Project Description:

In this project, I will program a checkers game. The player would have the option of playing against another player or AI. The AI would be programmed to 3 difficulties (easy, medium and hard).

• For the hard mode Alpha beta pruning and mini max algorithms will be implemented to design the AI.

• For the medium mode the AI would follow the general rules of the game that could lead to winning.

• For the easy mode the AI would make random moves and save the progress to improve.

Description of User interface:

• Main menu scene: this would allow the player to choose either to play against another player or choose one difficulty mode of AI. (Other features might be added such as instructions).

• Game Scene: This would be a normal checkers board set up.

• Result Scene: This would show which player won.

Libraries that will be Used:

The libraries that would be used include but are not limited to:

• Pygame

• Math

Features that would be implemented and demoed by first milestone (Nov 25th):

• Complete coding the game mechanics for two players and finish the user interface. The game should work with little to no errors.

• Start developing the easy mode AI.

Features that would be implemented by Final Demo:

• Complete the other two modes of AI (one would require implementation of Alpha beta pruning algorithm).

• Test and make sure the game is running with no errors and add features for the user interface if there is enough time (e.g instructions).