

ENG/ AMGAD
SAMIR

Final C project

*Basic
embedded
diploma*

TIC-TAC-TOE GAME

Write a C program of a tic tac toe game.

Modes:

The game shall have two modes:

1. Multiplayer mode (where two players are playing against each other).
2. Single player mode (where only single player is playing against the program).

Inputs:

The game should only accept the following inputs:

1. Input to quit the game at any time.
2. Input to select between the two available modes.
3. Input with the position of where to place your sign on the tic tac toe board using the NUMPAD.

Operation:

1. The game should detect if winning or draw position occurred.
2. The game should detect who is the winner.
3. After detection of the winner the game should ask if you want to play again to start from the beginning or it should quit.

Display:

1. The game should display the board empty at the game beginning
2. Then it should display the updated board after each player's turn.
3. The game should display any necessary guiding text for the user.

For example:

- The software should display a text that asks the user to choose between the two available game modes (single player or multiplayer).
- The software should display which player of the two players is the winner.
- Also it should display the number of the player whose turn it is.
- The software should display any guiding text like the text that asks if the player wants to play again or if the player wants to quit the game.

Bonus:

Inside the single player mode implement a smart algorithm that tries to win the game against the user.

Project delivery:

- 1- Assume any missing requirements.
- 2- A screen recording video should be made showing the system behavior and the applied features.
- 3- Source code should be sent to the assignment email for review and evaluation.
- 4- Delivery should be done by the end of 17th of April (2 weeks now).