

COL216 : Assignment 2

II Semester 2019-2020

Release Date: 12 January, 2020
Submission deadline : 11:55 pm, 19 January, 2020

General Instructions

1. You will be using QtSpim Simulator that was installed in Assignment 0 for this Assignment.
2. The assignment has to be done in groups of 2. Only one member of each group should submit the assignment on Moodle.
3. Each group member should understand the problem and equally contribute to the solution. Demos would be held for each lab for evaluation.

Problem

Write a MIPS Assembly Program to emulate a game of Tic-Tac-Toe, also called noughts and crosses. It is a two-player game, X and O, who take turns marking the spaces in a 3x3 grid. The player who succeeds in placing three of their marks in horizontal, vertical or diagonal row is the winner. The game can also return in a tie.

Input

Your program should take player inputs from the console and take the decision based on the inputs from both the players. The code should check if the input is a valid input after each turn.

Output

The program should print the final board and the outcome (Winner or Tie).

You would be using IO from the console in this assignment. Please refer to this example code to get familiar with MIPS IO.

https://ecs-network.serv.pacific.edu/ecpe-170/tutorials/example3_io.asm/view

Other instructions

Please refer to this document for help on MIPS Assembly language and QtSpim.

<http://www.egr.unlv.edu/~ed/MIPStextSMv11.pdf>

There are no physical labs for this assignment as well (Yayyy!).
Please post your doubts on Piazza and we would be able to get back to you as soon as possible.