

Change Report

Group 1 Cohort 1

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Introduction

To effectively manage the Assessment 1 deliverables, documentation and code that was inherited from Group 3, we maintained our original processes, tools and conventions. Our combination of the Agile and Waterfall methodologies proved to be a productive workflow for the team, so we continued with this hybrid model. Regular group meetings were held weekly to ensure continuous progress updates and that every team member was contributing effectively.

We continued with the same set of tools we had used since the beginning of our project. Git was used for our version control system allowing us to keep a history of changes and collaborate easily. Alongside Git we created a document to record any implementation changes which specified what was changed and any new architecture implemented. Jira was used to manage tasks and workflow, allowing for continuous development. By updating this in our weekly meetings we could prioritise work and easily track progress. Google Docs was used to create documents, which allowed for collaborative creation and easy access for all team members. Finally, we continued to use both LibGDX and Tiled to develop the game, fixing any remaining issues and adding any requirements that the previous team had overlooked.

Change in Requirements

Original: <https://therealemissions.github.io/uoy-eng1/pdfs/Requirements.pdf>

Updated: <https://charliepiper.github.io/ENG1-2-web/uoy-eng1/pdfs/assessment2/Req2.pdf>

After being given additional requirements and talking to the client for more clarification to ensure none of the new requirements were misunderstood we came up with the following new set of requirements.

User Requirements

ID	Description	Notes	Priority
UR_LEADERBOARDS	Users must be able to see the most successful scores and the name of the user who scored it.	You must be able to see the name and score of the top ten playthroughs of the game.	Must
UR_STREAKS	User must be able to collect streaks while they play the game.	At least 3 streaks must be present in the game for the user to aim to complete.	Must
UR_SCORE	User must study to pass his exams.	Users can catch up on missed days by studying more on other days.	Must
UR_COLLISIONS	User should not be able to walk through things that you can't in real life.	For example, buildings walls should now cause collisions preventing the user from walking through it.	Should

Functional System Requirements

ID	Description	User Requirement
FR_LEADERBOARDS	The system must store the score and the name of the top ten playthroughs of the game.	UR_LEADERBOARDS
FR_SCORE	The system must adjust the score by how many times you study and if you go more than one day without studying you will fail your exam.	UR_SCORE

Change in Architecture

Original: <https://therealemissions.github.io/uoy-eng1/pdfs/Architecture.pdf>

Updated: <https://charliepiper.github.io/ENG1-2-web/uoy-eng1/pdfs/assessment2/Arch2.pdf>

We continued to build off the OOP-based architecture when adding new features to the game. The new classes added the following functionality:

Leaderboards

- will track the highest-scoring playthroughs
- create a leaderboard and add a score to the leaderboard
- write to and read the leaderboard from a saved file

PlayerStreaks

- add streaks to the game and check how many times the activity has been performed
- reset streak count if the activity hasn't been performed

PlayerHealth

- responsible for the playerHealth stat bar
- increase and decrease the health of the player based on the activity performed

