Project Management Document

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Scope

Forbidden Labyrinth (FL) consists of 3 main subsystems: a FirstPerson combat, Inventory and Crafting system, and procedurally generated dungeon.

First Person Combat

Controller

- First Person Camera
- Player Interaction
- Player Control

Combat

- Responsive Enemies
- Multiple Enemy Types
- Enemy Navigation

Inventory and Crafting

Inventory

- Item Holding
- Item Collection

Crafting

- Item Recipes
- Item Creation
- Upgrade System

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.

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.

Division of Roles

Andrew Kapp

- Character Controller
- Back up Asset Creation
- Combat System

Ricardo Cost-Tré

- Enemy AI
- Inventory
- Crafting System
- Combat System

Ash Jurisich

- Procedural Dungeon
- Sound Assets

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 SketchFab, and Mixamo.

Communication Tools

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

Risks

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

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
    - Being a group of engineers, the time available to work is less than that of some other groups.
- Weapon balancing
- Enemy synchronicity
- Loot drops
- Art Direction and Implementation

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.