**Description:**

I am going to create a Harry Potter theme based online monopoly game. Up to four players can play this game online. The game will also feature a multiplayer mode in which two users can play the game on the same device. I will be using ‘PyGame’ to create the game and all the libraries associated with it. If I have enough time I will also try to introduce the Player Vs. Computer mode in which the player competes against the computer which is the A.I.

**Libraries:**

1. PyGame

2. Tkinter

3. Socket

**User Interface:**

**Main Screen:**

On the main screen I will display the start button, quit button and rules of the game. The start button will lead towards the game modes which include online mode and the player vs player mode. Selecting the online mode will lead towards another window in which the server connection will be handled, and the players will be connected. After that each player gets to choose his/her name and the respective token. After that the game will start.

**Gameplay:**

At the centre of the screen there will be the game board with all its components. The game will be 2 dimensional with decent graphics. On the four corners of the screen there will be the status box for each player that will be visible to everyone. In this way each player will know how much property the other user owns, how much houses/hotels he has etc. Since it is a Harry Potter based monopoly everything will be based on Harry Potter characters. I will also insert a chat box at the bottom of the screen so the users can communicate with each other and send messages. The code for this feature might be used from the 15-112 homeworks.

**Work to be done by November 24th, 2019:**

By November 24th, 2019 I plan to get done with the code for online mode. At that stage the game will have very basic features such as buying property or giving it up for auction. The graphics for the game will not be very impressive by that stage.

1. **Home Screen:** The Home screen will have the start, quit and instructions button.
2. **Start Screen:** The start screen will have options for multiplayer and online mode. Choosing the multiplayer mode will lead the use towards another screen in which the users decide their tokens and their names. The tokens will be based on Harry Potter characters. Choosing the online mode will lead the user towards the server connection screen in which first the connection will be made to the server and the four players will connected. The Multiplayer mode will be added later. Only the option for multi-player mode will show
3. **Gameplay:** The game screen will display the board in the centre with associated functions such as rolling the die, buying property, mortgaging property etc. On the four corners of the screen there will be status boxes for the four players playing. The boxes will display the current status of each player regarding his/her property. At the bottom of the screen there will be a chat box so the players can message each other.

**Work to be done by December 2nd, 2019:**

Between November 24th and December 2nd, I plan to get done with improving the graphics, adding some sound effects and adding more features to the game.

1. Improving the graphics and the user interface
2. Adding more features such as mortgaging property, building houses and hotels.
3. Adding the multiplayer mode