**Project Title:**

Tic-Tac-Toe Game in C++

**Overview of the Project:**

This project is a simple console-based Tic-Tac-Toe game for two players, implemented in C++. The game allows two players to take turns marking spots on a 3x3 grid, aiming to place three marks in a row horizontally, vertically, or diagonally.

**Tools Used in This Code Writing:**

The project is developed using the C++ programming language, utilizing basic input/output functionalities, control structures, and arrays to manage the game's grid. A simple text-based user interface is provided using the standard C++ console.

**Coding Fundamentals Used:**

* Arrays (for the game board)
* Control structures (if-else, switch statements)
* Functions (to structure the game logic)
* Loops (for continuously running the game until a player wins or the game draws)
* User input (for choosing the position on the board)

**Key Features of This Code:**

* Two-player mode (Player 1 uses "X" and Player 2 uses "O")
* Real-time grid updates based on player input
* Simple user interface with a text-based board
* Clear winner announcement or draw detection
* Structured functions for better code organization (board display, player turn, etc.)

**Learning Outcomes:**

* Gained experience in designing a basic game using C++
* Learned how to use arrays to represent a game board
* Practiced handling user inputs and updating the game state dynamically
* Improved knowledge of control structures and function-based design

**Conclusion:**

This project provided a hands-on opportunity to implement a simple but functional game in C++. It allowed me to strengthen my understanding of fundamental programming concepts while creating an interactive program. The game logic and structure can be expanded for further improvements or additional features.