Time complexity of the all Funtions used in the code of Tic Tac Toe Gamessf

1. Print\_board() - As we know the board size is fixed and has constant number of element (i.e -9), so the time complexity of this function is O(1).
2. Check\_win(player) – This funtion is used to check all the possible winning combinations. So it will check coloumn, row and diagonal (3 rows,3 coloumns and 2 diagonals so total 8 combination). But as we know the board has constant element so the time complexity of this function is also O(1).
3. Perform\_toss(player1\_name, player2\_name) – In this function I have used a random.choice() function which used for selection and time complexity of this function is also O(1).
4. Play\_game(player1\_name, player2\_name) – This function is used to handle the main logic of the game. And it contains loop so inside the loop the complexity depends on the player moves and game outcome.(but in the worst case if the game is tie then the time complexity will be O(9) ).