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| **SEMESTER** | | | **FALL-2021** | **CLASS AND SECTION** | | **BSCS-3A** |
| **TITLE OF PROJECT** | | | | | | |
| **TIC TAC TOE GAME** | | | | | | |
| **Group Members** | | | | | | |
| **S#** | **Student(s) Name** | | | | **Enrollment Number** | |
| **1.** | **Nimra Mushtaq** | | | | **02-134202-018** | |
| **email:** | | **02-134202-018@student.bahria.edu.pk** | | |
| **2.** | **Tayyaba Imam** | | | | **02-134202-056** | |
| **email:** | | **02-134202-056@student.bahria.edu.pk** | | |
| **3.** | **Shahzadi Zainub** | | | | **02-134202-051** | |
| **email:** | | **02-134202-051@student.bahria.edu.pk** | | |
| **EXECUTIVE SUMMARY OF PROJECT PROPOSAL** | | | | | | |
| Tic-Tac-Toe game can be played by two players where the square block (3 x 3) can be filled with a cross (X) or a circle (O). The game will toggle between the players by giving the chance for each player to mark their move. When one of the players make a combination of 3 same markers in a horizontal, vertical, or diagonal line the program will display which player has won, whether X or O. | | | | | | |
| **PROJECT PURPOSE, SCOPE AND OBJECTIVES** | | | | | | |
| The objective is to create an easy game as common as tic tac toe which can be played unlimited number of times using the emulator8086.It provides a worthwhile insight into working of 8086 processor. It reinforces the ideas of 8086 programming language.  The computer implementation of the game Tic-tac-Toe has many features as compared to the traditional way of playing it with paper and pencil.  The various features are:  The game has been made user friendly with proper use of LabVIEW software  The user can play as many games as possible without any interruption  The user can choose any symbol he/she wants to  A player marks any of the 3x3 squares with his symbol (may be “X” or “O”) and his aim is to create a straight line horizontally or vertically or diagonally with two intensions: a) Create a straight line before his opponent to win the game. b) Restrict his opponent from creating a straight line first. In case logically no one can create a straight line with his own symbol, the game results a tie. Hence there are only three possible results – a player wins, his opponent (human or computer) wins or it’s a tie. | | | | | | |
| **PROJECT DESCRIPTION (most important part)** | | | | | | |
| Tic-Tac-Toe is a game which we have all played at some point in our life and its sheer simplicity contributes to its widespread adoption, making it one of the most popular pen and paper games.  Tic-Tac-Toe is a simple two-player game played in turns where each player places their mark on a 3x3 grid with the goal of having three consecutive marks in either the horizontal, vertical, or diagonal direction. The game can end in three possible states of either winning, losing, or drawing.  Implementations:   * You need an 8086 emulator to run this game. * It is a 2-player game. Player 1 will place 'X' mark and Player 2 will place 'O' mark. * Has option to repeat the game after it is over. * Character inputs will be checked, if you enter any invalid character, it will prompt to input again. * If you try to set mark to a cell already marked, it will prompt to input again. | | | | | | |
| **TEAM PROFILE** | | | | | | |
| All team members equally participated in creating this project. We followed this design through to successful simulation of the code and obtaining all the parts.  Project Code made by all three members.  Design logic: Tayyaba Imam  Project Proposal and Presentation: Nimra Mushtaq  Project Debugging and Report: Shahzadi Zainub | | | | | | |

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| **ASSUMPTIONS AND CONSTRAINTS** |
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| 1. GUI is not so attractive. 2. Only keyboard interface is implemented, mouse is not used in the game. 3. The tic-tac-toe game met all initial project goals, except the possibility of incorporating a sound when a space was claimed by a player. That feature was neglected to limit the complexity of the project. 4. This project could be expanded to include the ability to play against the computer. |
| **PROJECT DELIVERABLES NOT CHANGEABLE** |
| **Deliverables include**   * Software Project Proposal. * Project progress * Project report * Team member’s work, as per their contribution, you should have to be honest with your future. |
| **Time Line** |
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| **For Teacher Use Only** |

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| **REMARKS** |
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| **Course Teacher:** | **Aisha Danish** | **Signature** |  | **Date:** |  |
| **Lab Teacher:** | **Sir Muslim** | **Signature:** |  | **Date:** |  |