

# PYTHON FOR PROGRAMMING

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## **AIM:**

**To create a code for running a program using TKinter.**

```
import tkinter as tk
```

```
# Simple 2-player Tic Tac Toe (short version)
```

```
def on_click(i):
```

```
    global current, board
```

```
    if board[i] == "":
```

```
        board[i] = current
```

```
        buttons[i].config(text=current)
```

```
    if check_win():
```

```
        status.config(text=f"Player {current} wins!")
```

```
        disable_all()
```

```
    elif all(board):
```

```
        status.config(text="Draw!")
```

```
    else:
```

```
        current = "O" if current == "X" else "X"
```

```
        status.config(text=f"Player {current}'s turn")
```

```
def check_win():  
    wins = [(0,1,2),(3,4,5),(6,7,8),(0,3,6),(1,4,7),(2,5,8),(0,4,8),(2,4,6)]  
    return any(board[a] == board[b] == board[c] != "" for a,b,c in wins)
```

```
def disable_all():  
    for b in buttons:  
        b.config(state="disabled")
```

```
def reset():  
    global board, current  
    board = [""] * 9  
    current = "X"  
    status.config(text="Player X's turn")  
    for b in buttons:  
        b.config(text="", state="normal")
```

```
root = tk.Tk()  
root.title("Tic Tac Toe - Simple")
```

```
current = "X"  
board = [""] * 9
```

```
status = tk.Label(root, text="Player X's turn", font=(None, 14))
status.pack(pady=5)
```

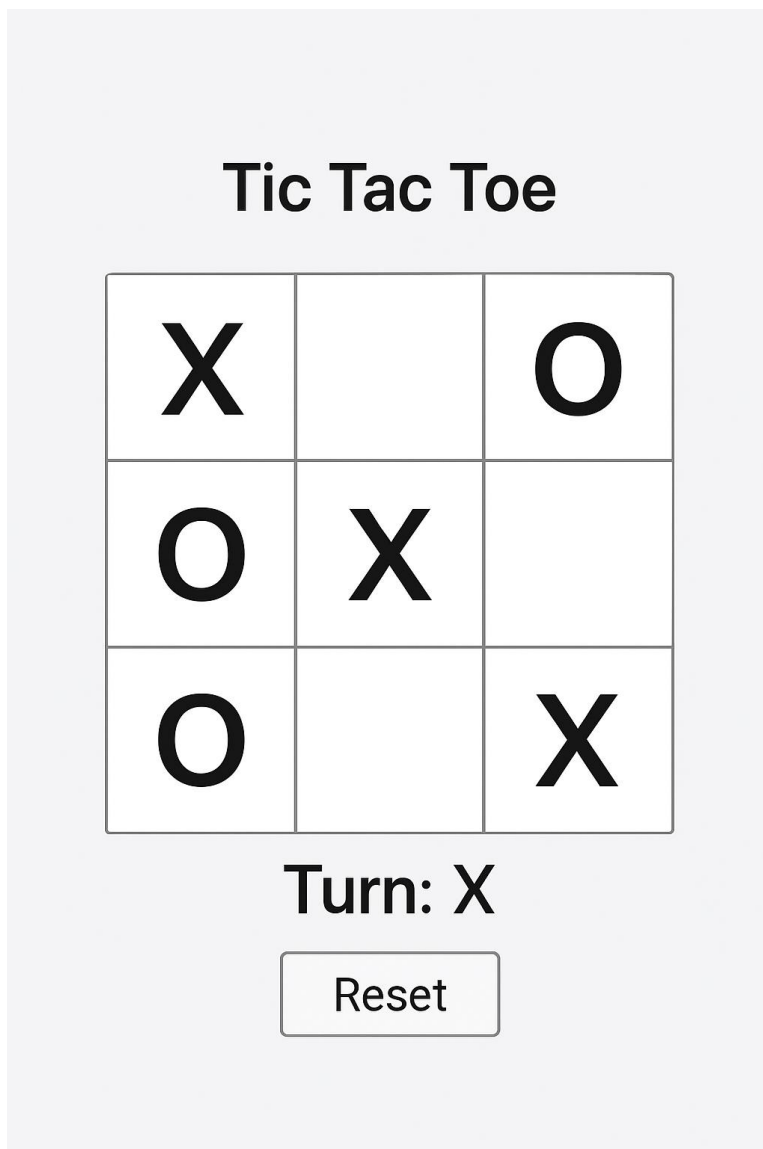
```
frame = tk.Frame(root)
frame.pack()
```

```
buttons = []
for i in range(9):
    b = tk.Button(frame, text="", font=(None, 22), width=4, height=2,
                  command=lambda i=i: on_click(i))
    b.grid(row=i//3, column=i%3)
    buttons.append(b)
```

```
reset_btn = tk.Button(root, text="Reset", command=reset)
reset_btn.pack(pady=5)
```

```
root.mainloop()
```

**OUTPUT:**



**RESULT:**

**Program using TKinter is printed successfully.**