdf>

We have decided to keep the risk monitoring and mitigation system the same. After discussion, we have decided that it is appropriate to continue using the existing approach towards risks as it has remained an effective system throughout assessment 2. With the current system, we can continuously update and change risks according to need. The existing system has been effective in reducing risk likelihood. All changes stated below, have been found using the current system. When assigning risks to group members (Owners of Risk), we found that the risk monitoring was separated fairly and all group members were comfortable with and aware of the risks they were monitoring. Since there are no outstanding problems with the risk system, we have no reason to make significant changes and will continue to use it throughout the rest of the assessment.

Risk Addition:

Addition of risk 5: The previous risks did not include a risk for version control issues that could arise. We decided that a version control risk should be added, as it has been a relevant risk to monitor throughout assessment 2.

Risk changes:

Change of new risk 9: In the original risk, we outlined how we may not have the capabilities with the chosen engine (libgdx in this case), restricting us to only completing certain requirements. We changed the risks as we feel we are more aware of the extent of our capabilities as a group and the engine we had chosen for assessment 2. The risk would be the product of a lack of certain skills, rather than unfamiliarity with the engine.

Risk removals:

Reason for removal of old risk 4: After working with libgdx (our chosen engine) we have decided to remove this risk as we have had no issues with the engine and are confident that the engine will remain stable.

Reason for removal of old risk 9: This risk has been removed as we have had no issue with communication. If one medium of communication goes down, there are many alternate mediums that we could switch to. So the likelihood of the risk manifesting is negligible. The problem that this risk presents has not occurred during the time of the project this far and it is severely unlikely that we would all be without communication.