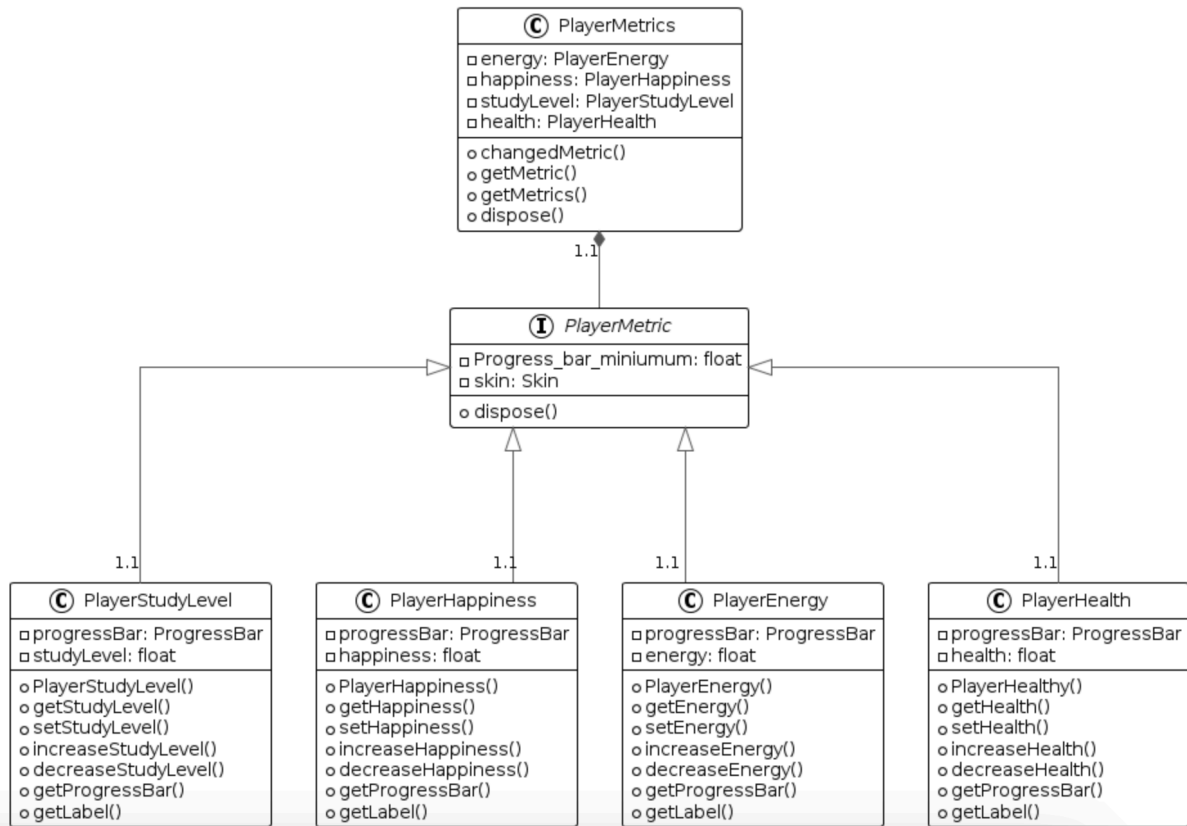
CharacterScreen

- shows the character selection options
- allows a user to select a character which he will then play as throughout the playthrough

