

DUNGEON CODER

Team 23 - Sprint 2 Planning Document

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Sprint Overview

For our second sprint, we will be focusing on building the game itself. The frontend team will be working on creating the graphics of the game. They will also be working on the expanding on the website to support more features in the control center. The backend team will focus on creating the mechanics of the game as well as working on improving the server and maintaining the database.

Scrum Master: Ryan Teo Yii Wen

Meeting Schedule: Tues & Thurs at 5:30pm

Risk/Challenges:

Most of the team will be working on the game itself which is considered one of the most crucial part of the project. The risk would be that none of the team is experienced with making a game. A lot of work will be put into learning how to code game mechanics and graphics. Also, it will also challenging to combine the graphics component from the frontend and the mechanics component from the backend.

Unfinished Tasks from Sprint 1

#	Description	Time	Owner
1	Implement code evaluator.	1	Devon
2	Implement ability to manage account information.	3	Ryan
3	Implement ability to assign grades for each student.	2	Ryan
4	Implement ability to leave comments.	2	Ryan
5	Implement an alert when achievement was reached.	2	Gary
6	Implementing unit tests for several tasks.	10	Devon

Acceptance Criteria:

- Given that the user provided a code input, the code evaluator should be able to compile the code to determine if the code is compilable.
- Given that the user decided to change their account information, when the user goes to the account management page, the user will be able to change their account information.
- Given that the control center has been implemented correctly, when the teacher clicks on a class, he or she will see the gradebooks of his or her students.
- Given that the gradebook feature has been implemented correctly, when the teacher selects a student, then the teacher can assign a grade for his or her students.
- Given that the gradebook feature has been implemented correctly, when the teacher selects a student, then the teacher can leave comments regarding the task assigned.
- Given that the gradebook feature has been implemented correctly, when the gradebook has been updated, then the server database will also be updated.
- Given that the gradebook feature has been implemented correctly, when the gradebook has been updated, then the users will be able to view the updated gradbook.
- Given that the user is playing a stage, when the user completed an achievement, then the user should be able to get an alert which shows the achievement that is completed.

Current Sprint Detail

User Story #1

As a student or player, I would like to design my own movements, skills and equipments.

#	Description	Time	Owner
1	Designing background assets.	10	Gary
2	Designing character models.	10	Gary
3	Designing in-stage UI.	10	Ley Yen
4	Implement music to the gameplay.	3	Ley Yen
5	Implement input controller to control the character.	5	Devon
6	Implement character movement logic and behavior.	5	Gary
7	Implement stage logic and behavior.	5	Gary
8	Implement enemy logic and behavior.	5	Ley Yen
9	Implement code input for the game.	3	Ley Yen
10	Develop content of the stages.	10	Ley Yen
11	Develop functionality to run the code input in the game.	4	Ryan

Acceptance Criteria:

- Given that the user is in the stage selection page, when the user plays a stage, then the user is able to control their character using the keyboard.
- Given that the user is in the stage selection page, when the user plays a stage, then the user is able to interact with the environment and enemies in the stage.
- Given that the user is in the stage selection page, when the user plays a stage, then the user is able to input code to complete the stage.
- Given that the user is playing a stage, when the user inputs code into the game, then the game will be able to run the code which will control the character movements to complete the game.
- Given that the user is in the stage selection page, then the user is able to play in at least 3 stages.

User Story #2

As a teacher, I would like to assign tags to certain students that require more attention.

#	Description	Time	Owner
1	Implement database for tagging students	1	Devon
2	Implement website retrieval and sorting of tagged students	2	Ryan

Acceptance Criteria:

- Given that the teacher is in the control center, when the teacher clicks on a student, then the teacher is able to set a tag on the student to indicate that the student requires more attention.
- Given that the teacher has successfully set a tag on the student, when the teacher views the control center, then the teacher should be able to view the student with the tag.
- Given that the teacher has successfully set a tag on the student, then the database should be updated to also show the tag.

User Story #3

As a teacher, I would like to see statistics on the class progress as a whole.

#	Description	Time	Owner
1	Implement several statistics on the website.	2	Ryan

Acceptance Criteria:

- Given that the teacher is in the control center, when the teacher selects a task, then the teacher is able to view the statistics for the task.

User Story #4

As a teacher, I would like to be able to show a good example of codes after the deadline is over.

