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# Tic Tac Toe using Tkinter

PYTHON MINI PROJECT

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# Problem Statement

To Create a Tic Tac Toe Game using the Tkinter module in Python for GUI. To save score of the user every time he/she wins the game. To notify the players when He/she wins the game and to show Draw when no winner is found after 9 moves and take the player to main screen to check the Scoreboard or Play again or Exit.

# Abstract

Tic-tac-toe is originally a pen-and-paper game, relying on the players' intellectual strength and cunning strategy. Generating a game of tic-tac-toe using Python language helps us play around with probabilities, which is one of the pillars for Artificial Intelligence and Machine Learning domains. We have used the Tkinter package in our project, which is the standard Python interface to the Tk GUI toolkit. The project is executed on Visual Studio, using the Tkinter module.

Our project can be advanced in the future by including some sort of gaming interface. It can also be played against the computer in the future.

# Introduction

The “Tic Tac Toe game using Tkinter” is a module-based program, in which different types of modules are used in order to create a smooth functioning of the game. The Code consists of 6 modules named `tic_tac_toe` which is the main module where the code starts to execute itself and other modules named `key_press`, `score_file`, `draw_grid`, `chance`, `win_con` are used in order to keep track of the moves, count the score and declare a winner respectively.

The Tkinter is used to create the frame of the main page, scoreboard and playing frame and respective buttons have been added for smooth flow of the game.

# Description of Modules

## Draw\_grid

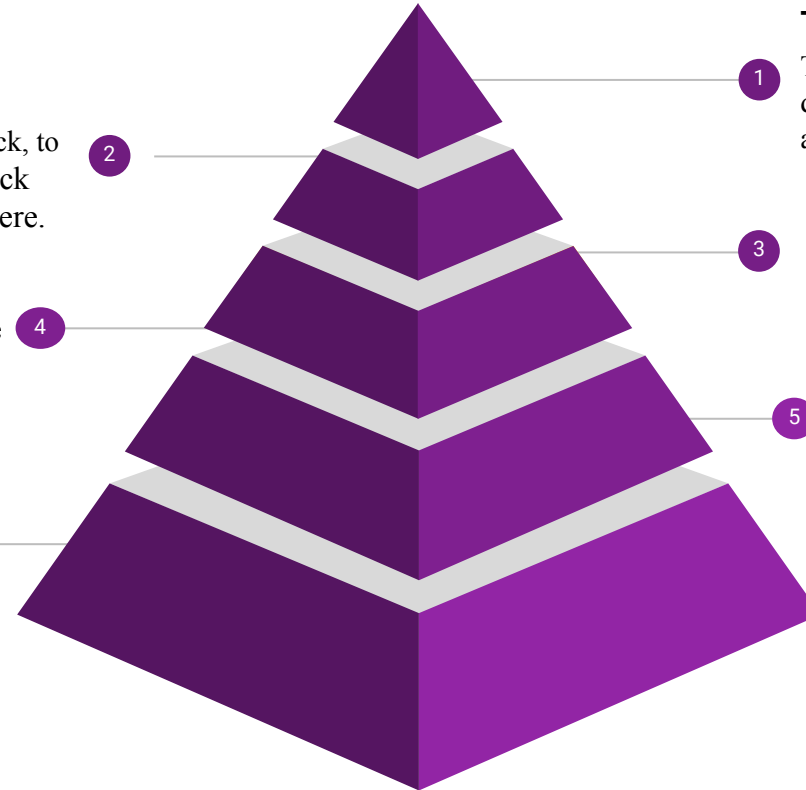
9 variables are declared, one for every block, to set the Button Value according to User Click and the entire player frame is created here.

## Chance

It provides the value of X and O to the grid, and keeps track of Player's Move

## Score\_File

Score is saved in a .txt file from win\_con and then displayed in scoreboard.