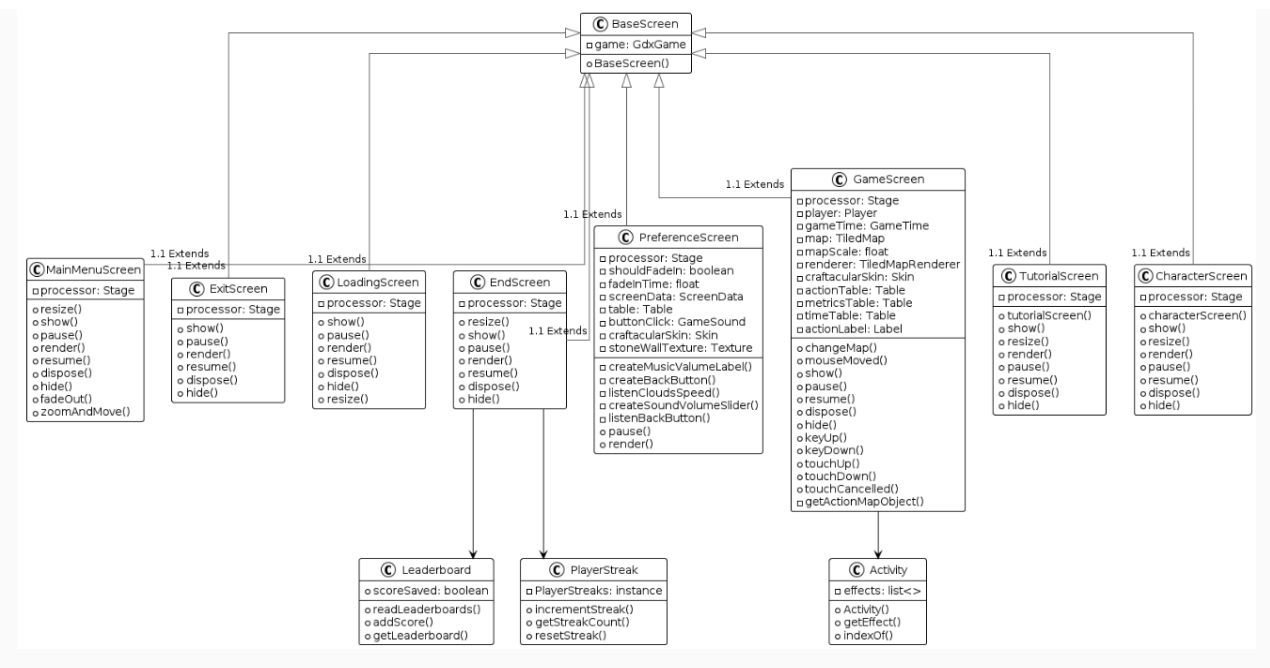
TutorialScreen

- responsible for explaining the game to the user such as how to interact and move

The two sections of the class diagram that have changed is the 'PlayerMetrics' and the 'BaseScreen' sections, below are the updated sections of the UML diagram:
 PlayerMetrics:



BaseScreen:



Change in Method Selection And Planning

Original:

<https://therealemissions.github.io/uoy-eng1/pdfs/Method%20Selection%20and%20Planning.pdf>

Updated: <https://charliepiper.github.io/ENG1-2-web/uoy-eng1/pdfs/assessment2/MSP2.pdf>

In terms of software engineering methods, we have used a similar approach to the previous team as it was efficient and organised. However, in terms of the tools, we switched Trello and Discord to Jira and Whatsapp. Having worked with Jira before, our team had a good understanding of the software and a base set-up that was ready to use. We use WhatsApp as our main mode of online communication and have in-person meetings twice a week to keep the project in due course.

In terms of team organisation, we have chosen to adapt by combining both the previous and current teams' strategies. We adopted the Agile scrum methodology with the following designations :

- **Development Team:** This is further divided into implementation and testing teams to organise the tasks in a better manner. This includes Tom, Chris and Charlie carrying out implementation, and Shirin and Ella testing the game.
- **Scrum Master:** Tom leads as the scrum master by organising team tasks and ensuring timely completion of the different phases.
- **Product Owner:** The main goal of this role is to ensure that the product is headed in the right direction. For our team dynamic, we did not see the need for one person to hold this responsibility and thus share it by reviewing each other's work during meetings.

