Term Project
Arena Battle

Instructions: Write a program that allows the user to generate a simple character that has the following attributes: armor, hit points, damage range and of course name. The user will then battle a list of creatures.

This lab will be worth 200 points split in the following ways:

Design Documents 15 points (Use cases and sequence diagrams extra credit): Use cases, class diagrams, and sequence diagrams
OO Design 25 points: Make sure to use to use a good object-oriented design
Required game play 75 points: Meets all requirements and stipulations
Extra features and functionality 85 + points: Your choice! Make it your game! Going above and beyond could earn you extra credit.
More Extra Credit: Present your game to the class.

Minimum Program Stipulations

Character Generation
1. The user should be able to create and save a character.
2. The game will display a list of characters already generated and allow the user to create a new character or use one of the existing characters.
3. The user should be able to keep or discard a newly generated character. The user will continue until they are satisfied.
4. The character generation will be based on a random roll of the die for all three required attributes.

Creature Generation
1. You must create at least 10 different creatures.

Game play
1. The game will be saved to a file along with the character and current creature list as well as the progress through the game. The game will automatically be saved after each successful round.
2. The user has a limited number of battle options but has to at least include:
   a. Normal Strike
   b. Block – Reduced damage, increased armor
   c. Berserk – Increased damage, reduced armor
3. If defeated, the user should be given the opportunity to reload the game before the last battle.

Must include the following OOP concepts
1. Abstract base class
2. Polymorphic behavior
3. Templates (Linked List)

Options for Extended Play

This is your game make it interesting for YOU. Some options might include, but not limited to:

1. Gold to be spent on increasing damage and armor.
2. Experience points.
3. Specific items for armor and weapons.
4. Increased battle options.
5. Character on character battles.
6. Special attacks.
7. Multiple attacks per round.
8. Critical hits.
9. Potions.