

Software Engineering

Tic tac toe Game

User Documentation

About

Tic-tac-toe or **Xs and Os** is a paper and pencil game for two players who take turns marking the spaces in a three-by-three grid with *X* or *O*. The player who succeeds in placing three of their marks in a horizontal, vertical, or diagonal row is the winner. It is a solved, with a forced draw assuming best play from both players.

Core Concept

Tic-tac-toe is played on a three-by-three grid by two players, who alternately place the marks *X* and *O* in one of the nine spaces in the grid.

In the following example, the first player (*X*) wins the game in seven steps:



There is no universally-agreed rule as to who plays first, but in our game the convention that *X* plays first is used.

Players soon discover that the best play from both parties leads to a draw. Hence, it is often played by young children who may not have discovered the optimal strategy.

From : [Wikipedia](#)

Overview

Our game consist of a 3*3 grid, with the option for Player 1 to mark an “X” wherever they desire, and an option for Player 2 to mark an “O” wherever they desire (except the position where Player 1 has already marked an “X”).

How to play

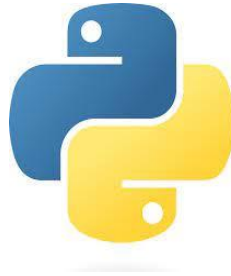
1. Open the Tic_tac-Toe Application File.
2. Player 1 and Player 2 write their name in text box provided in the game
3. Player 1 can place “X” on any box, following him Player 2 can mark “O” on any box that is not marked already
4. If any Player tries to click on the already filled box then an error message will be displayed.
5. Game End Condition :
The game ends when one of the following happens:
 - a. Player 1 wins when there is a row/column/diagonal of “X” symbols.
 - b. Player 2 wins when there is a row/column/diagonal of “O” symbols.
 - c. The game is drawn if all 9 cells of the grid are filled and neither of 1 or 2 happens.
6. If any Player satisfies the winning condition then a winning message will be displayed.
7. If none of the Players wins then a “Game Draw” message will be displayed.
8. If Players want to play again then they can click on the “Play Again” button.

GUI of Game



Language used

Python



Tools used

1) Tkinter library

Tkinter widgets used:

- Buttons
- Message box
- Entry
- Labels
- Grid

2) Visual Studio Code as a editor

Game Developers

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