

## **HERO OF DUNGEON PROJECT REPORT**

### **PROJECT MEMBERS**

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First of all, our project is about a game which a hero has a mission to save the town people while he/she is battling with monsters. We created the rooms and we set the highest level number as 16. We created door and stairs classes to make the hero be able to access the next level.

### **Battle Class**

In Battle class, with using interface, we specified which weapons hero and monsters can have and what kind of features that these weapons have. We have 3 weapons such as swords, axes and bows and each weapon has different kinds. Each weapons have their own features for example weight, range and how much damage they can cause to the other character. Hero and monsters also have clothes like armors. Their clothes have their own features.

### **Item Class**

Item Class extends to Clothing and Weapons Class.

An Item class is created to extend to Clothing. Its properties also is declared in the class. Clothes have protection values, too so we implemented a variable for it. Clothing class is also extended to LeatherArmor, ChainmailArmor and LightClothing to imply these variables to the game. Therefore, player can choose which clothing he/she wants to wear. Item class also extends to Weapons class. In Weapon class, it holds some variables like BlockAction, Damage, RangeValue. BlockAction variable is used when hero wants to protect himself/herself from the monster. Damage variable shows how much damage hero got and RangeValue variable is used for how wide area a weapon can shoot.

## Character Class

Character class has subclasses as Hero, Monster and Townspeople.

Monster class has three types of monsters such as SPIDER, SNAKE, CLOWN and abyss.

Under the Character class, we specified a Monster class. In Monster class, the player has 4 options of Monsters to battle with. We implemented its name, HP (hit points) value, damage and armor. In Monster class, we specified every monster's features by using method heroAttack. Every monster have their own hit points, damage levels and armors. The Monsters are distributed randomly to every player at least 4 option to at most 5.

We created an abstract Class which is specified for Hero, extended from Character class and is used for Battle Class. In this class, we set Hero's clothes and weapons. We also indicated town people as 0 in the beginning.

Another extended class from Character class is Townspeople class. In this subclass, we implemented the properties of people of the town. If the hero saves them, we make them thank the Hero for saving their lives. Also Hero will get 5 points to his/her current hit points (HP) for saving the towns people's lives from the monster.

## Main Class

Firstly, we welcome the player to the game. We enable the player to create his/her own hero and name it. Also your HP is set in the beginning of the game. We limited the floor numbers at least 3 to at most 4 and room numbers is also limited to at least 4 to at most 6. If you want to start the game you have to type 1 and the game will ask you which weapon you want to choose. If you don't type 1, the game will warn you to enter a valid comment.

When Hero comes across with a monster, if Hero's BlockAction is not enough to cover the damage and the weapon's range value is bigger than the random range, it is shown in the screen how much damage hero got. If it is enough, the game will inform you with a message says "The hero blocked the damage...". If the random range is bigger than the weapon's range value, then a message will appear on the screen says "The monster missed the attack...".

If the monster dies, it will drop its items and the player can pick them up. You will have 4 choices and it's required that you will have to pick one of them.