Topic and Group Selection Template

Group members:
Jennifer Ai, Ben Fickes, Marcos Lopez

Group name: C--

CCIS GitHub location: https://github.ccs.neu.edu/mlopez312/CS3520-2017FA-PROJ

Provide a high-level prose description of your project.

Our game will be a 2D platformer with progressing difficulty in levels where the main mechanic of the game is for the player to alternate between different type of bullets and shoot the correct bullet at a target. For example, if an enemy were hidden, the player would have to use the specialized bullet that reveals invisible targets in order to destroy their disguise and then alternate to another bullet to permanently destroy them. The game will also feature hidden platforms or walls that the player can use to maneuver around the game and will be revealed once the player shoots at this hidden objects with the correct bullet.

Describe the major features of your project. Provide this in a "checklist" format. Be as specific as possible, and provide *at least* five distinct features.

- The player is able to alternate between "types" of bullets.
- The player can reveal hidden platforms/walls through different toggles.
- The player can shoot enemies.
- The player can run, jump, maneuver on platforms, etc.
- The player can avoid attacks from different types of enemies.

Describe the advanced feature(s) of your project, and the library/SDK/API you plan to use.

The advanced features we plan on using are 2D graphics and physics, and we plan to use SDL in order to implement our game.

Describe plans for what kind of user input your program will take and how it will affect the state of the program.

We will take in user input from the keyboard and mouse. The keyboard will change the state of the game by moving the player and the mouse will allow the player to aim and shoot. We will use WASD and the arrow keys for movement, jumping, and possibly crouching. Since we will have two types of bullets, we will allow the player to aim with the mouse and use right and left clicks to shoot each type of bullet.

Briefly describe plans for dynamic memory management and class inheritance structure.

Allocate enemies and delete them when destroyed. We also will make different levels and manage memory so that only one level must be loaded at a time. We will make specific different types of enemies inherit from a generic Enemy class.