# FPS Design Document

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Theme and Plot

Our group plans to design the game in a magical world with fps gameplay using wands instead of guns. In the previous level, the player passed the tutorial and met a man in the valley who claimed to be the king. The player worked hard to protect him to reach the portal. But after passing through the portal, what waits for him/her is not a reward, but betrayal. At the beginning of my level, the player finds himself being beaten unconscious by the king, who has also taken his magic key and escaped into the castle. In order to punish the betrayer and get the important key back, the player decides to break into the castle and kill the king.

The Map

One of the major design highlights of my level is the informative map. At the beginning of the level, once the player knows the plot, he/she can immediately see the spectacular castle, with the tallest tower being an obvious landmark telling the player the direction in which he/she should proceed. The overall map is divided into 5 sections: **the bridge, the wilderness, the first part of the castle (melee enemy area), the second part of the castle (melee and ranged enemy area) and finally the maze!**

1. **Bridge area**: mainly to introduce the plot, on the bridge the player can see the whole castle and have a rough idea of the map. At the same time, there is a simple ranged enemy at the end of the bridge for the player to try and kill.
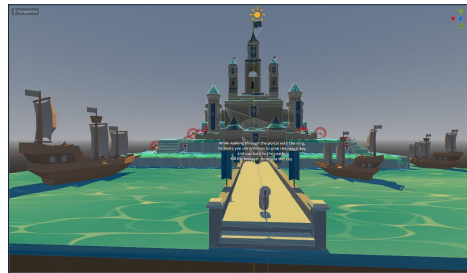

2. **Wilderness area**: After passing the bridge, the player will notice that there are a lot of enemies in the castle. Players who are scared of the large number of enemies can choose the wilderness paths on either side and enter the wilderness area. For those who love to kill enemies, they will enter the first section of the castle. The wilderness area does not have a lot of enemies that will rush towards you and want to kill you, but will it be easier? Not really. There are flying guardians in the wilderness area, and as soon as they spot you (by entering the red zone), you will be killed in one hit. So it's up to the player to figure out a route to avoid the flying guardians altogether based on enemy locations. Additionally, there are routes in the wilderness area that lead to the Castle's first and second areas.

3. **Castle area 1**: Players who love killing enemies can choose to enter the first area, which is filled with melee enemies that will rush towards player when he/she get within range of an enemy probe and keep chasing you. Also, there is a stairs in this area that can lead to the

wilderness, although there is a danger of being attacked by ranged enemies on the walls.
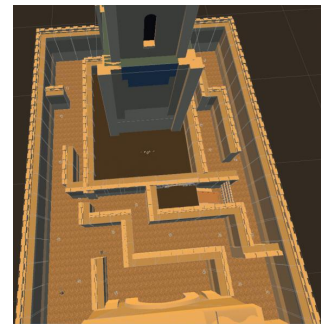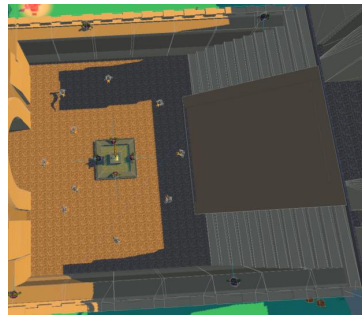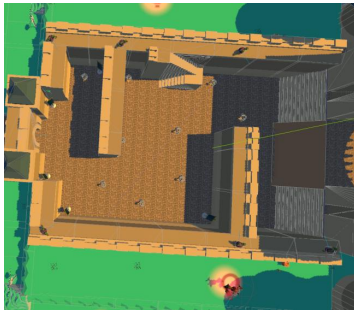

4. **Castle area 2**: Player will enter this area if he/she didn't escape to the wilderness in the previous area. This area has melee enemies and ranged enemies. If player goes near the wall you will be surrounded by melee enemies, if player goes through the middle, he/she will be in the firing range of the ranged enemies. Player can make their own choices.

5. **Maze area**: the final area, at the end of the maze are the hated Betrayers. The maze is filled with both melee and ranged enemies, so killing them all or running fast to get directly to the end of the maze are both possible. Just be careful about going into a dead end, then the player will face a siege.

The main purpose of the map's design is to give the player the right to make decisions and choices. It is possible to hide in the wilderness instead of killing enemies, or to kill a path of blood, or to choose to escape to the wilderness while killing enemies or to enter the castle in the wilderness. Except for the final maze, which must be performed, **all choices are left to the player**. In addition, thanks to Francisco for coming up with and coding the liftable object that the player can ride to high places, which makes my maps much more designable.

Characters Design

Besides the wand-wielding player, my level has 3 types of enemies and the final king. I designed and coded the **melee** and **ranged enemies** and shared them with the whole group. The melee enemies are described in the map part. Ranged enemies are immovable, but will keep shooting at the player when they are in attack range. The **flying guardians** are designed specifically for my level. It was originally planned that the flying guardian could patrol the wilderness, but since I've not been able to handle the function of attacking while patrolling, I had to simplify it so that it stays in position. When the player enters the red light area, the guardian shoots a powerful attack that kills the player immediately. It's worth mentioning here that when completing the level and testing it out, I found that if the player runs fast enough to get right underneath the guardian, the poor guardian can't shoot the player. It's called lampshading, I believe. I felt this could be a cheating solution for players who love to explore the possibilities, so I kept this design.
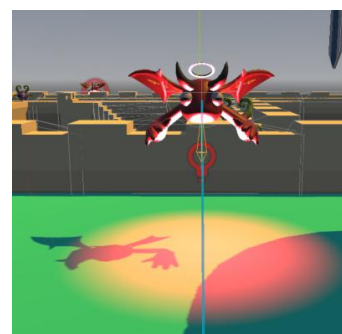
The final king, whom we've already met in the previous level, is a despicable betrayer who took the magic key from the player who helped him. And the only way to pass through the portal (the setup of the first level) is to have the magic key. I designed him to be very weak in my level, and he will die after just a few attacks. He also doesn't attack the player because he's just a cowardly bluffing character. When he dies, the player who gets the key back can only see the portal.
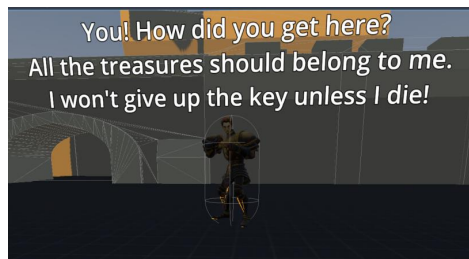
Interesting bug

In addition to the previous bug with flying enemies, there is another bug that I find interesting so I keep it. When the player is facing a large group of melee enemies, if they are near a wall, the player will be held up against the wall by the melee enemies and stand on top of the enemies' heads. At this point the enemies can't attack the player, but the player can attack the enemies. And more interestingly, if the player is standing right on top of an enemy, he/she will be able to ride the enemy. And because he/she's up high, other melee enemies can't attack him. My friend who tested my level called it the most interesting part of the game, so I kept it.