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**Semester : BS SE 5<sup>th</sup>**

**Subject :Data Science**

**Assignment: Tic Tac Game in python**

```
import tkinter.messagebox
```

```
from tkinter import*
```

```
root =Tk()
```

```
root.geometry=("1350*750+0+0")
```

```
root.title("Tik Tac Toe")
```

```
root.configure(background='black')
```

```
Tops =Frame(root,bg='black',pady=2,width=1350,height=100,relief= RIDGE)
```

```
Tops.grid(row=0, column=0)
```

```
lblTitle=Label(Tops,font=('arial',50,'bold'),text="Tic Tac Toe  
",bd=21,bg='black',fg='cornsilk',justify=CENTER)
```

```
lblTitle.grid(row=0, column=0)
```

```
mainframe =Frame(root,bg='black',pady=2,width=1350,height=600,relief= RIDGE)
```

```
mainframe.grid(row=1, column=0)
```

```
LeftFrame=Frame(mainframe ,bd=10,width=750,height=500,pady=2,padx=10,bg='purple',relief= RIDGE)
```

```
LeftFrame.pack(side=LEFT)
```

```
RightFrame=Frame(mainframe ,bd=10,width=560,height=500,padx=10,pady=2,bg='purple',relief=  
RIDGE)
```

```
RightFrame.pack(side=RIGHT)
```

```
RightFrame1=Frame(RightFrame ,bd=10,width=560,height=200,padx=10,pady=2,bg='purple',relief=  
RIDGE)
```

```
RightFrame1.grid(row=0, column=0)
```

```
RightFrame2=Frame(RightFrame ,bd=10,width=560,height=200,padx=10,pady=2,bg='purple',relief=  
RIDGE)
```

```
RightFrame2.grid(row=1, column=0)
```

```
playerX=IntVar()
```

```
playerO=IntVar()
```

```
playerX.set(0)
```

```
playerO.set(0)
```

```
buttons=StringVar()
```

```
click=True
```

```
def checker (buttons):
```

```
    global click
```

```
    if buttons["text"]=="X" and click==True:
```

```
        buttons["text"]="X"
```

```
        click=False
```

```
        scorekeeper()
```

```
    elif buttons["text"]=="O" and click==False:
```

```
        buttons["text"]="O"
```

```
        click=True
```

```
        scorekeeper()
```

```
def scorekeeper():
```

```
    if (button1["text"]=="X" and button2["text"]=="X" and button3["text"]=="X"):
```

```
        button1.configure(background="royalblue")
```

```
        button2.configure(background="royalblue")
```

```
button3.configure(background="royalblue")

n=float(playerX.get())

score=(n+1)

playerX.set(score)

tkinter.messagebox.showinfo("winner X", "you have won a game")

if (button4[ "text"]=="X"and button5[ "text"]=="X"and button6[ "text"]=="X"):

    button4.configure(background="royalblue")

    button5.configure(background="royalblue")

    button6.configure(background="royalblue")

    n=float(playerX.get())

    score=(n+1)

    playerX.set(score)

    tkinter.messagebox.showinfo("winner X", "you have won a game")

if (button7[ "text"]=="X"and button8[ "text"]=="X"and button9[ "text"]=="X"):

    button7.configure(background="royalblue")

    button8.configure(background="royalblue")

    button9.configure(background="royalblue")

    n=float(playerX.get())

    score=(n+1)

    playerX.set(score)

    tkinter.messagebox.showinfo("winner X", "you have won a game")

if (button3[ "text"]=="X"and button5[ "text"]=="X"and button7[ "text"]=="X"):
```

```
n=float(playerX.get())
score=(n+1)
playerX.set(score)
tkinter.messagebox.showinfo("winner X", "you have won a game")
if (button1["text"]=="X"and button5["text"]=="X"and button9["text"]=="X"):
    button1.configure(background="royalblue")
    button5.configure(background="royalblue")
    button9.configure(background="royalblue")
n=float(playerX.get())
score=(n+1)
playerX.set(score)
tkinter.messagebox.showinfo("winner X", "you have won a game")
if (button1["text"]=="X"and button4["text"]=="X"and button7["text"]=="X"):
    button1.configure(background="royalblue")
    button4.configure(background="royalblue")
    button7.configure(background="royalblue")
