

Definition

We are developing a text-based adventure game with RPG elements in order to provide an immersive and entertaining experience for users. Input will be expected from the user throughout the course of the game as the user will have to make decisions for their character such as fighting, healing, viewing inventory and buying/selling items.

Analysis

The outputs returned by the program will include information about the character's situation and the story of the game. The main method will be implementing the abstracted classes and methods. The logic will be handled within individual classes and constructors. All individual data fields will be encapsulated and will be referenced via access and mutator methods.

Design

Only one module is required as we are only using the c++ platform to run the code. The classes and methods for the module are displayed in the attached UML diagram.

Execution Plan

We will divide into 2 teams. One team will focus on class development, and the other will create the storyline and its associated methods as well as integrate the classes into the main method. Our makefile will only consist of the c++ source code and the associated header files. Our goal is to complete the core functionality of the code before thanksgiving and move into testing and refinement.

Classes

- Character
 - Hero
 - Monster
 - Villain
- Inventory
- Item
 - Weapons
 - Potions
- Store

Character (String name, String type)	
- String name; - String type; - Inventory inv; - int level; - setMaxHealth(int i);	- int currHealth; - int maxHealth; - int offense; - int defense; - int gold;
+ Get and Set methods for variables (aside from setMaxHealth) + attack(Character enemy); + heal(int potionIndex); + run();	

Store(Inventory inv)	Inventory(Item[] weapons, Item[] potions)	Item(name, cost)
- Inventory inv;	- Item[] weapons; - Item[] potions; - Int activeWeapon;	- String type; - int cost; -
+ Get and Set inventory + Buy(Item i); + Sell(Item i);	+ Get and Set methods for variables + disInventory(); + drop(Item i); + add(Item i, String type);__	+ Get and Set methods for variables

Weapon(type, damage)	Potion(int recovPoints)
- String type; - int damage; - int cost;	- String type; - int recovPoints; - int cost;
+ Get and Set methods	+ Get and Set methods