ECE114L – PROJECT 1

TIC TAC TOE

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1. **OBJECTIVE**

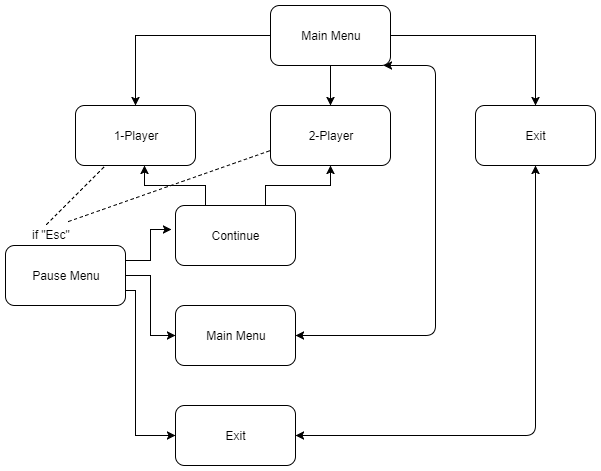
Build a C++ program for the game Tic Tac Toe, with 2 different modes: player vs. computer, and player vs. player.

1. **BACKGROUND**

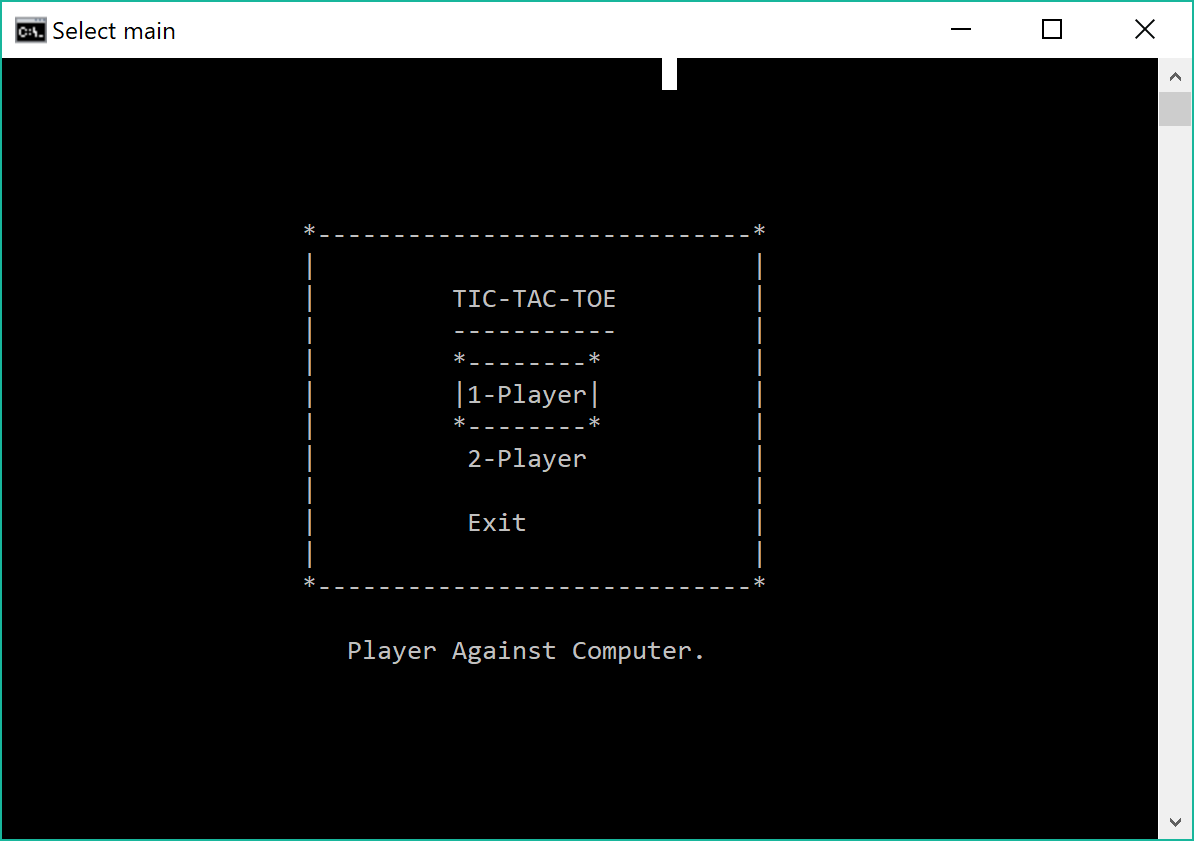
Discuss your selected topic lol

1. **RESULTS**

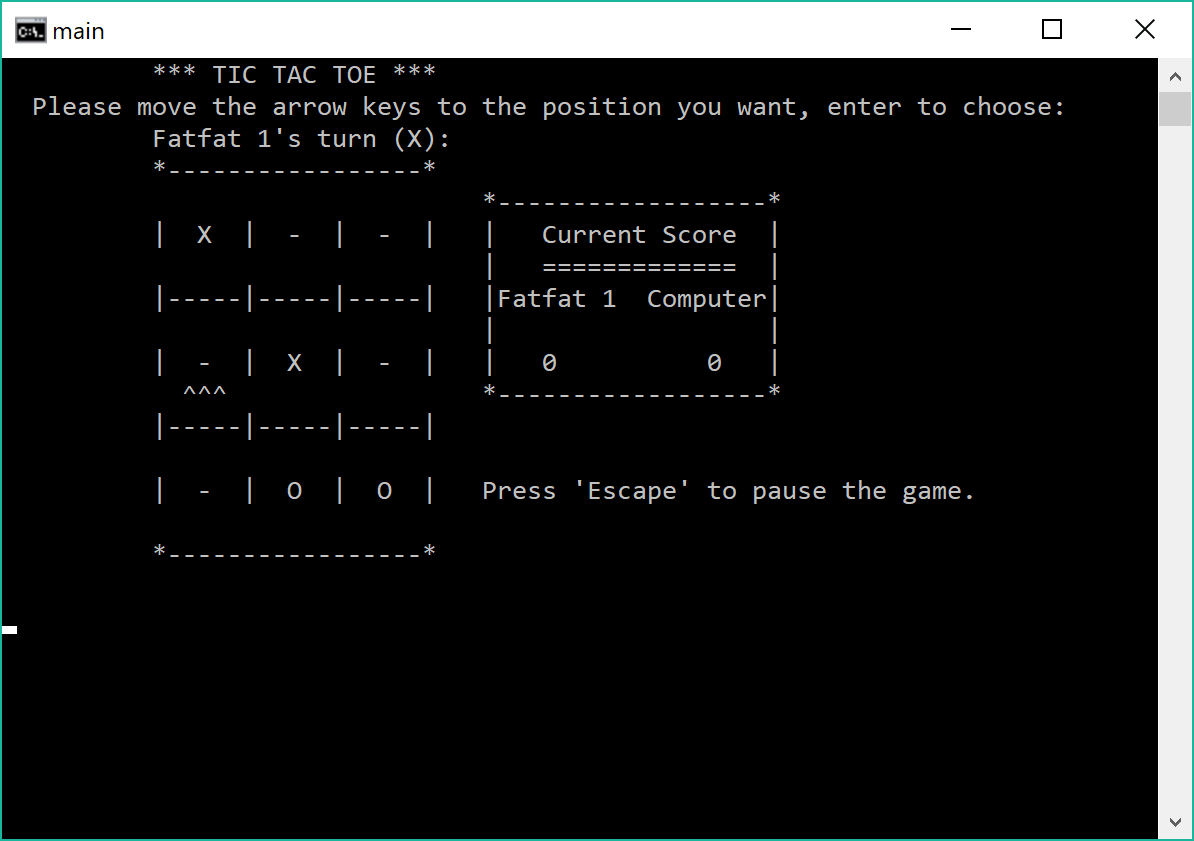
We created a program that asks user to use the arrow keys to move to and select the desired positions, and the Esc key to escape the program.

