Labs of Rynth

Final Report
GitHub: https://github.com/micle546/LabsOfRynth
Issues and Tasks: https://github.com/users/micle546/projects/9

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Project Overview

 We have developed the beginnings of a maze/puzzle game, where the player must navigate the maze and avoid enemies in the process. Our goal was to create a first-person maze/puzzle game with power ups (speed boosts, path tracking, puzzle tools, etc), sub objectives (collectables, maybe enemies, or things to catch), and hazards/traps. Sci-fi themed 3d first person with interactable objects that affect doors, walls, or other aspects of the level.

Win conditions: Reach the yellow cube at the end of the level and press "e" to interact with it.

Failure conditions: Health reaches 0

Enemies: Will chase the player indefinitely. can be trapped behind doors.

1. Core mechanics
    a. Maze navigation
    b. ~~Maze generation~~
    c. ~~Puzzle solving~~
        i. ~~Lock and key~~
        ii. ~~Hazard avoidance~~
        iii. ~~Switches~~
        iv. ~~Portals~~
    d. Pursuing enemies
2. Visual aesthetic
    a. Sci-Fi Lab corridors
3. User Interface
    a. First Person
4. Controls - WASD movement - Mouse (Pan & tilt)
5. Target audience - Humans!

Future work

1. User Interface
    a. Shows equipment Icons (if any)
2. Music/atmosphere - (look at snapmuse for potential music) - https://incompetech.com/music

Project tasks

 Please see the following links for an up-to-date status of the current project

Mike – Micle546, Chris – Coggs92

Project tasks categories: https://github.com/users/micle546/projects/9/

Iteration Overview: https://github.com/users/micle546/projects/9/views/4/

Project Tasks

Iteration 1   8   Oct 05 - Oct 12

1	⊘ Setup Github #1	🎮 micle546	Iteration 1	☑ Done	
2	⊘ Maze Design Concepts #2	🟢 Coggs92	Iteration 1	☑ Done	⑂ #6
3	⊘ Import Maze construction Assets #3	🟢 Coggs92	Iteration 1	☑ Done	⑂ #5
4	⊘ Player Movement (X-Y Translation) #4	🎮 micle546	Iteration 1	☑ Done	⑂ #10
5	⊘ Player Movement (Mouse Rotation) #7	🎮 micle546	Iteration 1	☑ Done	⑂ #10
6	⑂ Adding Map assets #5	🟢 Coggs92	Iteration 1	☑ Done	
7	⊘ Submit Pictures of Prefabs #8	🟢 Coggs92	Iteration 1	☑ Done	⑂ #9
8	⊘ Submit Iteration 1 Report #11	🎮 micle546	Iteration 1	☑ Done	⑂ #12

Iteration 4   5   Nov 15 - Nov 28

9	⊘ PlayerMovement #13	🎮 micle546	Iteration 4	☑ Done	⑂ #14
10	⊘ Create Maze Blocks #16	🟢 Coggs92	Iteration 4	☑ Done	⑂ #17
11	⊘ Create Simple Base Maze (ungenerated) #15	🟢 Coggs92	Iteration 4	☑ Done	⑂ #17
12	⊘ Submit Iteration 4 Report #21	🎮 micle546	Iteration 4	☑ Done	⑂ #23
13	⊘ UI (Start screen) #19	🎮 micle546	Iteration 4	☑ Done	⑂ #22

Iteration 5   9   Nov 29 - Dec 05

⊙ Determine and Prioritize base mechanics	🎮 Coggs92 and micle...	Iteration 5		
⊙ AI Enemy prototype #39	🟢 Coggs92	Iteration 5	☑ Done	
⊙ Implement locking doors #32	🎮 micle546	Iteration 5	📋 In progress	
⊙ Floor is lava #31	🟢 Coggs92	Iteration 5	📋 In progress	
⊙ Develop Maze Generating Algorithm #18	🟢 Coggs92	Iteration 5	Incomplete	
⊘ UI (pause menu) #25	🎮 micle546	Iteration 5	☑ Done	⑂ #24
⊘ Pickup prefab #26	🎮 micle546	Iteration 5	☑ Done	⑂ #34
⊘ UI (player interface) #20	🎮 micle546	Iteration 5	☑ Done	⑂ #34
⊘ Pickup prefab (Health) (static+) #29	🎮 micle546	Iteration 5	☑ Done	⑂ #34

Iteration 6   11   Dec 06 - Dec 16

⊘ Pickup prefab (speed) (timed) #27	🎮 micle546	Iteration 6	☑ Done	⑂ #38
⊘ Pickup prefab (speed) (upgrade) #28	🎮 micle546	Iteration 6	☑ Done	⑂ #38
⊘ Add _maxSpeed to player character #37	🎮 micle546	Iteration 6	☑ Done	⑂ #38
⊘ Pickup prefab (Health) (max_increase) #30	🎮 micle546	Iteration 6	☑ Done	⑂ #36
⊘ UI (level select?) #35	🎮 micle546	Iteration 6	☑ Done	⑂ #36
⑂ maze level assets and another maze #33	🟢 Coggs92	Iteration 6	☑ Done	
⑂ Enemy Model and Level 1 #40	🟢 Coggs92	Iteration 6	☑ Done	
⑂ Fix Pause Menu Prefab #41	🎮 micle546	Iteration 6	☑ Done	
⊘ LevelFinish Prefab #42	🎮 micle546	Iteration 6	☑ Done	
⊘ HealthPrefab missing script #43	🎮 micle546	Iteration 6	☑ Done	
⊘ Speed boost not working? #44	🎮 micle546	Iteration 6	☑ Done	

Future Plans 6 Dec 17 - Dec 23 (Current)						
⊙ Add Enemy damage #46		▾	Future Plans ▾		✖ Missed ▾	
⟲ Add Player Character model (w/ animation?)		▾	Future Plans ▾		🗐 Backlog ▾	
⟲ Add Button model + functionality		▾	Future Plans ▾		🗐 Backlog ▾	
⟲ Create Level 2		▾	Future Plans ▾		🗐 Backlog ▾	
⟲ Create Level 3		▾	Future Plans ▾		🗐 Backlog ▾	
⟲ Create Level 4		▾	Future Plans ▾		🗐 Backlog ▾	

What I learned

I've learned that time management is a very critical skill to learn, especially when distracted by other projects of equal importance. In game development, I was unaware how little time is spent actually coding, and how most of the time spent is in building assets, and refining mechanics. Having a solid understanding of how the different systems interact with each other plays a really important role in the game development process. I imagine that's what the upper management of a gamedev team spends so much time doing, directing the creative vision of the project to form a cohesive whole.

Conclusion

We have the basics of a game built, with what little time we were able to commit to this project. Were we able to continue on this project, we would add more levels to the game to lengthen the experience, potentially spreading out new features over time, like the speed boosts, the unadded buttons, switches, and locked doors. We would also like to complete the health system. I would have liked to have an animated player model added into the game too, instead of just the basic capsule.