## Tic\_Tac\_Toe

The main module in which main\_body() is defined consists of the Tkinter window, title, and dimensions

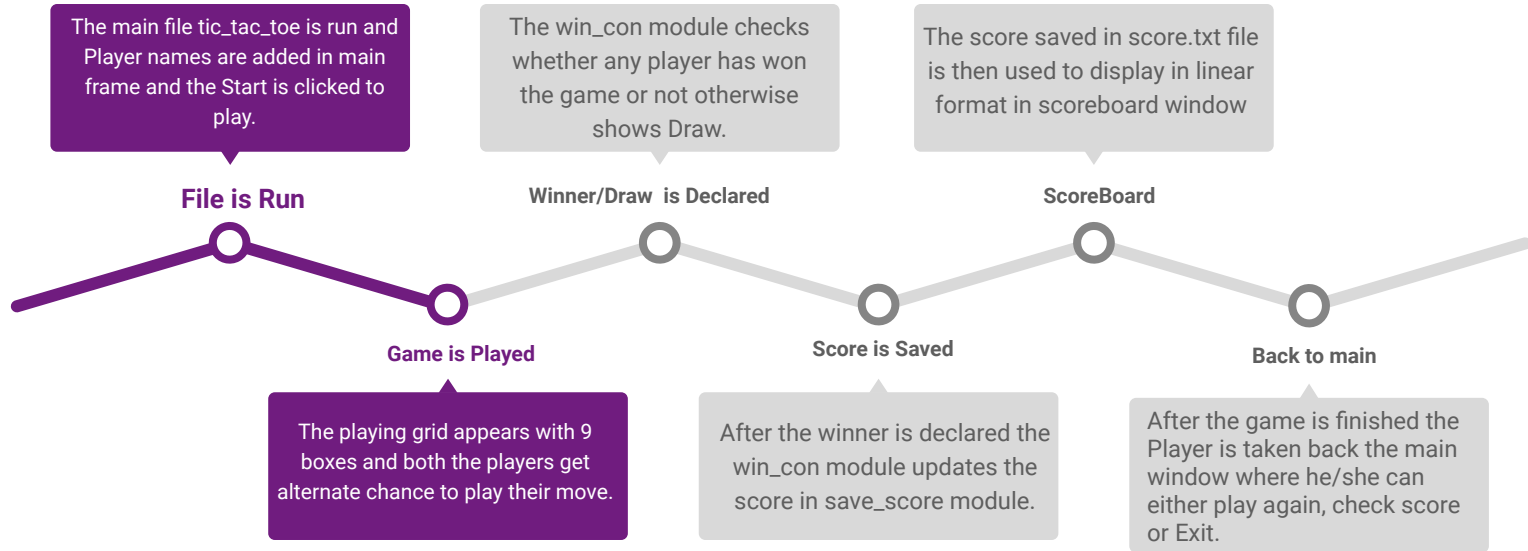
## Key\_Press

The limit\_keypress function in the key\_press module helps in avoiding manipulation of the move.

