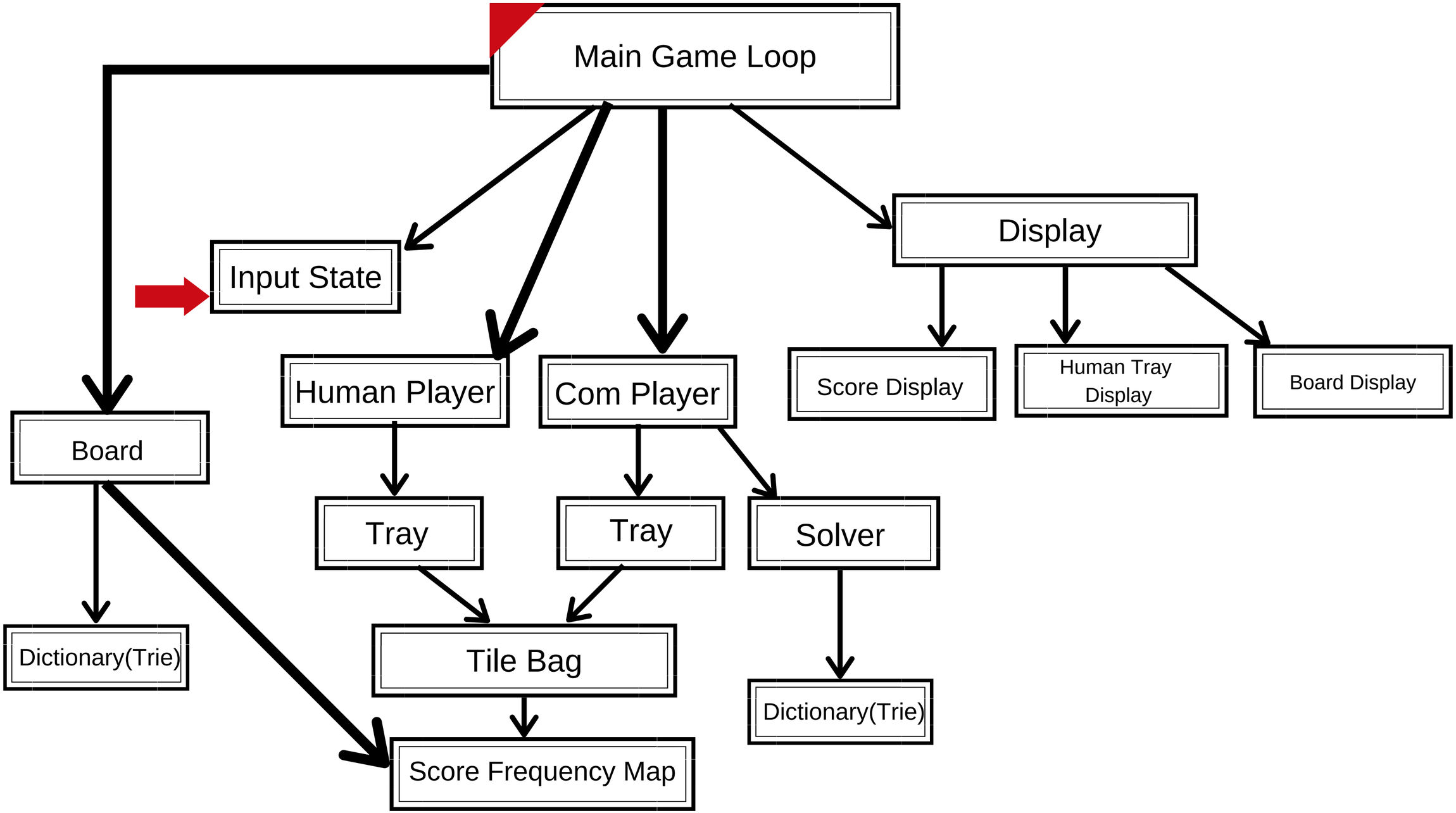
Main Game Loop
Input State
Display
Board
Human Player
Com Player
Score Display
Human Tray Display
Board Display
Tray
Tray
Solver
Dictionary(Trie)
Tile Bag
Dictionary(Trie)
Score Frequency Map

Explanation

The game manager controls the game. Game manager creates the objects necessary for the game. First it creates the Board object, Tile bag object and the Score Frequency object.

The Board object contains the board string array and maintains the board. The object regulates addition and deletion of new tiles in the board, checks if a move is legal. The board has a dictionary objects to check if the word played is valid.

Tile bag contains the original 100 tiles. The tiles are simply letters and '*'. Tile bag uses Score Frequency to find how many tiles of each letter will be there in the tile bag.

Score Frequency simply map the corresponding scores and number of tiles to a particular letter or char.

Then the game manager creates a computer tray and a human player tray. The trays take tiles from the tile bag.

The trays and the tile bag extends a tilelist class to get the common properties like addition and deletion of tiles, size.

Then the game manager creates the human player and the computer player passing their corresponding trays as arguments.

The computer player extends the player class to get common fields and methods like word to be play, indexes of the word to be played, passing the word to the game manager. But computer player has its own solver to check the best possible move. The only job of the solver is to find the best possible move for a given board and tray. The solver uses a dictionary object.

The game manager regulates the turns using the player objects, checks if the game is over, updates the board as necessary using the board object.

The game manager sends the current state of the game to Game Gui or Game display after every update. The game gui uses the tray maker, board gui and score bar objects to display the current state of the game in front of the human player.