The steps of the program are illustrated in Figure 3.1:

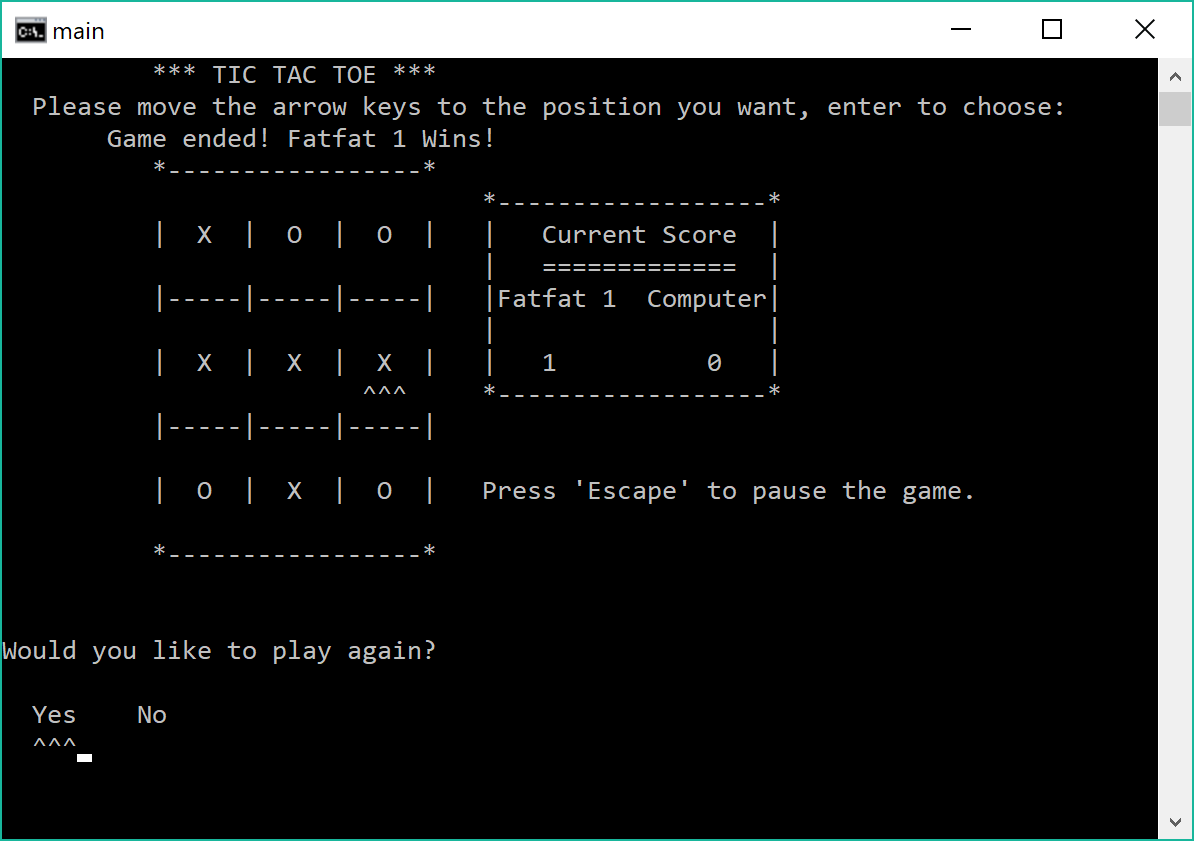
*Figure 3.1 – Program steps?*



