

Project 2 Code Documentation

Initial Refactoring Changes

- 1) Changed recursive logic for input validation to iterative logic
- 2) Abbreviated “horizontal” and “vertical” to “H” and “V” for better UX
- 3) Added turn counter for Game class to keep track of number of turns. Individual player plies can be calculated from this number and information about who the current player is

Implementing AI

- Enable users to select between 1 or 2 human players in the beginning
- If 1 human player, then the opponent will be an AI
- One among 3 difficulties (Easy, Medium, Hard) can be chosen for the AI opponent
- AI opponents are modeled as Player objects with is_ai set to True and an ai_difficulty field
- Gameplay loop has been updated such that all functions requiring player interaction can incorporate the AI opponent too
- The selection algorithm for each of the difficulties can be found in player.py under the get_shot_placement function

Implementing Custom Addition

- Players can view their individual stats using the “P” command during their turn
- The view_stats function in the Player class handles displaying the player stats. It makes use of a get_stats function to get the stat values
- Players can display the overall scoreboard using the “S” command during their turn
- display_scoreboard function handles displaying the scoreboard. It relies on the get_stats output from both player objects in the game