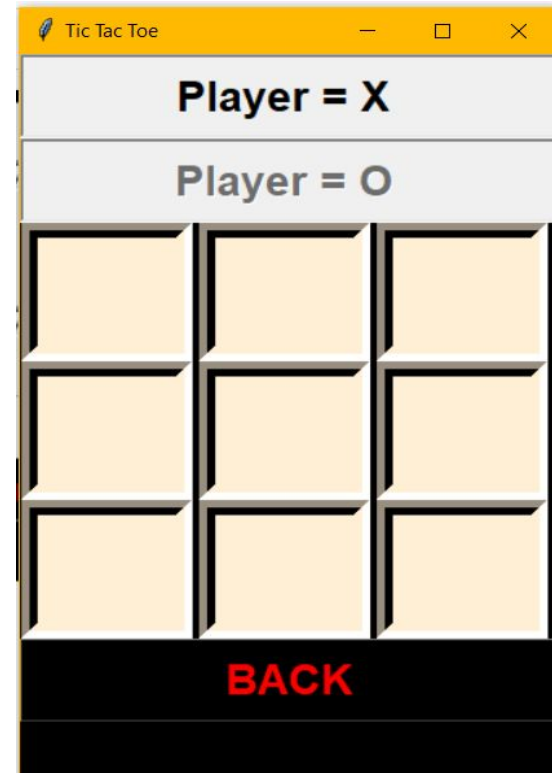
## Win\_Con

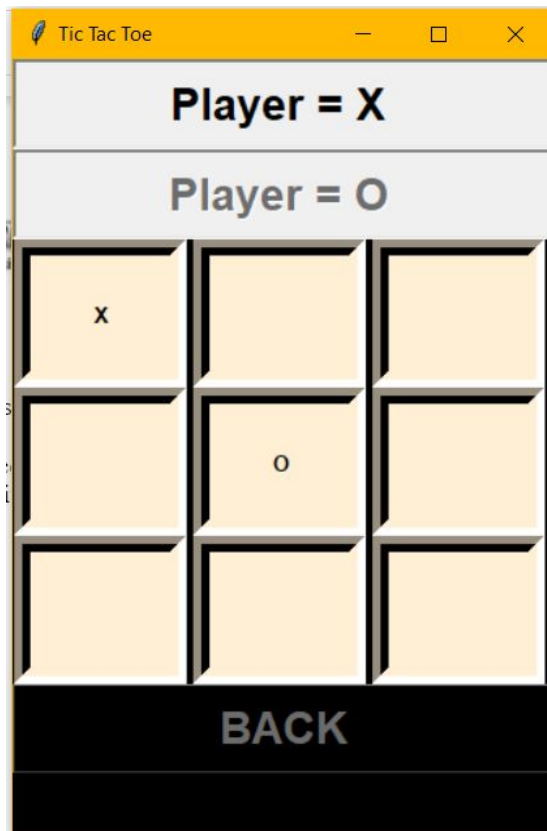
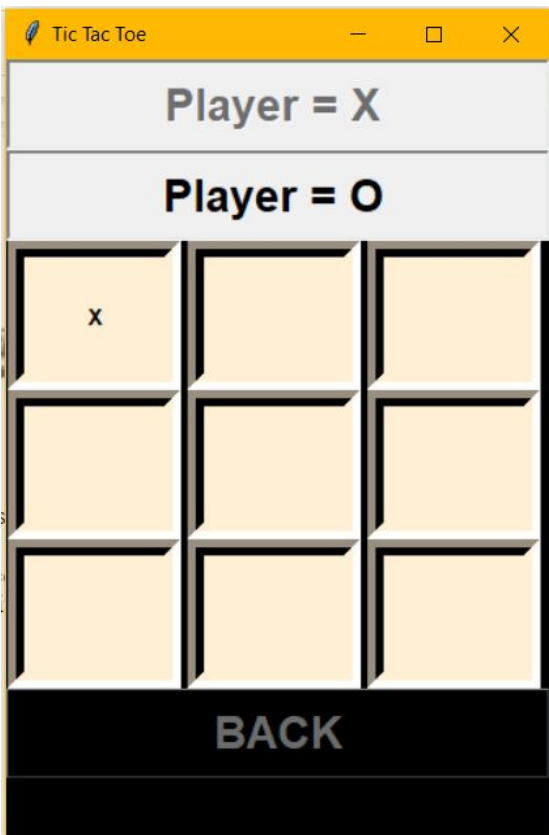
Checks for the winners condition and draw condition and provides final score.

