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from tkinter import*

 import random

 import time
import datetime

root=Tk()
root.geometry("1600x8000") root.title("Restaurant Management System")

text_Input = StringVar() operator = ""

Tops=Frame(root, width=1600,relief=SUNKEN) Tops.pack(side=TOP)

f1=Frame(root,width=800,height=700,relief=SUNKEN) f1.pack(side=LEFT)

f2 = Frame(root,width=300, height=700,bg="powder blue", relief=SUNKEN)
f2.pack(side=RIGHT)

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# CALCULATOR

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def btnclick(numbers):
global operator
operator =operator + str(numbers) text_Input.set(operator)

def btnClearDisplay(): global operator operator = "" text_Input.set("")

def btnEqualsInput():
global operator
sumup= str(eval(operator)) text_Input.set(sumup) operator = ""

txtDisplay = Entry(f2,font=('arail', 20, 'bold'), textvariable=text_Input, bd=30, insertwidth=4,
bg="powder blue", justify='right')

txtDisplay.grid(columnspan=4)

btn7=Button(f2,padx=16,pady=16, fg="black", font=('arail',20,'bold'),text="7", bg="powder
blue", command=lambda: btnclick(7))

btn7.grid(row=2,column=0)

btn8=Button(f2,padx=16,pady=16, fg="black", font=('arail',20,'bold'),text="8", bg="powder
blue", command=lambda: btnclick(8))
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btn8.grid(row=2,column=1)

btn9=Button(f2,padx=16,pady=16, fg="black", font=('arail',20,'bold'),text="9", bg="powder
blue", command=lambda: btnclick(9))

btn9.grid(row=2,column=2)

Addition=Button(f2,padx=16,pady=16, fg="black", font=('arail',20,'bold'),text="+",
bg="powder blue", command=lambda: btnclick("+"))

Addition.grid(row=2,column=3)

btn4=Button(f2,padx=16,pady=16, fg="black", font=('arail',20,'bold'),text="4", bg="powder
blue", command=lambda: btnclick(4))

btn4.grid(row=3,column=0)

btn5=Button(f2,padx=16,pady=16, fg="black", font=('arail',20,'bold'),text="5", bg="powder
blue", command=lambda: btnclick(5))

btn5.grid(row=3,column=1)

btn6=Button(f2,padx=16,pady=16, fg="black", font=('arail',20,'bold'),text="6", bg="powder
blue", command=lambda: btnclick(6))

btn6.grid(row=3,column=2)

Subtraction=Button(f2,padx=16,pady=16, fg="black", font=('arail',20,'bold'),text="-",
bg="powder blue", command=lambda: btnclick("-"))

Subtraction.grid(row=3,column=3)

btn1=Button(f2,padx=16,pady=16, fg="black", font=('arail',20,'bold'),text="1", bg="powder
blue", command=lambda: btnclick(1))

btn1.grid(row=4,column=0)

btn2=Button(f2,padx=16,pady=16, fg="black", font=('arail',20,'bold'),text="2", bg="powder
blue", command=lambda: btnclick(2))

btn2.grid(row=4,column=1)

btn3=Button(f2,padx=16,pady=16, fg="black", font=('arail',20,'bold'),text="3", bg="powder
blue", command=lambda: btnclick(3))

btn3.grid(row=4,column=2)

Multiply=Button(f2,padx=16,pady=16, fg="black", font=('arail',20,'bold'),text="*",
bg="powder blue", command=lambda: btnclick("*"))
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Multiply.grid(row=4,column=3)

btn0=Button(f2,padx=16,pady=16, fg="black", font=('arail',20,'bold'),text="0", bg="powder
blue", command=lambda: btnclick(0))

btn0.grid(row=5,column=0)

btnClear=Button(f2,padx=16,pady=16, fg="black", font=('arail',20,'bold'),text="C",
bg="powder blue", command=btnClearDisplay)

btnClear.grid(row=5,column=1)

btnEquals=Button(f2,padx=16,pady=16, fg="black", font=('arail',20,'bold'),text="=",
bg="powder blue", command=btnEqualsInput)

btnEquals.grid(row=5,column=2)

Division=Button(f2,padx=16,pady=16, fg="black", font=('arail',20,'bold'),text="/",
bg="powder blue", command=lambda: btnclick("/"))

Division.grid(row=5,column=3)

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# TIME AND HEADING NAME

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localtime=time.asctime(time.localtime(time.time()))

lblInfo=Label(Tops,font=('arial',50,'bold'),text="SAI RESTAURANT ",fg="Steel
Blue",bd=10,anchor='w')

lblInfo.grid(row=0,column=0)

lblInfo=Label(Tops,font=('arial',20,'bold'),text=localtime,fg="Steel Blue",bd=10,anchor='w')
lblInfo.grid(row=1,column=0)

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# PROGRAM

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def Ref(): x=random.randint(10908,500876) randomRef=str(x) rand.set(randomRef)
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if (Idly.get()==""): CoIdly=0

else: CoIdly=float(Idly.get())

if (Dosa.get()==""): CoDosa=0

else: CoDosa=float(Dosa.get())

if (IceCream.get()==""): CoIceCream=0

else: CoIceCream=float(IceCream.get())

if (Pulav.get()==""): CoPulav=0

else: CoPulav=float(Pulav.get())

if (Tea.get()==""): CoTea=0

else: CoTea=float(Tea.get())

if (Drinks.get()==""): CoD=0

else: CoD=float(Drinks.get())

