

## Tic Tac Toe

① initialize board dictionary as

1: ' '	2: ' '	3: ' '
4: ' '	5: ' '	6: ' '
7: ' '	8: ' '	9: ' '

② def function print Board  
print the board

③ def function SpaceFree  
check board position if it is empty  
return True

④ def function check win()  
check if board1 == board 2 & board[1] == board 2 and  
board 1 != ' '

return True

Similarly check for the second row if it true  
return True

Similarly check for the third row if it true  
return True

WY check for diagonals if it is true  
return True

otherwise(else)

return false

⑤ def function check draw():  
check if board[key] == ' ' the return false  
else  
return True

⑥ def insertLetter

check if SpaceFree(position) is true do

board[position] = letter

printBoard(board)

if checkDraw():

print draw

else if checkwin():

if letter == 'x':

print Bot wins

else

Print you win

⑦ def playerMove():

take position from the player and

insert into the board

return

⑧ def compMove():

initialize bestScore = -1000

initialize best Move = 0

check the box with letter 'o'

and don't place into it

check for the possible place and place value 'x'

use MinMax Algorithm

to maximize the probability to win

⑨ while not checkwin():

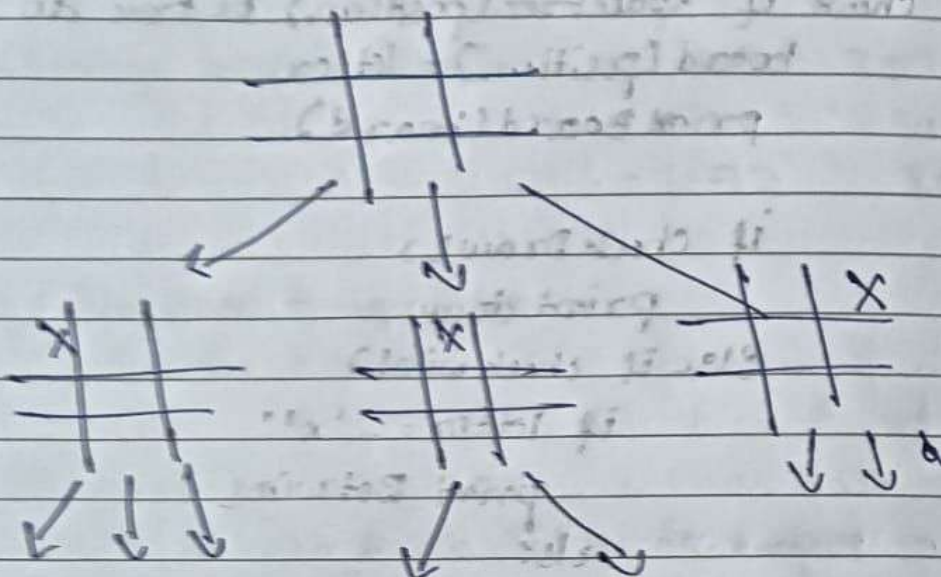
compMove()

playerMove()



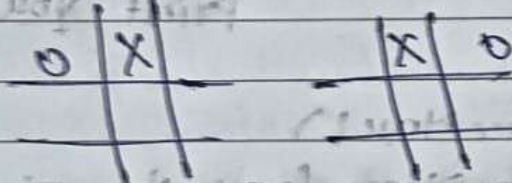
## State Space tree

Bot:



9 possibilities

Player:



8 possibilities each

Bot

$\frac{3 \times 3 \times 3}{1/10}$