

UNIVERSITY OF YORK
DEPARTMENT OF COMPUTER SCIENCE

ENG1 Group Assessment 2 Team 1

Auber

Change2.pdf - Change Report

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Change Management

After the Assessment 1 presentations, we decided as a team that we wanted to continue development of Team 4's Auber game in Assessment 2. We chose Team 4 as their game seemed well implemented with well documented code, and we figured that'd make it a good project to take over.

Upon choosing this team, we emailed Team 4 and asked them for access to editable copies of their previous deliverables, since only non-editable versions were on their website. While waiting for a response, we went onto their GitHub Repository (<https://github.com/ENG1-Group4/Auber>) and downloaded the source code of their game. This allowed us to then upload it to our own GitHub (<https://github.com/ENG1-Eclipse/Team1-Game2>) so that we could begin making changes and build upon the old version of the game. We also took a clone of Team 4's original project website so that we could adapt it to our own team, ready for Assessment 2.

Team 4 then replied to us with a link to a shared Google Drive folder containing editable copies of their Assessment 1 deliverables, along with all the assets required for the game, and their UML diagrams. These documents were uploaded to our own shared Google Drive folder, where they were renamed ready to be updated with Assessment 2 content. A summary of the updates made to Team 4's Assessment 1 deliverables and documentation can be found below.

Changes

Below are a summary of the changes we have made to Team 4's Assessment 1 deliverables. Updated versions of these documents can be found on our website, here: <https://eng1-eclipse.github.io/website2/deliverables/assessment2/>

Requirements

Several changes have been made to the Req1.pdf file, mainly to reflect new or changed requirements for Assessment 2. Here is an outline of the changes:

- In the introduction section, there is a new paragraph talking about how we have taken over these requirements and found that some changes were required as they were either new, or the previous team had missed some that we had been told were required.
- UR_MUTE and FR_GAME_MUTE have been added as a new requirement as we were told this was required in Assessment 1, but the previous team had not specified it.
- UR_DEMO and FR_GAME_DEMO have been added for the same reason.
- UR_DIFFICULTY, UR_POWERUP and UR_SAVE have been added to the user requirements, as these are new requirements specified for Assessment 2. These lead to the functional requirements FR_GAME_DIFFICULTY, FR_PLAYER_POWERUP and FR_GAME_SAVE also being added, which specify the technical requirements implied by the new user requirements.
- NFR_PLAYABILITY_ACCESSIBILITY has been added as a non-functional requirement as we were told this was important in Assessment 1. It ensures that a

wide range of players will be able to play the game, and will not be disadvantaged by some aspect, e.g. colourblindness.

Abstract and concrete architecture

The only notable new additions to the architecture are new classes added to meet updated requirements, such as PlayerDemo, PowerUp and Smoke. This called for us to generate new abstract architecture diagrams to fit with/replace the project's existing and well defined current ones. We felt no need to alter the game architecture after inheriting it as it was easy to follow and add to, with no real ambiguity. To keep consistency with the existing document we made sure to use tools listed by the original group to generate our necessary additions, namely draw.io. It is also worth noting that we added a few new requirements not explicitly mentioned in the brief which were listed and linked to different areas of the architecture at the bottom of the document, such as the PlayerDemo & DifficultyScreen. The UML showing the screen system was also updated in order to display the new screens we have implemented.

Methods and plans

Due to the change in management approaches and the tools we are using, several changes were required to the Plan1.pdf document. Here is a summary of the changes that we have made:

- In the third paragraph, we have replaced 'greenfield' with 'brownfield' as they type of development taking place. This is because we are no longer creating the game from scratch, but building upon the work of another team. We also slightly updated the logic that follows this - while we have some experience now, this is new code to us, so we still need to learn what's going on. No other methodology changes were required, since they still apply to our group.
- In the tools used section, we removed references to group members being overseas, but we retained that argument that cloud based storage was a necessity given that we're still based in different locations.
- We removed references to Trello, as we are not using it in our development process. Instead, this has been replaced with information on how we are using Google Drive to manage our team.
- We have extended the notion of no experience with LibGDX with an exception for using it in Assessment 1 - although we have some knowledge now, we are by no means experts in it.
- Replaced references and justification of using Visual Studio Code with IntelliJ IDEA, since this is the IDE we have decided to use. We have also added our reasoning behind this, along with the alternatives considered.
- No changes were required to the Team Organisation section of this document, since we are using a very similar methodology.
- We have removed their version of the Gantt chart as it did not extend into Assessment 2. We also have not been provided with an editable version of their chart, so we will need to remake this. A link to our website containing our Gantt charts has been added. We also removed a reference to Trello here too, since it does not apply to us.

- We have added our own paragraph about the critical path to replace their section on milestones, since we have gone for a different method to approaching this. We have talked about how an explicit critical path was not necessary as this information can be inferred from the details in the Gantt chart.
- We have removed their section on Plan Evolution and replaced it with a reasoning for updating this plan and a link to the website. This is since we will be detailing the evolution of our plan on the website, rather than within the document.

Risk assessment and mitigation

Since the risks have changed very little since Assessment 1, not many changes have been required to the risk assessment document. The small number of changes we have made are:

- Updated the last introductory paragraph to talk about updating the risk assessment for Assessment 2, since it previously spoke about reviewing it in Week 5 of the first assessment.
- Replaced references to Trello throughout to Google Drive, since this is what our group is using to keep track of progress of the assessment.
- Similarly, replaced references to Discord to Messenger, since this is what our group uses for communication between team members.
- Update the risk of Zoom going down to talk about alternatives that are available, such as Google Meet, since we do not have the previous Discord option for our group.
- Added R17 - the risk of unexpected bugs with Java or a library we're using. The previous group had missed this from their report, but we think it is necessary to mention as it could have a significant impact if no workarounds can be found.
- Added R18 - the risk of the customer becoming ill or otherwise unavailable. Again, the previous group had missed this from their report, but we have added it since it is highly likely to occur, since the customer is a person, just like us. Therefore, we think it's necessary to add, along with the mitigation of being well prepared so it will hopefully not affect us too much if we can't get a quick customer response.