

**Team Number: 20**

**Team Members:**

- Will Wyndrum
- Ben Moeller
- Jason Truong
- Mohit Garg
- Freeman Spray

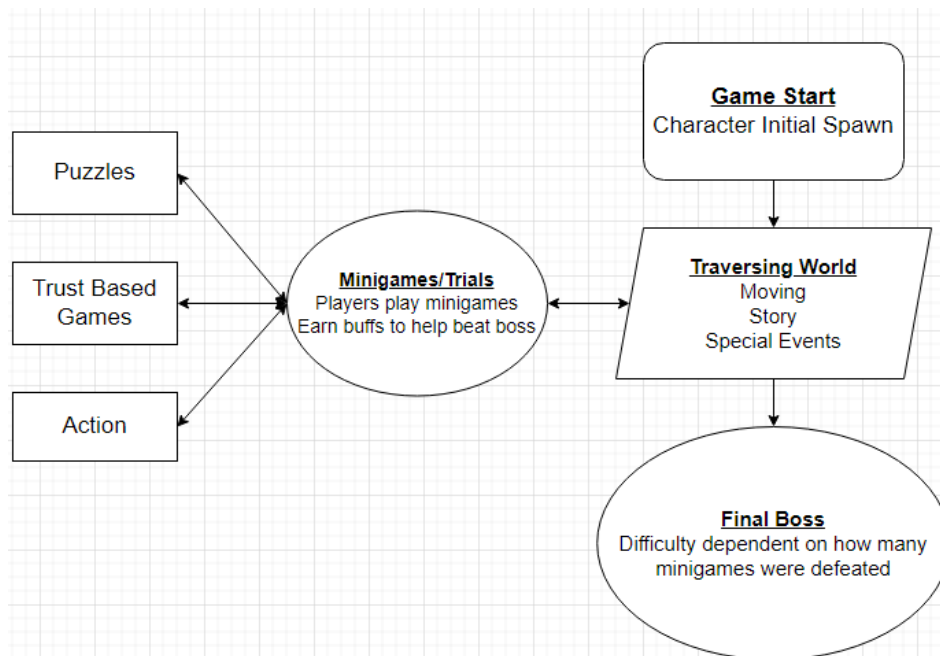
**Project Name:** Mendax

**Project Synopsis:**

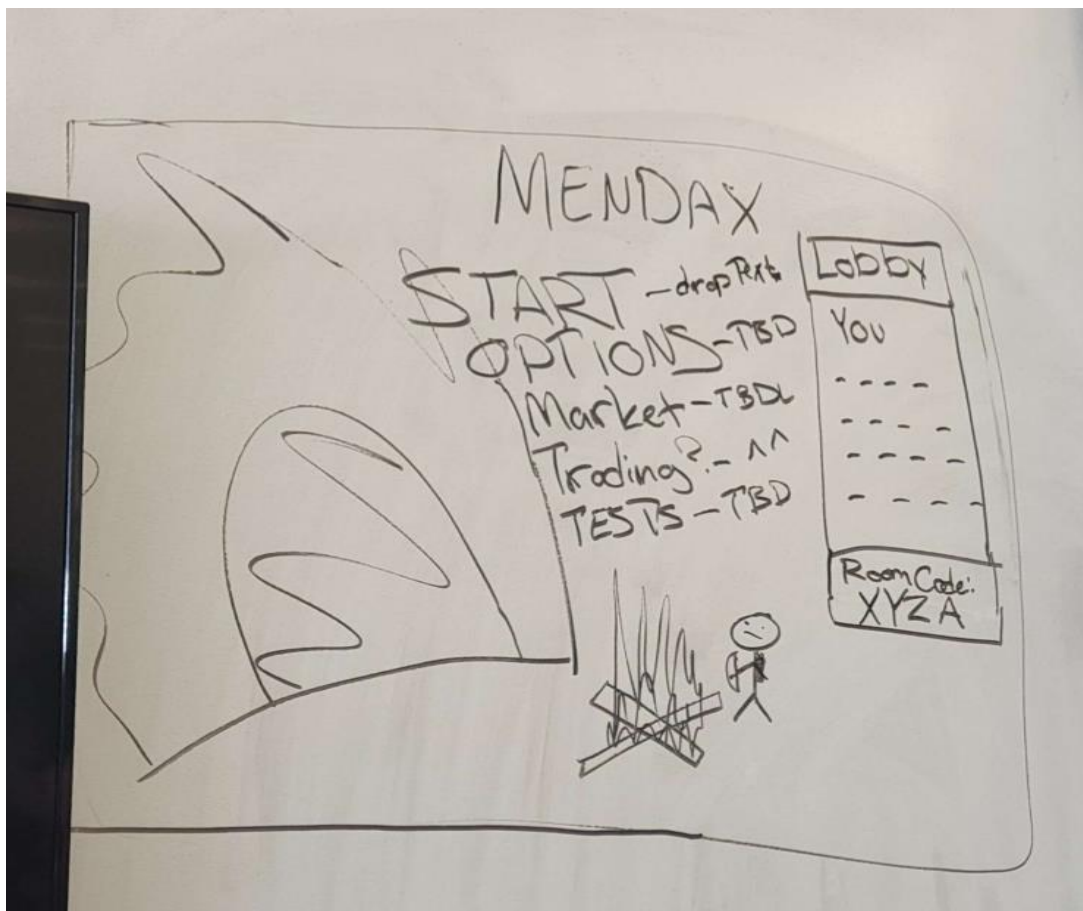
1-4 player game where user(s) complete trials throughout a 2D world to defeat a boss at the end.