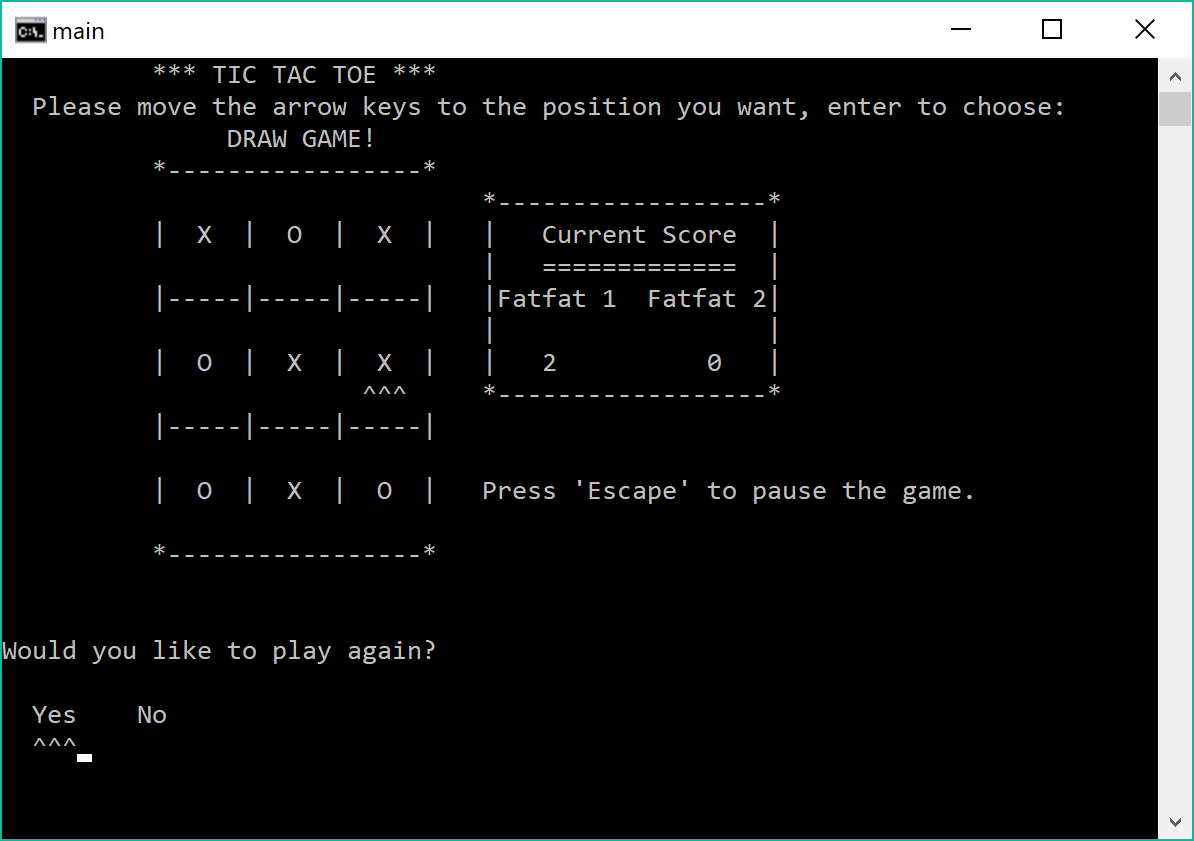
*Figure 3.2 – Screenshot of the program output – Main menu*



