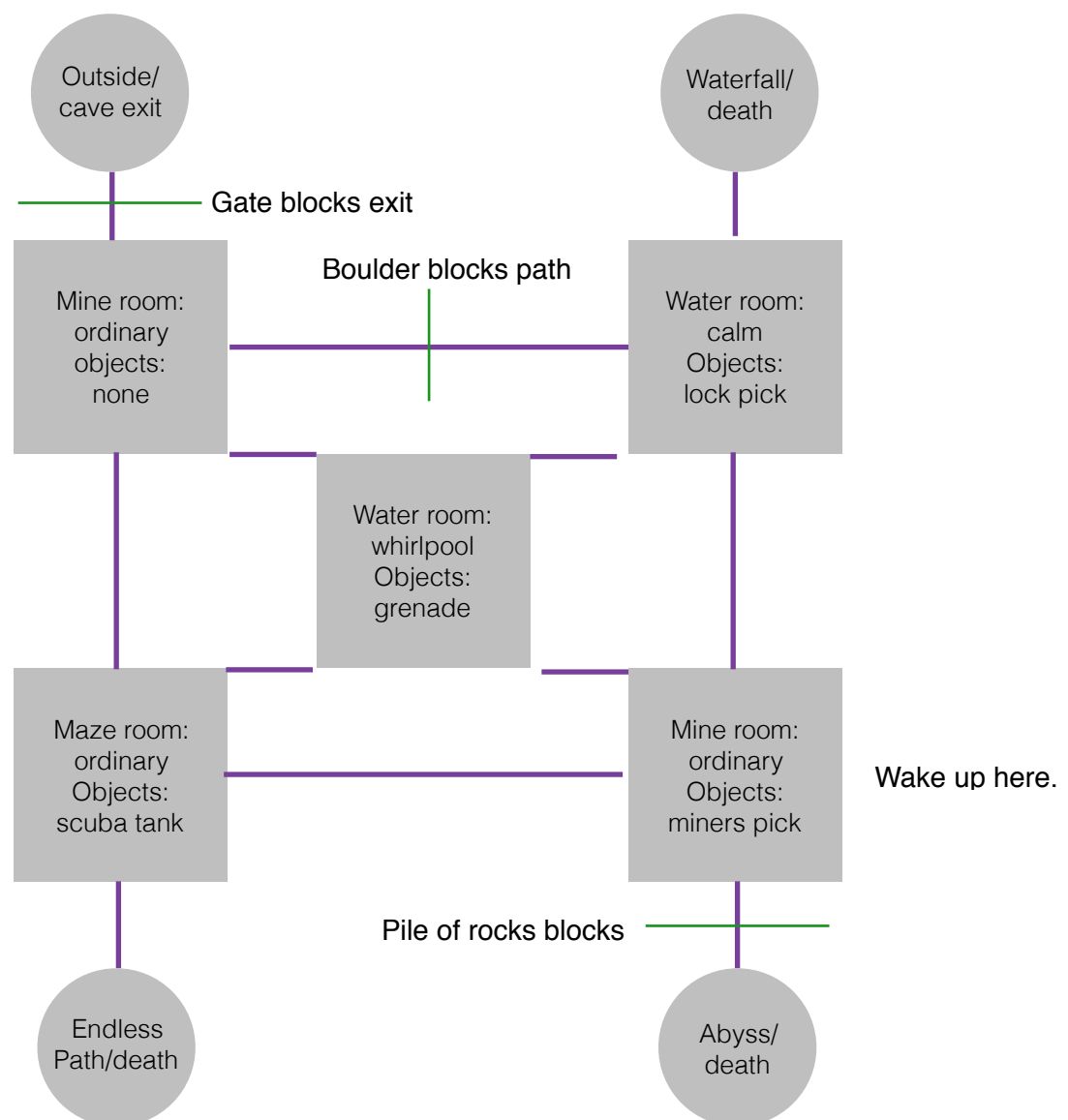


Design

This is by far the biggest thing I will have written to date. It will include more files, have more pointers, and more code than I care to think about at this time. The game will be a get out alive game where you find yourself in a cave for some unknown reason and you need to get out alive. There is a lot of ways to die and many ways to get out. This game is part luck and part skill, but mostly luck. The map will be made out in at the start of the game with all the items and obstacles in place. If I have time I would like to make this sort of random but I will get there if I can. There will be 5 rooms total and each will have 4 paths off of it. Some paths will be hidden and some will be visible. There will be obstacles to cover or block paths and objects that can or cannot be used to get past those obstacles. Some paths mean instant death. Others could mean death only if you are not equipped properly. Here is a map of the cave design.



