Team-Based Project Release 1 Deliverable

The goal of the project is for the user to be able to play a text-based roleplaying game that allows them to choose a class. The classes are of varying play styles that allows the user to pick the one that best suits them. They get to fight monsters, level up, and earn rewards while playing the game. The game ends when the user’s character dies.

Potential users include gamers who get to experience the game on a surface level, developers who get to play test the game and add new features that the gamers can use, and administers who get to see game statistics and what is most played and least played and help developers make better features.

**Use Cases: Class Creation, Fight, Player and Enemy Status, Leveling, Stat tracking, Character Death.**

**Class Creation** Program starts and allows the user to enter their name into the game that will keep track of their character name. This allows for a more personalized experience when creating their character. It will take any name typed and will store it for the duration of the run and cleared upon exit of the program. After the user enters their name the game progresses to class selection. There is a variety of classes based on the different styles in which the user might want to play. The classes include Rogue, Wizard, Berserk, and Knight. Rogues have less health but more damage they can deal, Wizards have spells they can use to attack with, Berserks deal heavy damage but lose health after every attack, and Knights have high health but deal less damage. Admins are granted 1000 health points and 100 damage points initially, making admin the strongest character class. But like the other classes, the admin character starts with 0 xp. Moreover, the admin takes the least damage at a time.

**Fight**: After the user selects their class the game runs a battle simulation which the developer dictates what enemies are available and at what level the enemy is. This will dictate enemy health and damage it deals. The options in the battle that are given to the user are battle info and an attack option. After the battle starts the user gets options to pick from to advance the battle. The attack option allows the user to spend an action to harm the enemy. There is potential for the attack to miss and then the enemy attacks and it will randomly hit or it won’t. Damage is a base value based on the level of the user and the level of the enemy.

For both enemies and the player, Java uses a pseudo-number random generator outputs a number between 1 and 6, inclusively. If the number is greater than 2, the enemy or player commits a successful attack. Otherwise the enemy or player misses.

**Player and Enemy Status**

**Sub tree BattleInfo:**The user can look at the battle info at any point during the battle. When they choose this option, the game dispenses information to the user based on stored information that shows the health values of the user and enemy, the experience value of the user, the damage both deals, and the names of both.

**sub tree Leveling**: After completing a battle, the user gains experience that adds up to eventually giving the user a level. Every level includes an increase in overall health and damage. This is stored temporarily with each playthrough resetting it. The developer and admin will have access to this information as well.

* Benefits of Leveling:
* The health of the player increases by 5 points when upgrading to Level 2.
* The health of the player increases by 10 points when upgrading to Level 3
* The health of the player increases by 20 points when upgrading to Level 4
* Starting from Level 5, the health of the player increases by 25 points.
* The player’s mana increases by 7 points after each leveling up.
* At the beginning of the game, the player has 0 xp points. After beating Level 1, the player’s xp points increase by 4 points. But starting from Level 2, the amount by which the player’s xp increases itself increases by 2 points until the player hits Level 4. To clarify what this means:
* At Level 1, the player’s xp points increase by 4.
* At Level 2, the player’s xp points increase by 6.
* At Level 3, the player’s xp points increase by 9.
* At Level 4, the player’s xp points increase by 12.
* Since Level 4, the player’s xp points continue to increase by 12 points after every battle victory.

The program will also passively keep stats in the background unless the user uses the battle info option. Other stats will not show but can be accessed by the developer and admin to see how things are running. Stats are held and stored temporarily until the program is done running.

**Character Death**: When a user is fighting and they lose all their health, the character dies. The game recognizes this, clears stat values and ends the code with a return of 0.