n=float(playerX.get())
score=(n+1)
playerX.set(score)
tkinter.messagebox.showinfo("winner X", "you have won a game")
if (button2["text"]=="X"and button5["text"]=="X"and button8["text"]=="X"):
    button2.configure(background="royalblue")
    button5.configure(background="royalblue")
    button8.configure(background="royalblue")
n=float(playerX.get())
```

```
score=(n+1)
playerX.set(score)
tkinter.messagebox.showinfo("winner X", "you have won a game")
if (button3["text"]=="X"and button6["text"]=="X"and button9["text"]=="X"):
    button3.configure(background="royalblue")
    button6.configure(background="royalblue")
    button9.configure(background="royalblue")
    n=float(playerX.get())
    score=(n+1)
    playerX.set(score)
    tkinter.messagebox.showinfo("winner X", "you have won a game")
```

```
if (button1["text"]=="O"and button2["text"]=="O"and button3["text"]=="O"):
    button1.configure(background="royalblue")
    button2.configure(background="royalblue")
    button3.configure(background="royalblue")
    n=float(playerX.get())
    score=(n+1)
    playerO.set(score)
    tkinter.messagebox.showinfo("winner O", "you have won a game")
if (button4["text"]=="O"and button5["text"]=="O"and button6["text"]=="O"):
```

```
button4.configure(background="royalblue")
button5.configure(background="royalblue")
button6.configure(background="royalblue")
n=float(playerX.get())
score=(n+1)
playerO.set(score)
tkinter.messagebox.showinfo("winner O","you have won a game")
if (button7["text"]=="O"and button8["text"]=="O"and button9["text"]=="O"):
    button7.configure(background="royalblue")
    button8.configure(background="royalblue")
    button9.configure(background="royalblue")
    n=float(playerX.get())
    score=(n+1)
    playerO.set(score)
    tkinter.messagebox.showinfo("winner O","you have won a game")
if (button3["text"]=="O"and button5["text"]=="O"and button7["text"]=="O"):
    button3.configure(background="royalblue")
    button5.configure(background="royalblue")
    button7.configure(background="royalblue")
    n=float(playerX.get())
    score=(n+1)
    playerO.set(score)
    tkinter.messagebox.showinfo("winner O","you have won a game")
if (button1["text"]=="O"and button5["text"]=="O"and button9["text"]=="O"):
    button1.configure(background="royalblue")
```

```
button5.configure(background="royalblue")
button9.configure(background="royalblue")
n=float(playerX.get())
score=(n+1)
playerO.set(score)
tkinter.messagebox.showinfo("winner O", "you have won a game")
if (button1["text"]=="O"and button4["text"]=="O"and button7["text"]=="O"):
    button1.configure(background="royalblue")
    button4.configure(background="royalblue")
    button7.configure(background="royalblue")
    n=float(playerX.get())
    score=(n+1)
    playerO.set(score)
    tkinter.messagebox.showinfo("winner O", "you have won a game")
if (button2["text"]=="O"and button5["text"]=="O"and button8["text"]=="O"):
    button2.configure(background="powderblue")
    button5.configure(background="royalblue")
    button8.configure(background="royalblue")
    n=float(playerX.get())
    score=(n+1)
    playerO.set(score)
    tkinter.messagebox.showinfo("winner O", "you have won a game")
if (button3["text"]=="O"and button6["text"]=="O"and button9["text"]=="O"):
    button3.configure(background="royalblue")
    button6.configure(background="royalblue")
```



```
button9.configure(background="royalblue")  
  
n=float(playerX.get())  
  
score=(n+1)  
  
playerO.set(score)  
  
tkinter.messagebox.showinfo("winner O", "you have won a game")
```

```
def Reset():
```

```
    button1['text']=" "  
    button2['text']=" "  
    button3['text']=" "  
    button4['text']=" "  
    button5['text']=" "  
