10-11-20

B Praneeth
1BM18CS023

AI lab test-1

Tic-tac-toe (Computer vs Computer)

Program:

```
winner = ""
board = ["_","_","_","_","_","_","_","_","_"]
current_player = "C1"
def play_game():
    global current_player.
    while game_still_going:
        handle_turn(current_player, current_symbol)
        check_if_game_over()
        flip_player()
        if winner == "X":
            print("Computer 1 won the game")
        else if winner == "O":
            print("Computer 2 won the game")
        else:
            print("The game ended in a tie")
```


B Praneeth

10-11-20

AI lab test - 1

B Praneeth
1BM18CS023

```
def handle_turn (player, symbol)
    w = stop_win()
    if w != None
        board[w] = symbol
        display_board()
        return

    w = is_win_present()
    if w != None
        board[w] = symbol
        display_board()
        return

    else:
        for i in range(9):
            if board[i] == "_":
                board[i] = symbol
                break
```


B Praneeth

AI lab test-1

B Praneeth
1BM18CS023

```
def check_if_game_over():
    check_for_winner()
    check_for_tie()

def check_for_winner():
    global winner
    row_winner = check_row()
    column_winner = check_columns()
    diagonal_winner = check_diagonals()
    if row_winner:
        winner = row_winner
    elif column_winner:
        winner = column_winner
    elif diagonal_winner:
        winner = diagonal_winner
    else
        winner = None

def flip_player():
    global current_player
    global current_winner
```


B Pran

B Pranee 18
1BM18CS023

```
if current_player == "Computer 1"
    current_player = "Computer 2"
    current_symbol = "O"
else:
    current_player = "Computer 1"
    current_symbol = "X".

def win_is_present():
    for i in range 9:
        if board[i] == '_':
            board[i] = current_symbol
            check_if_game_over()
            board[i] = '_'
            if not game_still_going:
                return i

def stop_win():
    flip_player()
    global game_still_going
```


B Pranee

```
for i in range(9):
    if baard[i] == '_':
        board[i] = current_symbol
        w = check_if_game_over()
        board[i] = '_'
        if not game_still_going:
            flip_player()
            w = check_if_game_over()
            game_still_going = True
            return i
        flip_player()
        w = check_if_game_over()

play_game()
```