**Use Cases Documents**

1. Use Case Name: Attack Enemy

Description: If the player enters a 1 block radius of any enemy, the enemy will attempt to attack the player. There are five different enemies with unique stats. Enemies have a chance of their attack failing to damage the player. The player always attacks first.

Actors: Player, Enemy, Gold

Precondition: Player must be within a 1 block radius of the enemy

Trigger: Player attacks enemy

Basic Flow:

1. When the player enters a 1 block radius of an enemy, they attempt to attack the player or vice versa.
2. The player or enemy die when their health reduces to zero due to constant attacks from each other.
3. When killed, an enemy that is not a dragon drops 1 gold coin.
4. This gold is added to the player’s total.

Alternate:

1. If the enemy kills the player, then the player has the option to restart the game from the first or can also quit the game.

Level: Blue

Post-Condition: The player continues navigating the floor.

Stakeholders: Player, Enemy, Gold

2. Use Case Name: Navigate Floor

Description: The game of Dungeon Master consists of a board 60 columns wide and 30 rows. The floors consist of five chambers connected with passages and consisting of walls, doorways, stairways, potions and gold. The player can only move one step at a time but in any direction. The player can climb floors using stairs located on floors.

Actors: Player, Enemies, Passages, Potion, Gold

Pre-Condition: Player is alive

Trigger: Player is spawned on the first floor

Basic Flow:

1. The player is spawned on the first floor with a certain number of enemies, potions and gold.
2. The player is allowed to move only one step but in any direction.
3. If an enemy is present at the next step then the player is able to attack the enemy.
4. The player can also collect potions and gold while navigating each floor.
5. While navigating, if the player collides with the walls or doorway then the screen displays invalid input.

Post-Condition: The player navigates floor by floor till he reaches the treasure

Stakeholders: Player, Enemy, Potions, Gold

3. Use Case Name: Change Difficulty

Description: The user can choose a certain difficulty mode before the player is spawned every time on the first floor. Based on the difficulty level the stats of the enemies increase or decreases.

Actors: Player, Enemies

Pre-Condition: The game is ready to be played

Trigger: The user is prompted to choose the difficulty level of the player to start the game

Basic Flow:

1. Before the start of the game, the user is prompted to choose the difficulty level of the player.
2. Based on that difficulty level, the stats of the enemies increase or decreases as following

Easy: Vampire (50 HP, 25 Atk, 25 Def), Werewolf (120 HP, 30 Atk, 5 Def), Knight (120 HP,25

Atk, 15 Def), Goblin (70 HP, 5 Atk, 10 Def) and Dragon (300 HP, 100 Atk,60 Def)

Hard: Vampire (60 HP, 35 Atk, 35 Def), Werewolf (140 HP, 50 Atk, 10 Def), Knight (130

HP,35 Atk, 20 Def), Goblin (80 HP, 15 Atk, 10 Def) and Dragon (370 HP, 110 Atk,60 Def)

c. The player plays with the updated stats.

Post-Condition: The user plays the game with the desired difficulty level

Stakeholders: Player, Enemy

4. Use Case Name: Pick Item

Description: The game has two main items namely – potions and gold. Potions increase the HP (Hit points or Health) and the effect of the potions vary depending on whether it’s a positive or negative potion.

Actors: Player, Item

Preconditions: Items have spawned correctly.

Trigger: Location of player and the item are the same.

Basic Flow:

1. Player moves to the same location as the item.

2. If the item is a potion, then the effects of that potion are applied to the player

2.1 If it is a positive potion the health, attack, defense is increased

2.2 If it is a negative potion the health, attack, defense is decreased.

3. If the item is gold, the player’s gold value is updated based on the value of the gold heap found.

Post Condition: The player acquires the item’s effects

Stakeholders: Player

5. Use Case Name: Generate Floor

Description: The floor is segregated into chambers or rooms. Enemies, items, the player are all spawned randomly in the various rooms. The location of the stairs which move the player to the next level is also randomized.

Precondition: Game has started.

Trigger: Player starts game or when player moves to the next level.

Actors: Items, Player, Enemies.

Basic Flow:

1. The basic map is generated with the help of a text file.

2. A random chamber is chosen and a predetermined number of enemies are spawned.

3. A random chamber is chosen and a predetermined number of potions and gold are spawned.

4. A random chamber is chosen and the player and staircase are spawned.

Post Condition: The entire map along with the player, enemies, items are spawned.

Stakeholders: Player