**Architecture:**

The goal of the game is to create a fun multiplayer experience that can either be played solo or with up to 3 friends. There will be an interactive world that players can move around in together, and along the way they will be forced to play various kinds of minigames together. These minigames will help players earn buffs that can be used to fight a final boss at the end of the game. This boss can be challenged anytime the players want, with the caveat that without sufficient buffs it may be too hard to complete. Here is an example of our initial design notes:

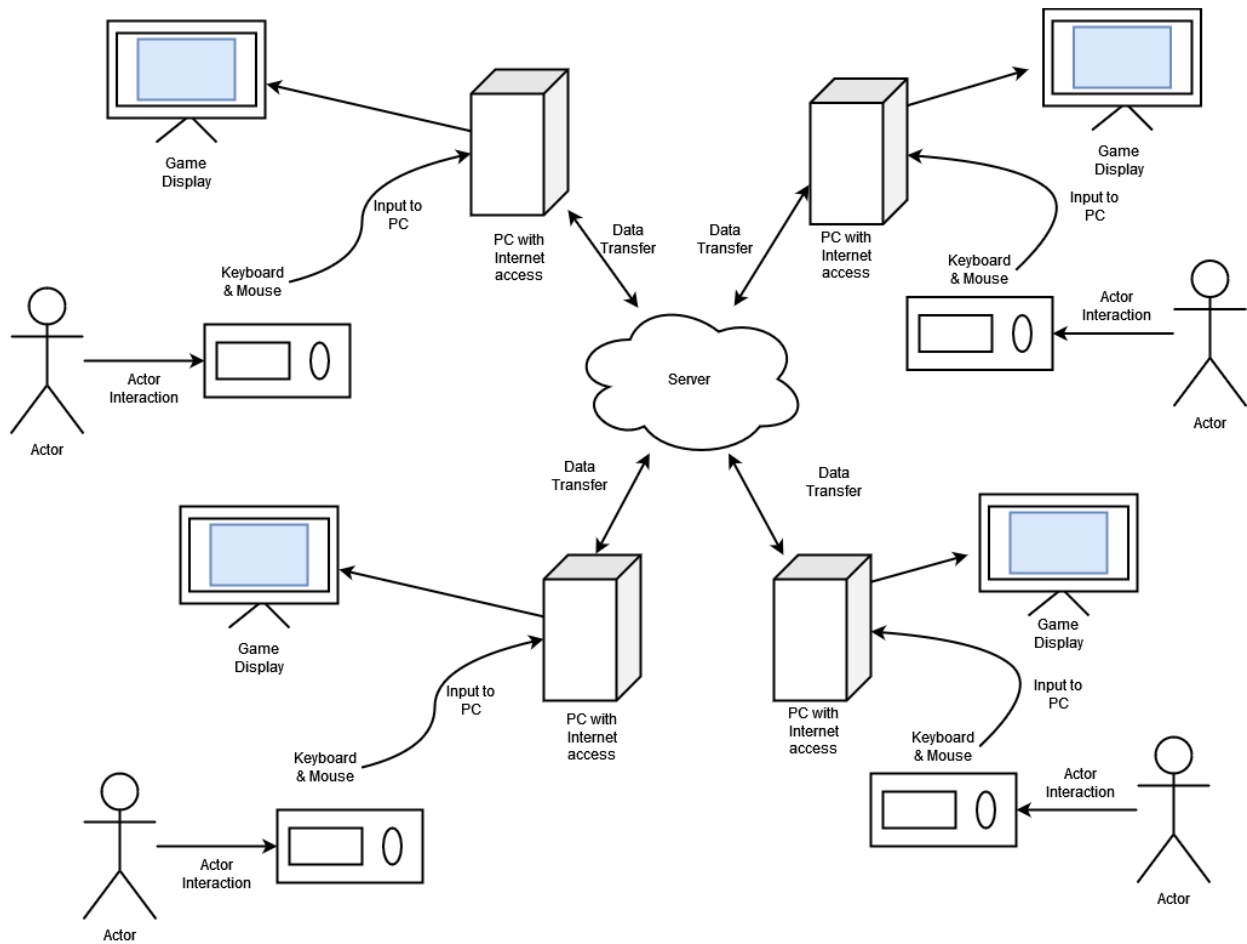


The start of the game begins at an initial starting location, and we had the idea of introducing different paths and challenges for players to find. If there are multiple players in the game, then the players have the option of moving to whatever area of the map they desire, and whatever challenges they land on will cause other players to join in as well. This would continue for as many challenges as players want to complete, but they also have the option of non-cooperation as well. This is because we are planning to set up the bosses XP gain based on how many players beat him. That means that if cooperative gameplay sounds boring, players can actively try to get rid of other players if they want to get all the XP on their own. There will be mechanisms put in place in both the minigames and the world map for players to optionally accomplish this. As far as overall aesthetics go, we plan to have Medieval style characters and backgrounds, with also a theme of neon colors as well. We think that this will give the world a nice pop and help the characters stand out. Here is also what our initial menu design we produced looks like:



To undertake this task, we will be utilizing a free and open-source game engine provided under the MIT License, the Godot Engine. The Godot Engine's architecture is much like a tree of nodes, which makes it very easy with object-oriented programming languages like C++. We plan on taking each aspect of the game individually, and build up into a fun, brutal, multiplayer

game. There will also be a significant portion of the project that will be devoted to client server interactions with multiple people in the game. Here is a diagram of how we anticipate users will interact with our game with max players (4).



Overall, the goal of this game is to create a fun, collaborative experience that can be played and enjoyed with friends. It will be up to the players to decide if they want to make the game a competitive battle or a cooperative experience. This will be done by the decisions that are made as they go from minigames to final boss, where the end will decide how much a user earns.