

**BANGLADESH ARMY INTERNATIONAL UNIVERSITY OF SCIENCE AND
TECHNOLOGY(BAIUST)**



Department of Computer Science & Engineering

Lab Report

Course code: CSE 404

Course Title: Artificial Intelligence Sessional

Submitted By:

***Shovan Bhowmik
Lecturer, Dept. of
CSE***

Submitted To:

Name: Ahamed Jamil Bhuiyan

ID: 1107026

Level -4

Term-1

Objective

In this lab we implement a Tic Tac Toe game. In this lab we know about how to implement Tic Tac Toe game.

Introduction

Tic Tac Toe is a game in which two players participate and draw a 'O' or 'X' in a square of a grid consisting of nine squares. Each player will be assigned a symbol. The goal is to make a straight or diagonal line using your symbol. The first one to do so wins.

Method

Various functions are used in implementing this game:

- **def insertLetter (letter, pos)**

Here we define this function as 'insertLetter' and the parameter of the function is 'letter and pos (position)'. We define functions in this code so that we place letters on the board and in positions.

- **def spaceFree (pos)**

Here we define 'spaceFree' and the parameter is 'pos (position)'. We define this function so that we can confirm the location for the location. In this function, we can keep the letter if the condition is true

- **def printBoard (board)**

We define this function for board printing so that we can play games.

- **def isWinner (bo, le)**

Here we define the function 'isWinner' and the parameters are bo (board), le (letter). We use this function to see in which combination we get the winning combination.

- **Diff PlayerMove**

We use this function to see how long the player lasts. In this function we use try and except

- **def compMove**

We use this function to check how many times the computer moves. But there is a difference between 'Playmov' function and 'Compmov' function. An additional function is required in 'CompMove'. Then we move back to verify where we are.

- **Cornersopen**

With this function we check the corners. First we check the corners then check the middle space. Then we check the corners again. If we fill the 1st corner then the chances of winning are high.

- **SelectRandom**

We use this function so that we can place any value in any random place.

- **def isBoardFull (board)**

We use this function to check if the board is full.

- **def main**

This is the main function. In this function we will try to show the board. The board will call from the 'printBoard' function. In this function we call the 'isBoardFull (board)' function twice. Once for the computer, once for the player.

Discussion

In this lab, we learned a few game called Tic Tac Toe. It's an easy game to play but its implementation isn't as, during this lab we came to understand the way to implement this game. We learned about some in-built functions along the way. it's now possible for us to make an analogous game or a distinct game which features a similar approach.