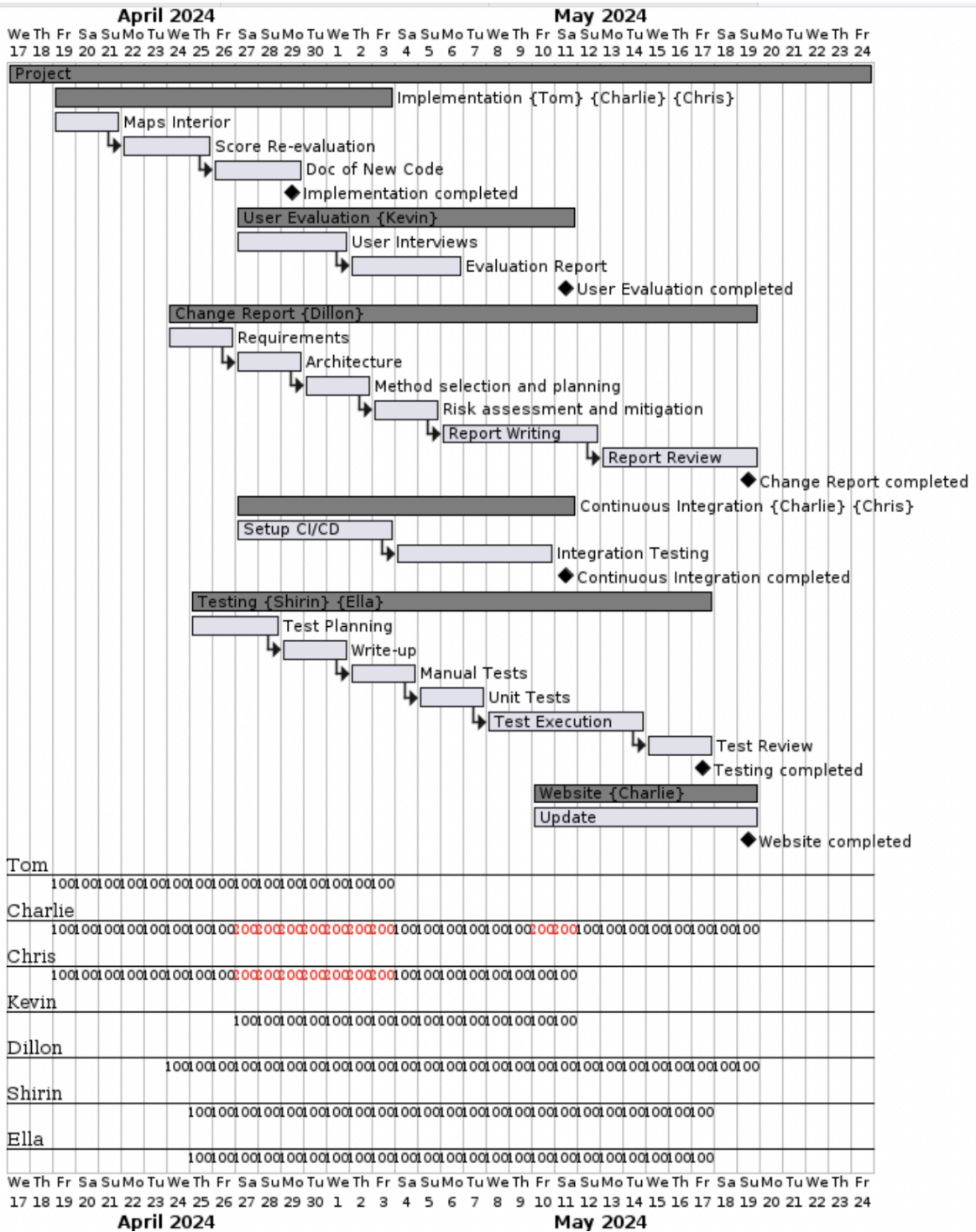
In terms of the Project plan, we had to design a new one due to the new set of requirements and deliverables. Although the pattern is similar, this time around, we worked less in a sequential manner and completed more tasks in parallel. This was done keeping in mind the deadline and the experience we gained working together as a team in Assessment 1.

Here is an updated version of the responsibilities, which changed due to the switch in team members.

Deliverable	Responsible team member	Additional team members
Website	Charlie	-
Change Report	Dillon	Tom, Shirin, Kevin
Implementation	Tom, Charlie, Chris	-
Testing	Shirin, Ella	-

User Evaluation	Kevin	(all)
Continuous Integration	Charlie, Chris	-

A Gantt chart we planned and followed:



Change in Risk Assessment and Mitigation

Original:

<https://therealemissions.github.io/uoy-eng1/pdfs/Risk%20assessment%20and%20mitigation.pdf>

Updated: <https://charliepiper.github.io/ENG1-2-web/uoy-eng1/pdfs/assessment2/Risk2.pdf>

Changed ownership for risks.

Risk ID	Action	Reason
R3	Delete	Project staff has been switched.
R4	Modify	Fixed typo. Changed severity to medium as not dedicating enough time will result in a worse product.
R5	Delete	Multiple people are working on programming.
R6	Modify	Set severity to high as changing requirements has a large impact on a project.
R8	Modify	We are no longer competing for marks, and the client will use our documentation rather than reading source code
R12	Delete	We will be running user tests as part of the assessment. No risk of not doing them.
R13	Delete	This risk was not clearly defined
R14	Modify	Removed section on making a guide as this has been implemented.