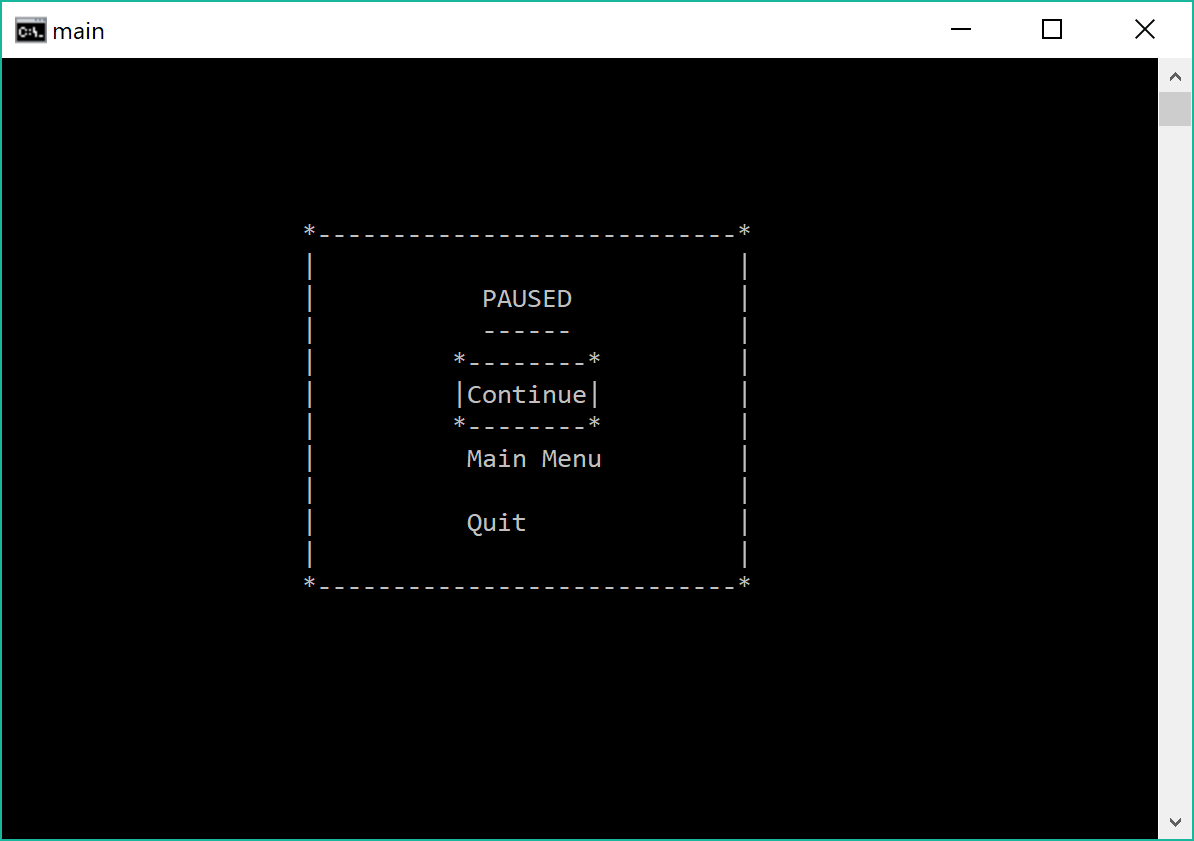
*Figure 3.3 – Screenshot of the program output – “1-Player” (player vs. computer) mode*



*Figure 3.4 – Screenshot of the program output – One player wins a round*



*Figure 3.5 – Screenshot of the program output – “2-Player” (player vs. player) mode*



*Figure 3.6 – Screenshot of the program output – Pause menu*

1. **ANALYSIS**

**Role of each member:**

* **Jim:**
* Set up the program’s layout, research on using arrow keys in displaying the program, write the menus and taking user’s inputs
* Write the 2-player mode
* Research on doing the computer’s moves
* **Kim:**
* Set up the class and its functions
* Write the 1-player mode
* Research on doing the computer’s moves

**Result Discussion:**

LOL WHAT IS THIS

**Calculations Discussion:**

SMART JIM YOU CAN DO THIS :))

1. **CONCLUSION:**

* During this project, we practiced what we have learned in class, and also learned to use array, use random function to generate a random number, the Windows libraries to use the arrow keys and to place the cursor at a specific position in the screen, system() functions to handle the screen output as well as how to use class.
* We intended to create another mode, in which the computer is “smarter” by applying Minimax Algorithm in game theory, but we did not have enough time to do research and include this part in the program.
* We used object-oriented programming in this project, but it was not the most effective, as the program is highly dependent on the arrow keys and we was not successful in finding a way to write the code more effectively.
* The program uses system() functions so it does not work on other platforms.
* Besides the difficulties that has been discussed above, there are other things we can improve on, such as we should make a clearer strategy before actually starting to write the code.

1. **APPENDIX:**

(place the code)