#	Description	Time	Owner
1	Implement functionality to select a good example of code that can be shown to students in the game.	2	Ryan
2	Implement database for saving a good example of code.	2	Devon

Acceptance Criteria:

- Given that the teacher is in the task menu, when the teacher selects a user, then the teacher can choose the code to be a good example in the game.
- Given that the teacher has selected a user, when the teacher chooses to save the code as a good example, the database will be updated to save the code.

User Story #5

As a teacher, I would like to be able to control the access of stages of the game.

#	Description	Time	Owner
1	Implement database table for teacher classes and students.	2	Devon
2	Implement functionality to lock and unlock other stages on the website.	3	Ryan

Acceptance Criteria:

- Given that the teacher is in the control center, then the teacher is able to view the lock status of each student.
- Given that the teacher is in the control center, when the teacher selects the student, then the teacher is able to change the lock status of the student.

User Story #6

As a teacher, I would like to be able to review my students' attempted codes..

#	Description	Time	Owner
1	Implement file storage system.	3	Devon
2	Implement student-task specific file names in database.	2	Devon
3	Implement website file retrieval from storage system.	2	Ryan

Acceptance Criteria:

- Given that the teacher is in the task menu, when the teacher selects the student, then the teacher is able to view the attempted code from the student.
- Given that the client is implemented successfully, when the user submits their code from the client, then the server is able to save the attempted code into a file that will be sent to the database.

User Story #7

As a teacher, I would like to save some or all of my student's attempted codes.

#	Description	Time	Owner
1	Implement website file download	2	Ryan

Acceptance Criteria:

- Given that the teacher is in the task menu, when the teacher selects the student, then the teacher is able to download the files containing the student's attempted codes.
- Given that the teacher is in the task menu, when the teacher clicks on a button, then the teacher is able to download all the files containing the students' attempted codes.

User Story #8

As a teacher, I would like to be able to create announcements for the class.

#	Description	Time	Owner
1	Implement functionality to add announcement on the website.	2	Ryan
2	Implement server functionality to send announcements to the client.	5	Devon

Acceptance Criteria:

- Given that the teacher is in the control center, when the teacher writes an announcement and sends it, then the server will receive the announcement.
- Given that the announcement functionality on the website has been successfully implemented, when the teacher sends an announcement, then then the server will be able to send an announcement notification to the client.

Remaining Backlog

1. ~~As a student, I would like to play as a normal player after I finish working on assignments.~~
2. ~~As a student or player, I would like to be able to register an account and manage my information.~~
3. ~~As a student or player, I would like to design my own movements, skills and equipments.~~
4. ~~As a student or player, I would like to be able to save my progress manually and automatically.~~
5. ~~As a student or player, I would like to be able to easily browse and repeat a stage.~~
6. ~~As a student or player, I would like to be able see difficulty, objective and explanation of a stage.~~
7. ~~As a student or player, I would like to be able to get hints on a stage.~~
8. As a student or player, I would like to be able to discuss, ask questions and respond to others in a discussion page.
9. As a player, I would like to record my battle and share it to others.
10. As a player, I would like to download and play challenging stages made by other people after I beat the game.
11. ~~As a player, I would like to have an achievements system in the game.~~
12. As a player, I would like to make and upload my own stages and designs.
13. As a player, I would like to see others' designs sorted by upload time, popularity, and difficulty.
14. ~~As a student, I would like to see how many attempts I took to complete my tasks.~~
15. ~~As a teacher, I would like to edit the point values of different tasks.~~
16. ~~As a teacher, I would like to keep track of my students' progress.~~
17. ~~As a teacher, I would like to see statistics on the class progress as a whole.~~
18. ~~As a teacher, I would like to assign tags to certain students that require more attention.~~
19. ~~As a teacher, I would like to be able to create announcements for the class.~~
20. ~~As a teacher, I would like to be able to control the access of stages of the game.~~
21. ~~As a teacher, I would like to be able to set a deadline for the students to complete the stage.~~
22. ~~As a teacher, I would like to be able to review my students' attempted codes.~~
23. ~~As a teacher, I would like to save some or all of my student's attempted codes.~~
24. ~~As a teacher, I would like to be able to assign grades and leave comments on the gradebook.~~
25. ~~As a teacher, I would like to be able to show a good example of codes after the deadline is over.~~
26. As a teacher, I would like to be able to respond to student questions on the discussion page.
27. If time allows, as a player, I would like to be able to view a competitive leaderboard with other users.
28. If time allows, as a player, I would like to be able to choose other programming language that I'm already familiar with.