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Program 1 : Tic-Tac-Toe

(i) Creating a board

→ create a list called 'board', that initially start off with 10 empty values.

→ Since user can input between 1-9 we restrict values from 1-9 not 0-8

(ii) Insert letter ()

→ Function takes 2 parameters

(i) letter (ii) position

This function just add the given letter to specified position in the list.

(iii) SpaceIsFree (pos)

→ Give the overview whether space specified by the user is empty or not.

Space input should be between 1-9

```
def SpaceIsFree(pos):
```

```
    return board[pos] == ' '
```

(iv) print(Board)

→ This function takes the board as a parameter & will display it to console.

(v) isWinner ()

→ Based on current board this will tell if given letter has won or not.

It has the parameters: board (bo) & letter (lc)
The letter must be a 'X' or 'O'.

* main ()

→ Startup Function

→ Intern calls various function which has implemented earlier.

* isBoardFull ()

→ Boolean Function.

→ Board as parameter and return true or false on basis of space available on board.

* playermove ()

→ we take move as input and check for its validity.

→ If move is valid we will move letter to another specified space on board, otherwise, we will continue to ask the user for input.

* cmpmove ()

→ If there is winning move take it, and if the player has possible winning move on their turn move into that position.

→ take one of the edges, if more than one is available random decide.

* selectRandom ()

→ The function will randomly decide one move to take given a list of possible position.