

Description

- 1) Bag- Bag class contains the letter tiles. It gives tiles to the player and keep tracks of what is left in the bag. It also gives out score of each letter to the player
- 2) Board- Board is where the move is made. Board is where you store your moves. It also gives where the valid coordinates are to store your move
- 3) ComputerPlayer- ComputerPlayer is where computer looks at the board and generates the best move. It also sets the tray after each move.
- 4) Console - Console is used to solve the console game. Dictionary should be passed as a text file for console solver to work. Standard input of board is sent to solve the boards
- 5) Coordinate - Coordinate consists of row and column and it stores coordinates of board
- 6) Dictionary- Dictionary class stores from the input text file and stores the word in Trie data structure. Later, it checks if a word is valid or not. For wildcard/wildcards, it will generate list of valid words.
- 7) EventHandler- It encapsulates the click of a mouse and makes the clicks on button, trays and board possible. It will use those clicks to change the backend of the code
- 8) GUI - GUI is where we animate the canvas. It refreshes all the time to give us realtime backend view of the game
- 9) Main- Main Class is where game is initialized
- 10) Score- Score is where score of players are tracked.
- 11) HumanPlayer- HumanPlayer keep track of its tray. Checks if a placement is valid or not. It also keeps track of the human score. It should keep score in score class but I did not want to ruin word solver console after it was created by change the score class.
- 12) Tile- Tile consists of letter and its score
- 13) Trie- Trie Data Structure stores the words of the dictionary, which can accessed later in tremendous speed.

Design Diagram

