**Roguelike Project Outline**

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**Project Goals:**

Our team will design and implement a text-based, rogue-like RPG game. We will be using the Curse library to implement the input and output of this game. Upon starting the game, the player will be greeted with a title screen, followed by a screen that explains the rules and objectives of the game in addition to display of key bindings. This screen with be accessible at any point during the game. Once the game has started, the player will move around the map using the arrow keys. The player starts on the first floor of a dungeon, his goal to find the staircase that leads him further into the dungeon. This drives the player until he reaches the bottom floor, at which point he will encounter the boss, which he must defeat to finish the game.

The player will be met on his quest to defeat the boss by a horde of menacing enemies of many kinds. The player may enter into combat with these enemies, employing weapons and armor he has found along the way to increase his odds of survival. The player also gains experience points with every enemy defeated, which in turn allow the player to level up and increase in strength.

The game may only end in one of two ways: triumphant victory over the cruel lord of the dungeon, or humiliating defeat at the hands of his minions. Only the player’s skill (and luck) will decide his ultimate fate.

**Project Schedule:**

We will complete all design and conceptual work in the first sprint, which will be presented on April 18th.

We will implement level generation, player movement, and basic input/output in   
Sprint 2, which will be finished on April 25th.

The team will implement basic melee combat, enemies, and a basic leveling system in Sprint 3, which will be finished on May 2nd.

The team will expand the combat, enemy, inventory, and leveling systems in Sprint 4. This sprint will also the see the completion and refinement of the input and output systems, and will be finished on May 9th.

In the final sprint, the team will focus on advanced combat and a player class system. These enhancements would be in place for the projects final version to be presented on May 16th.

**Class Design**

**Game** Starts/ends the game. May perform other large functions between objects. The heart of the program.

**Input** Receives input from the player and translates it to a game function.

**Tile** An individual space in the game world.  
Tiles can contain ground, walls, empty spaces, the player, enemies, items, stairs, etc.

**Floor** Floor is an object made up of Tiles. Represents one level of the dungeon.

**GameObject** Simple base class that will contain coordinates and very simple methods that apply to all game objects.

**Character** Base class for player and enemies. Will ideally contain movement and attack methods that can be inherited by its children.

**Player** Child of Game Object/Character. It's the player, and will include attributes related to combat and leveling.

**Enemy** Child of Object/Character. It can move around and attack the player.

**Item** Base class for objects the player can pick up to heal/modify stats.

**Inventory** An object that Characters have that will hold Item objects.