

The game of Tic-tac-toe is a simple game, where the best move for both players will always end the game in a draw. Despite the simplicity of the game, to list all possible board combinations and moves requires more detailed analysis.

### **Part 1**

For this challenge you are to create a simple Tic-tac-toe game with the following guidelines:

1. The game must enforce all of the standard 3x3 Tic-tac-toe game rules
2. You must include some type of indication of whose turn it is
3. The program should display a message indicating which player has won, or if the game has ended in a draw
4. At the end of a game, the players should be able to choose to either play again, or quit
5. The program should be able to handle any errors gracefully

### **Part 2**

Extend your program to implement a simple AI system which will choose a cell at random with the following guide lines:

1. The user should be able to select either X or O (or both!) to use the AI logic
2. The user should be able to enable or disable either player's AI at any time during the game
3. The AI must follow all rules for the game

### **Bonus**

Since the optimal move for both X and O will result in a draw, you should be able to extend your AI logic to be able to play a *perfect game*. This means that a human player cannot beat your AI logic (assuming it starts from the beginning and plays the whole game). This also means that if both players are using your AI logic, *every game* should result in a draw.