Game Design Document (Exam Game)

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1 Introduction

1.1 Scope

1.1.1 First Person Combat

Controller:

- First Person Camera
- Player Interaction
- Player Control

Combat:

- Responsive Enemies
- Multiple Enemy Types
- Enemy Navigation

1.1.2 Inventory and Crafting

Inventory:

- Item Holding
- Item Collection

Crafting:

- Item Recipes
- Item Creation
- Upgrade System

1.1.3 Procedural Generated Dungeon

Will be used to generate a new dungeon for the player upon player-entry. Room by room generation to allow unique dungeons and experiences.

1.2 Background

This group is far more technically inclined without a resident artist. In light of that, a more challenging project has been thought up. Thus this project is seen as a technical challenge for the group where challenging aspects such as enemy AI, and Procedural Generation are included.

With each challenge in this project, there are more and more challenges underneath as the challenges are explored and systematically Solved.

2 Project Information

2.1 Development Tools

Unity will be used as our primary application for development. Within unity, the new input system will be used to handle Player Input.

Blender will be used in the event of creating an asset, with Krita as a supporting software for textures.

Assets and Animations will be obtained externally from websites such as Sketch-Fab, and Mixamo.

Discord will be used as a means of facilitating Playtesting due the accessibility and ease with which documents can be shared to other users on computers.

2.2 Communication Tools

Primary Project Communication takes place on a private discord server. Less official communications will be carried out over Whatsapp on a group.

2.3 Risks

- Lapses in communication
- Unforeseen challenges with other courses or personal issues.

- Load Shedding.

2.4 Challenges

Given that the project holds many obvious challenges and aspects that will prove challenging or possibly problematic for the group:

- Procedural Generation
- Enemy AI
- Implementing a Neural Network into the dungeon.
- Time Constraints
- Weapon balancing
- Enemy synchronicity
- Loot drops
- Art Direction and Implementation

2.5 Conclusion

This is a highly challenging but highly rewarding project. It was thought up and chosen to include aspects from games the group members enjoy from the games we play and what we would like to see in the games in the future.

3 Alpha Build Changes

3.1 Role Changes

Due to the project going off track for a bit, and tasks not being completed on time, the project management from the Alpha Build going forward had to drastically change.

After an intervention, project management roles became more formally set as to get tasks done and time and to hold people accountable for their work.

As such, the roles had to be redistributed as such as to set the project back on track and make a suitable game for the final deadline.

3.1.1 Andrew Kapp

- Character Controller
- Player Interactivity
- Player Combat System,
- Enemy Combat System
- Lead Programmer

3.1.2 Ricardo Costa-Tré

- Inventory System
- Shop System
- Project Manager
- Documentation
- Enemy Creation
- Enemy Spawning
- Core Game Designer

3.1.3 Ash Jurisich

- Procedual Generation

These changes were made as to allow for the highest possible outcome of a plausible end product within the time constraints, factoring in previous work and contributions to the previous builds.

3.2 Project Management Tools

Previous to the 'Alpha' build, a more relaxed and flawed approach in hopes all work would get done by the respective parties in time, however due to the aforementioned not happening, a stricter approach to the assignment of tasks had to take place, resulting in a Trello workspace.

3.3 Development Timeline

- 31 August 2022 » Game Design Documentation
- 07 September 2022 » Game Pitch
- 21 September 2022 » Updated Documentation and Prototype
- 04 October 2022 » Pre-Alpha
- 19 October 2022 » Alpha
- 16 November 2022 » Beta

3.4 Calendar

The following is a summary of the calendar for the tasks assigned for the 'Alpha' build.

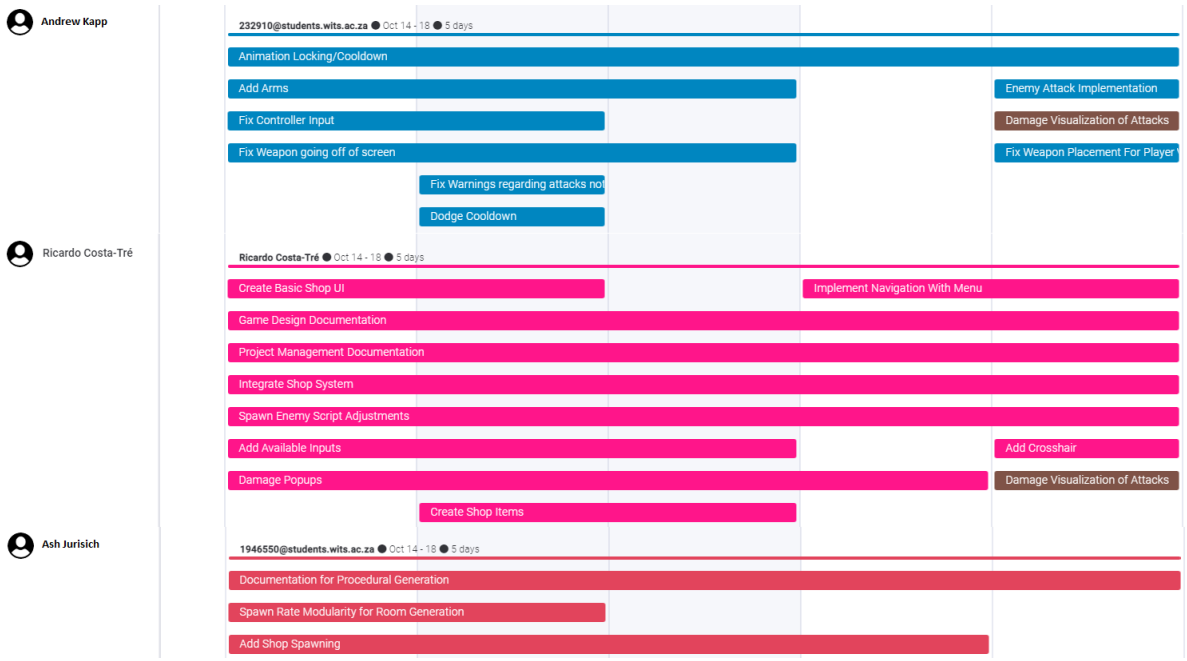

Figure 1: Calendar Breakdown of Tasks for the Alpha

4 Beta Build Changes

4.1 Task To Be Completed

HERE

4.2 Time Allocation

In an attempt to aid and prevent further loses in time due to misplaced time on systems, the following velocity calculation has been made to account tasks and systems to their respective hours and points.

4.3 Timeline Adjustment

HERE BE TIMELINE ADJUSTMENT