

# National University of Computer and Emerging Sciences, Lahore Campus

	Course:	Operating Systems	Course Code:	CS 2006
	Program:	BSCS [ 4A - 4B ]	Semester:	Spring 2024
	Due Date	(Sunday)24-March-2024 11:00 pm	Total Marks:	50 marks
	Type:	Assignment 3	Page(s):	1

## Important Instructions:

- **You are not allowed to copy solutions from other students. We will check your code for plagiarism using plagiarism checkers. If any sort of cheating is found, heavy penalties will be given to all students involved.**
- **Late submission of your solution is not allowed.**

## Statement :

[Marks:50]

Design a Tic Tac Toe game in C using two threads, one representing the player and the other representing the computer. The game should be played on a 3x3 board where the player (marked as 'X') competes against the computer (marked as 'O').

In this version, the playerThread and computerThread functions wait for a condition to be signaled before making a move (you can use flag or pipe or anything else which seems more appropriate to you). When the player or computer makes a move, they signal the other thread to wake up and make their move. This achieves synchronization between the two threads without using mutexes or semaphores.