

## CSCI200 Project Proposal

Jacob Odenthal and Owen Talberg

- I. We propose a game where the player is a revived cowboy searching for the bandit who beat him in a duel. The player first starts out in a graveyard, and then transitions to other areas as the game goes on. The player eventually gets to the perpetrator and reenacts the duel to get their revenge on the bandit.
- II. The game contains multiple areas, one of which is randomly chosen to hold the player's objective: the revolver. This revolver can be used to eliminate the enemy on the playing. In order to complete the game, the player must find the revolver, and then use it to beat the bandit without the bandit beating the player first. The game's layout is based on a graph, visualized with Swing. This layout has one area which holds a trap for the player, one that holds the revolver, and one that holds

the bandit. nodes that cannot be traversed through because of obstructions, making each level different. Once the player goes through the starting location, they cannot return to the location, like a directed graph which a node points to one node but not vice versa. Each time the player goes to a trap area results in the loss of a life. Once the player loses all three of their lives, the game is over.

- III. As mentioned previously, the game will use a graph in order to hold the areas and the directions to them. The player will only be able to travel to spots allowed with a directed graph, so players need be careful of the path which they choose. The game requires a graph for this reason, it allows for only certain directions between locations on the graph if they exist.
- IV. We will be using BFS to find the shortest distance between the player and the objective.