

Tic-Tac-Toe Game

Abstract:

Tic-tac-toe is a two-player game that is a lot of fun. Two vertical and two horizontal lines are used to create a 3x3 square grid before the game begins. The winner is the player who is able to line up three of their markers in a horizontal, vertical, or diagonal row. We create a computer software that allows players to compete against artificial intelligence heuristics to win the game. The technique allows for a remarkable performance in the tic-tac-toe game's creation.

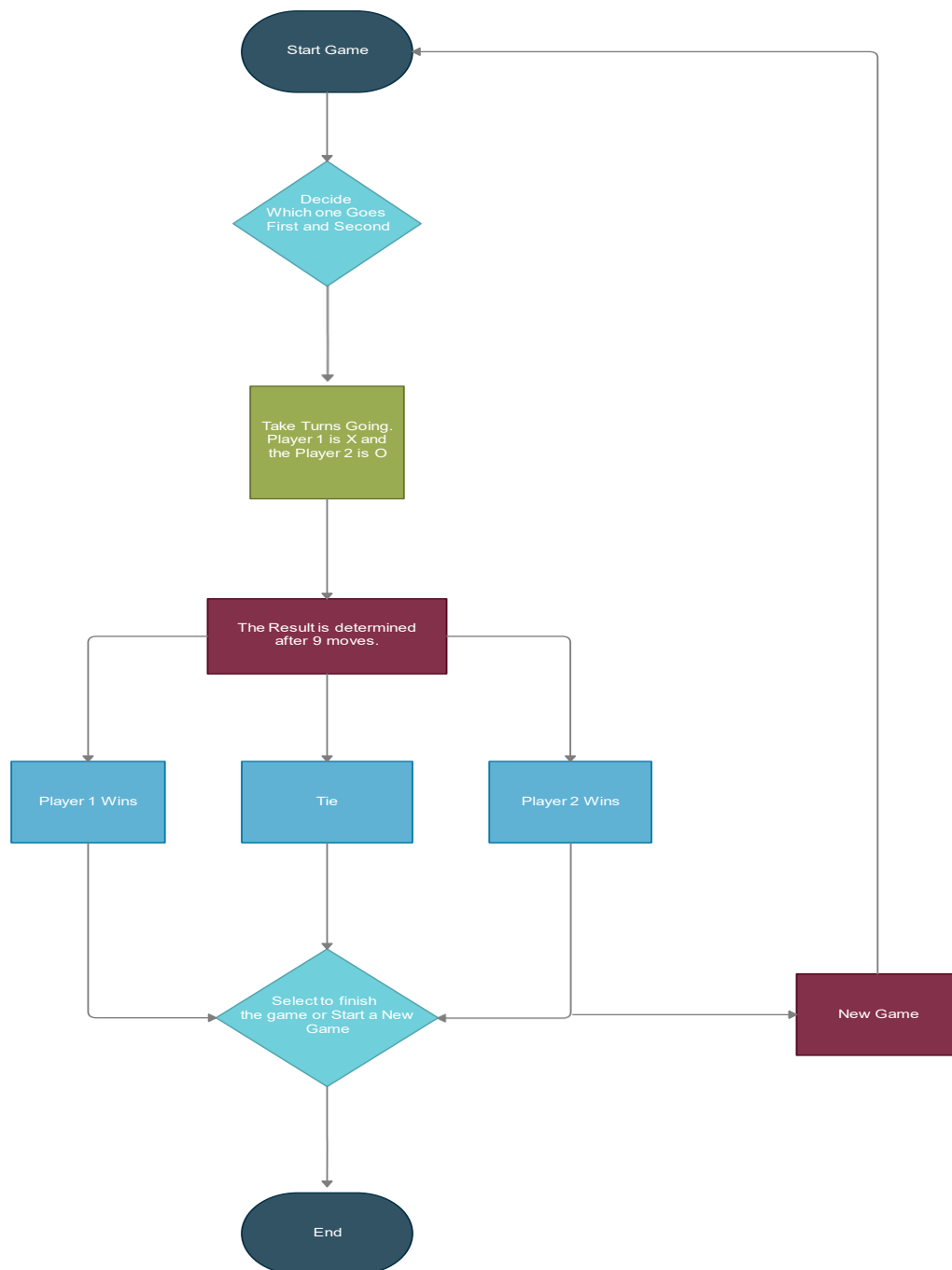
Introduction:

Tic-tac-toe is a basic two-player game that always ends in a tie if both players play well. Noughts and crosses, or Xs and Os, are other names for the game. Tic-tac-toe is a board game that may be played on a computer or through a number of mediums. The aim of tic-tac-toe is to obtain three in a row on a 3-by-3 grid or four in a row on a 4-by-4 grid before the other players. To begin, one player creates a grid of 3-by-3 or 4-by-4 squares on a board. The player who is playing "X" goes first in a 3-by-3 grid game. Players alternate placing Xs and Os on the board until one of them has three in a row, horizontally, vertically, or diagonally, or until all of the grid's squares are filled. A player wins if he or she can draw three consecutive Xs or Os. The game is a draw if all squares are filled and neither player has created a complete row of Xs or Os. Making a "fork," or setting your mark in such a manner that you may win two ways on your next turn, is one of the strongest techniques in the game. Because your opponent can only block one, you can win the game after that. If you're playing on a 4-by-4 grid, the rules are the same. The "X" player is the first to play. Players alternate placing Xs and Os on the board until a row is finished horizontally, vertically, or diagonally, or until all 16 squares have been filled.

The game is a tie if all 16 squares are filled and neither player has four in a row.

Result: Every game will end in a tie unless one of the players commits a blunder. The board game Connect Four has been solved: regardless of what the other player does, the first player will always win if they make the proper moves.

Proposed flowchart:



Result:

Input

```
Enter the Player Name1:Tamil
Enter the Player Name2:Kumaran

Lets Start The game.....
For Tamil: O
For Kumaran: X
  |  |  |
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  |  |  |
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  |  |  |
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Chance For Kumaran.....
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Output:

```
Chance For Kumaran.....
Enter the row position and column position of the board:2
2
| | |
-----
|x | |
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| | |
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Chance For Tamil.....
Enter the row position and column position of the board:1
2
|o | |
-----
|x | |
-----
| | |
-----

Chance For Kumaran.....
Enter the row position and column position of the board:1
1
X |o | |
-----
|x | |
-----
| | |
-----

Chance For Tamil.....
Enter the row position and column position of the board:1
3
X |o |o |
-----
|x | |
-----
| | |
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```

```
Chance For Kumaran.....
Enter the row position and column position of the board:3
3
X |o |o |
-----
|x | |
-----
| |x |
-----
Kumaran is win
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Process exited after 47.14 seconds with return value 0
Press any key to continue . . .
```