

TIC TAC TOE GAME

Introduction:

This report is based on a Tic Tac Toe game that is implemented in Python. The game is designed for two players to play against each other. The game board is represented by a list of 9 spaces, where each space can be either empty, represented by a space character, or filled by an 'X' or 'O' depending on the player's move.

Methods and functions:

`print_board()`: This function is used to print the current state of the game board. It takes the list of spaces as input and formats it into a 3x3 grid.

`player_move(icon)`: This function takes the player's icon ('X' or 'O') as input and prompts the player to enter their move. The player's move is then checked to make sure it is a valid move (i.e. the space is empty) and then updates the game board accordingly.

`is_victory(icon)`: This function checks if the player with the given icon has won the game by checking all the possible winning combinations on the game board. If a winning combination is found, the function returns True, otherwise it returns False.

`is_draw()`: This function checks if the game has ended in a draw by checking if there are any empty spaces left on the game board. If there are no empty spaces, the function returns True, otherwise it returns False.

Game flow:

The game starts with an empty game board and the first player is prompted to make their move. After each move, the game board is printed and the game checks if the player has won or if the game has ended in a draw. If the game is not over, the next player is prompted to make their move. The game continues in this fashion until either a player wins or the game ends in a draw.

Conclusion:

The Tic Tac Toe game is a simple and classic game that can be easily implemented in Python. The game logic is straightforward and the methods and functions used in the implementation are easy to understand. The game can be easily modified to add additional features or to make it more challenging.