

## Part 2

### The Abstract:

The idea behind my program is to deliver a text based game that is complex. Some of the ways I plan on making complex enough is by having the map randomly generated from a set of random integer. The way I hope to do this is by making a 2D array and housing 2 numbers per room there. One number will represent what room the room is and the second will show how many enemies are there. The game is encouraged to be played many times because of this random factor. There will also be a number of things that will make this game complex such as battling system, xp levels, and a boss battle or two.

### The Introduction:

I have always loved playing video games, making one of my own sounded really interesting. Trying to make a game sounded challenging and engaging and so far has proofed so. I have learned alot from this project and am still learning things through this project. There are currently 6 classes and I am in the process of finishing up the last few. There are many things to this project that I will be explain later in this outline. Because the map will be random I encourage you to play the game more than once since there will be many rooms to see and different scenarios will happen. Trying new and creative ways to make this project complicated enough was had but I believe that i have found a couple of new ways to make it so. All enemies will be based around your level so that there will a modifier for that. There will also be 3 difficulties that will help with the playthrough. The difficulty will help you with enemy levels and weapon damage. There is also combat what is based around turns.

### Detailed System Description:

Currently the system is based around creating a random map with preprogrammed list of rooms, there are also specific classes that are based around the enemy, and characters classes which are subclasses to the creature class. There is also a weapon, combat, and a map generator. Each of these vary in sizes and some are currently not complete.

Creature
+health :int + stamina:int +currency:int Stamina: int
+getHealth: health +setHealth: null +getStamina: stamina +setStamina: null
Enemy

+Weapon: String +damage: int
+1getWeapon:Weapon +setWeapon: null +getCurrency: currency +setCurrency: null +punch:Damage +kick: damage +useWeapon: damage * damageModifier +heal:Damage

Character
+currency:int +Weapon:String +Potion:int +Inventory[String] +damage:int
+getCurrency:weapon +getWeapon:weapon +getPotion:potion +getInventory:inventory +doSwing: damage * weaponModifer +doPunch: damage +doKick: damage +flee: true +shield: damage * modifier

Generate Map
+numOfEnemies:int +map:int[][] +puzzle:int
-generateMap: Map -generatePuzzel:int -Room1:null -room2:null Room3:null Room4:null room5:null

what's the type of these?  
Room could be another class.

Weapons
+club:int +sword:int
+getDamageMod:damageModifier

Requirements:

The problem that my programming is addressing is the use of testing random numbers as well as trying to bring entertainment to people. I also want to try experimenting with things like reading out a file that will show what rooms you got as well as things like arrays and seeing how I can fit more into my program.

Literature Survey:

There have many games that have been created, some that are soon to come out are cyberpunk 2077 and borderlands 3 that are all much more complex than mine. When computer's first released people would play all sorts of text based games such as football. Today there are even more like escape the room, zelda has had a text based game and more.

User Manual:

There isn't much needed from the user, but the user will engage in fights that the character can select 2 base moves (kick and punch) and one to two other moves given from the weapon they are currently holding. The map will generate random rooms that will include their own puzzles, fights and maybe even a mini boss or two. I'm currently thinking that there will 15 different rooms and 5 to 10 will be played each time the map is generated.

Conclusion:

This is a project before a game, and because of that i'm trying different things to make this game interesting, unique and complex to earn a good grade. I'm experimenting with algorithms such as a random map generator and a combat system that the enemy will fight back. I also am going to include small but useful puzzles that will help show my understanding of java.