    button6['text']=" "  
    button7['text']=" "  
    button8['text']=" "  
    button9['text']=" "
```

```
    button1.configure(background="gainsboro")  
    button2.configure(background="gainsboro")  
    button3.configure(background="gainsboro")  
    button4.configure(background="gainsboro")  
    button5.configure(background="gainsboro")  
    button6.configure(background="gainsboro")
```

```
button7.configure(background="gainsboro")
```

```
button8.configure(background="gainsboro")
```

```
button9.configure(background="gainsboro")
```

```
def NewGame():
```

```
    Reset()
```

```
    playerX.set(0)
```

```
    playerO.set(0)
```

```
lblplayerX=Label(RightFrame1,font=('arial',40,'bold'),text="palyer X :",padx=2,pady=2,bg="pink")
```

```
lblplayerX.grid(row=0, column=0,sticky=W)
```

```
txtPlayerX=Entry(RightFrame1,font=('arial',40,'bold'),bd=2,fg="black",textvariable=playerX,width=14,  
                justify=LEFT).grid(row=0, column=1)
```

```
lblplayerO=Label(RightFrame1,font=('arial',40,'bold'),text="palyer O :",padx=2,pady=2,bg="pink")
```

```
lblplayerO.grid(row=1, column=0,sticky=W)
```

```
txtPlayerO=Entry(RightFrame1,font=('arial',40,'bold'),bd=2,fg="black",textvariable=playerO,width=14,  
                justify=LEFT).grid(row=1, column=1)
```

```
btnReset = Button(RightFrame2, text="Reset ",font=('Times 26 bold'), height=3, width=15,  
bg='gainsboro',command=Reset)
```

```
btnReset.grid(row=0, column=0,sticky =N+S+E+W)
```

```
btnNewGame = Button(RightFrame2, text="NewGame ",font=('Times 26 bold'), height=3, width=15,  
bg='gainsboro',command=NewGame)
```

```
btnNewGame.grid(row=1, column=0,sticky =N+S+E+W)
```

```
button1 = Button(LeftFrame, text=" ",font=('Times 26 bold'), height=3, width=8,  
bg='gainsboro',command=lambda:checker(button1))
```

```
button1.grid(row=1, column=0,sticky =N+S+E+W)
```

```
button2 = Button(LeftFrame, text=" ",font=('Times 26 bold'), height=3, width=8,  
bg='gainsboro',command=lambda:checker(button2))
```

```
button2.grid(row=1, column=1,sticky =N+S+E+W)
```

```
button3 = Button(LeftFrame, text=" ",font=('Times 26 bold'), height=3, width=8,  
bg='gainsboro',command=lambda:checker(button3))
```

```
button3.grid(row=1, column=2,sticky =N+S+E+W)
```

```
button4 = Button(LeftFrame, text=" ",font=('Times 26 bold'), height=3, width=8,  
bg='gainsboro',command=lambda:checker(button4))
```

```
button4.grid(row=2, column=0,sticky =N+S+E+W)
```

```
button5 = Button(LeftFrame, text=" ",font=('Times 26 bold'), height=3, width=8,  
bg='gainsboro',command=lambda:checker(button5))
```

```
button5.grid(row=2, column=1,sticky =N+S+E+W)
```

```
button6 = Button(LeftFrame, text=" ",font=('Times 26 bold'), height=3, width=8,  
bg='gainsboro',command=lambda:checker(button6))
```

```
button6.grid(row=2, column=2,sticky =N+S+E+W)
```

```
button7 = Button(LeftFrame, text=" ",font=('Times 26 bold'), height=3, width=8,  
bg='gainsboro',command=lambda:checker(button7))
```

```
button7.grid(row=3, column=0,sticky =N+S+E+W)
```

```
button8 = Button(LeftFrame, text=" ",font=('Times 26 bold'), height=3, width=8,  
bg='gainsboro',command=lambda:checker(button8))
```

```
button8.grid(row=3, column=1,sticky =N+S+E+W)
```

```
button9 = Button(LeftFrame, text=" ",font=('Times 26 bold'), height=3, width=8,  
bg='gainsboro',command=lambda:checker(button9))
```

```
button9.grid(row=3, column=2,sticky =N+S+E+W)
```

```
root.mainloop()
```

# OUTPUT

The screenshot shows a window titled "Tic Tac Toe". The main area contains a 3x3 grid and a score panel. The grid is as follows:

X	X	X
	O	O
	O	X

The score panel on the right shows:

- Player X : 1.0
- Player O : 0

Below the score panel are two buttons: "Reset" and "NewGame".