Rooms

All of the room will be children of the rooms class. This will be an abstract class that lays out the framework for all the things the rooms and the other locations need.

All of the rooms will have room names, and types as variables. As well as pointers to objects, obstacles and other rooms. They will also have functions for setting and getting objects, obstacles, and names. They will have a look around function to list what is in the room, an investigate function to look more closely at a particular thing and perform some action on it. This is how you will go from room to room. There will be functions for going to another room, and taking an object from a room.

Mine Room

This is your basic cave room. It has an open area with tunnels leading from it that go to other rooms. It can hold an object and have a path blocked by an obstacle.

Water Room

This is similar to the mine room only some of the actions are different based on the water filling the room. This is especially true for the whirlpool room where the water can kill you if you have not collected the scuba tank first.

Maze Room

This room is like the mine room except its paths require multiple decisions and the destination you arrive at is determined by those decisions. You could go on an endless path, go to another room, or end up back where you started in the same room.

Ends

These are all places where the game ends in some way. They are a sub of the rooms class but most of their functions are empty because you really just go there to die. They just need to say where you are so the game can say how you died.

These will include the abyss, the endless path, the waterfall, and the cave exit/entrance.

Objects

These are very simple objects. They need two names one for the object and one for the hiding place it will be in if there is one. They perform there function by being imposition of the player. That means that he must pick them up from the rooms he visits.

These include, miners pick, lock pick, scuba tank, and a grenade.

Miner's Pick

This object can get you through a pile of rocks but is not strong enough for anything more then that.

Lock Pick

This can be used to pick the front gate but nothing else.

Scuba Tank

This keep you alive if you go into the whirlpool room

Grenade

This can get you thru the rocks, boulder, and gate but can only be used one time. If you use it on the boulder you need the lock pick to get thru the gate.

Testing

Each room needs to be tested to make sure that they function properly. To save space I will not right out the exact inputs for each command but will express the goal and how it will be implemented.

Goals:

- 1, Give a bad input to every prompt and have it return a warning.
- 2, Look around in every room and see the right things at first, after obstacles have been removed, and after objects have been picked up.
- 3, Investigate all things. Items should be able to be picked up, obstacles should be removable with the right objects.
- 4, Tunnels should take you to the right places.

starting Room

look first	check
check pockets	check
find object	check
look again	check
check pockets	check
clear obstacle (try with and without object)	check
look a third time	check
check pockets	check
go down every path (two paths should kill you)	check
read sign	check
input check	check

maze room

look first	check
check pockets	check
find object	check
look again	check
check pockets	check
go down every path (one path should kill you)	check
read sign	check
input check	check

whirlpool room

go in without scuba tank	check
go in with scuba tank	check
look around	check
find object	check
look again	check
go down every path (no paths should kill you)	check
read sign	check
input check	check

calm pool room

look first	check
find object	check
look again	check

clear obstacle (try with and without object)	check
look a third time	check
go down every path (one path should kill you)	check
read sign	check
input check	check

final room

look first	check
clear obstacle	check
look again	check
go down every path	check
read sign	check
input check	check

Conclusion

This is the a never ending project. The more I work on it the more refinement I find it could use. However I am very happy with how it turned out. There is still some spacing issues that need to be worked out but the game is very playable. However I'm not sure if it is really fun. I would need to test it against people who did not design it to see if it has fun aspects to it. I really liked this project even though it was a lot of work and a lot of late nights I am proud of what I have created.