from tkinter import \*

from tkinter import messagebox

import random as r

def button(frame): #Function to define a button

b=Button(frame,padx=1,bg="papaya whip",width=3,text=" ",font=('arial',60,'bold'),relief="sunken",bd=10)

return b

def change\_a(): #Function to change the operand for the next player

global a

for i in ['O','X']:

if not(i==a):

a=i

break

def reset(): #Resets the game

global a

for i in range(3):

for j in range(3):

b[i][j]["text"]=" "

b[i][j]["state"]=NORMAL

a=r.choice(['O','X'])

def check(): #Checks for victory or Draw

for i in range(3):

if(b[i][0]["text"]==b[i][1]["text"]==b[i][2]["text"]==a or b[0][i]["text"]==b[1][i]["text"]==b[2][i]["text"]==a):

messagebox.showinfo("Congrats!!","'"+a+"' has won")

reset()

if(b[0][0]["text"]==b[1][1]["text"]==b[2][2]["text"]==a or b[0][2]["text"]==b[1][1]["text"]==b[2][0]["text"]==a):

messagebox.showinfo("Congrats!!","'"+a+"' has won")

reset()

elif(b[0][0]["state"]==b[0][1]["state"]==b[0][2]["state"]==b[1][0]["state"]==b[1][1]["state"]==b[1][2]["state"]==b[2][0]["state"]==b[2][1]["state"]==b[2][2]["state"]==DISABLED):

messagebox.showinfo("Tied!!","The match ended in a draw")

reset()

def click(row,col):

b[row][col].config(text=a,state=DISABLED,disabledforeground=colour[a])

check()

change\_a()

label.config(text=a+"'s Chance")

############### Main Program #################

root=Tk() #Window defined

root.title("Tic-Tac-Toe") #Title given

a=r.choice(['O','X']) #Two operators defined

colour={'O':"deep sky blue",'X':"lawn green"}

b=[[],[],[]]

for i in range(3):

for j in range(3):

b[i].append(button(root))

b[i][j].config(command= lambda row=i,col=j:click(row,col))

b[i][j].grid(row=i,column=j)

label=Label(text=a+"'s Chance",font=('arial',20,'bold'))

label.grid(row=3,column=0,columnspan=3)

root.mainloop()