# Implementation Steps

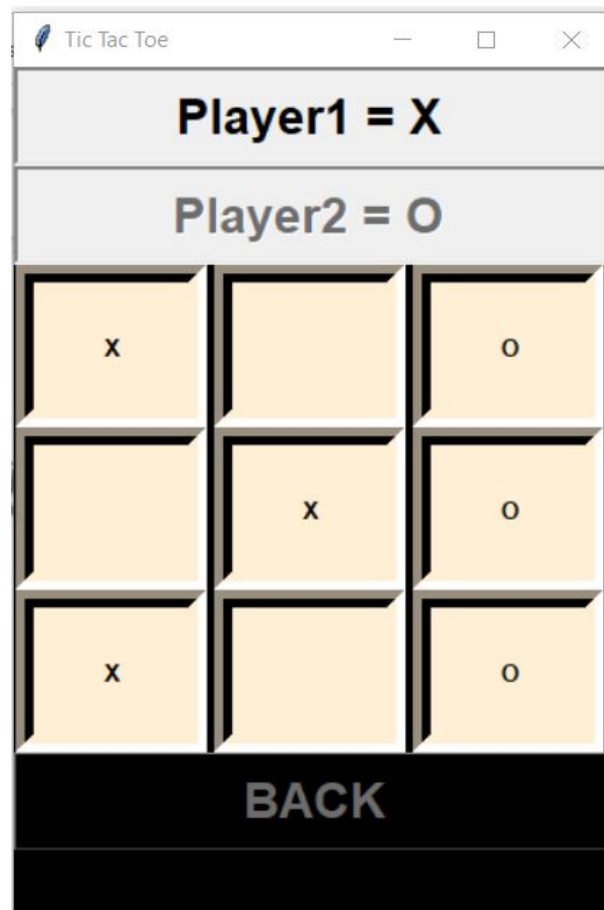
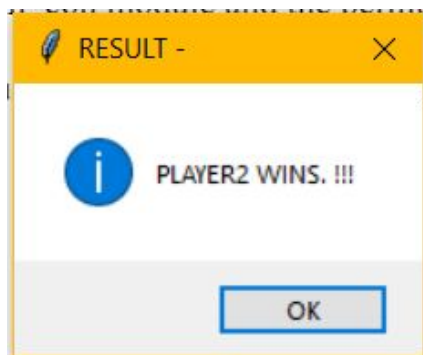
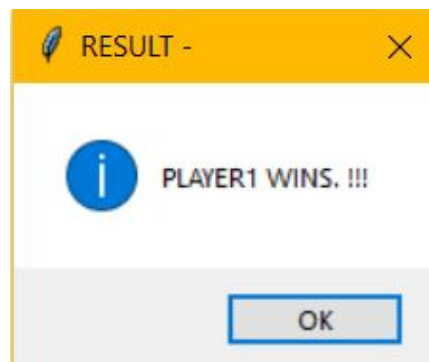
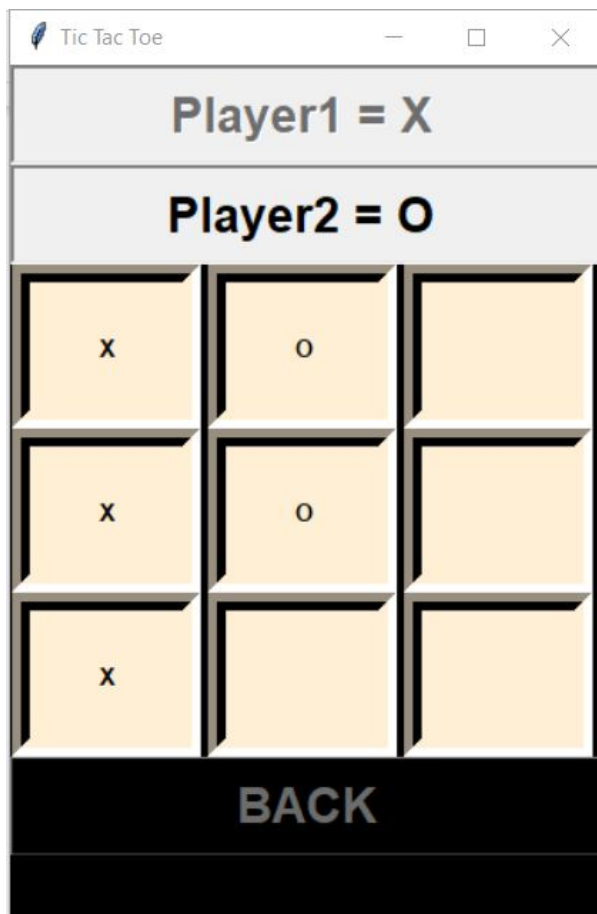


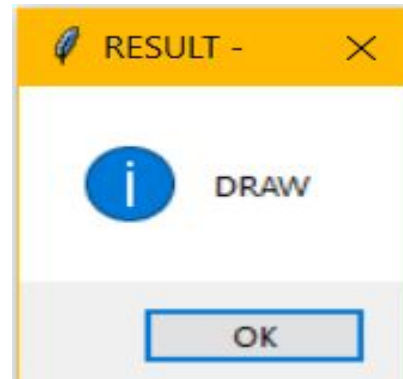
# Output











Tic Tac Toe

**TIC TAC TOE**

Player 1

Player 2

**START**

**ScoreBoard**

**EXIT**

ScoreBoard

**PLAYER NAME | SCORE**

**PLAYER1 : 20**

**PLAYER2 : 15**

**BACK**

Tic Tac Toe

**TIC TAC TOE**

Player 1

Player 2

**START**

**ScoreBoard**

**EXIT**

# Future Scope

With respect to this game our future scope would include :

1. User v/s Computer mode.
2. A timer for every move.

Thank  
You