CostofIdly = CoIdly * 25 CostofDrinks= CoD * 20 CostofDosa = CoDosa* 25
CostofIceCream = CoIceCream * 30 CostPulav = CoPulav* 50

CostTea = CoTea * 5

Central_GST=
(((CostofIdly+CostofDrinks+CostofDosa+CostofIceCream+CostPulav+CostTea)* 2.5)/100)

State_GST
=(((CostofIdly+CostofDrinks+CostofDosa+CostofIceCream+CostPulav+CostTea)* 2.5)/100)

Total_cost = (CostofIdly+CostofDrinks+CostofDosa+CostofIceCream+CostPulav+CostTea)

CostofMeal= "Rs", str('%.2f' %
(CostofIdly+CostofDrinks+CostofDosa+CostofIceCream+CostPulav+CostTea))

C_gst = "Rs", str ('%.2f' % Central_GST)
S_gst = "Rs", str ('%.2f' % State_GST)
OverAllCost ="Rs", str ('%.2f' % (Total_cost+Central_GST+State_GST))

Sgst.set(S_gst) Cost.set(CostofMeal) Cgst.set(C_gst) Total.set(OverAllCost)

def qExit(): root.destroy()

def Reset(): Tea.set("") Idly.set("") Dosa.set("")
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IceCream.set("") Pulav.set("") Drinks.set("")

rand.set("")

Total.set("") Sgst.set("") Cgst.set("") Cost.set("")

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# RESTAURANT MENU

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Tea=StringVar() Idly=StringV ar() Dosa=StringVar() IceCream=StringVar()
Pulav=StringVar() Drinks=StringVar() rand = StringVar() Cost=StringVar()
Sgst=StringVar() Cgst=StringVar() Total=StringVar()

lblTea= Label(f1, font=('arial', 16, 'bold'),text="Tea",bd=16,anchor="w") lblTea.grid(row=0,
column=0)

lblTea=Entry(f1,
font=('arial',16,'bold'),textvariable=Tea,bd=10,insertwidth=4,bg="white",justify='right')

lblTea.grid(row=0,column=1)

lblDrinks= Label(f1, font=('arial', 16, 'bold'),text="Drinks",bd=16,anchor="w")
lblDrinks.grid(row=1, column=0)

txtDrinks=Entry(f1,
font=('arial',16,'bold'),textvariable=Drinks,bd=10,insertwidth=4,bg="white",justify='right')

txtDrinks.grid(row=1,column=1)

lblIceCream= Label(f1, font=('arial', 16, 'bold'),text="Ice-Cream",bd=16,anchor="w")
lblIceCream.grid(row=2, column=0)

lblIceCream=Entry(f1,
font=('arial',16,'bold'),textvariable=IceCream,bd=10,insertwidth=4,bg="white",justify='right')

lblIceCream.grid(row=2,column=1)

lblIdly= Label(f1, font=('arial', 16, 'bold'),text="Idly",bd=16,anchor="w") lblIdly.grid(row=3,
column=0)

txtIdly=Entry(f1,
font=('arial',16,'bold'),textvariable=Idly,bd=10,insertwidth=4,bg="white",justify='right')

txtIdly.grid(row=3,column=1)
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lblDosa= Label(f1, font=('arial', 16, 'bold'),text="Dosa",bd=16,anchor="w")
lblDosa.grid(row=4, column=0)

txtDosa=Entry(f1,
font=('arial',16,'bold'),textvariable=Dosa,bd=10,insertwidth=4,bg="white",justify='right')

txtDosa.grid(row=4,column=1)

lblPulav= Label(f1, font=('arial', 16, 'bold'),text="Rice-Plate",bd=16,anchor="w")
lblPulav.grid(row=5, column=0)

txtPulav=Entry(f1,
font=('arial',16,'bold'),textvariable=Pulav,bd=10,insertwidth=4,bg="white",justify='right')

txtPulav.grid(row=5,column=1)

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# RESTAURANT BILL INFO

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lblReference= Label(f1, font=('arial', 16, 'bold'),text="Reference",bd=16,anchor="w")
lblReference.grid(row=0, column=2)

txtReference=Entry(f1,
font=('arial',16,'bold'),textvariable=rand,bd=10,insertwidth=4,bg="powder
blue",justify='right')

txtReference.grid(row=0,column=3)

lblCost= Label(f1, font=('arial', 16, 'bold'),text="Cost of Meal",bd=16,anchor="w")
lblCost.grid(row=1, column=2)

txtCost=Entry(f1, font=('arial',16,'bold'),textvariable=Cost,bd=10,insertwidth=4,bg="powder
blue",justify='right')

txtCost.grid(row=1,column=3)

lblSgst= Label(f1, font=('arial', 16, 'bold'),text="SGST",bd=16,anchor="w")
lblSgst.grid(row=2, column=2)

txtSgst=Entry(f1, font=('arial',16,'bold'),textvariable=Sgst,bd=10,insertwidth=4,bg="powder
blue",justify='right')

txtSgst.grid(row=2,column=3)
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lblCgst= Label(f1, font=('arial', 16, 'bold'),text="CGST",bd=16,anchor="w")
lblCgst.grid(row=3, column=2)

txtCgst=Entry(f1, font=('arial',16,'bold'),textvariable=Cgst,bd=10,insertwidth=4,bg="powder
blue",justify='right')

txtCgst.grid(row=3,column=3)

lblTotalCost= Label(f1, font=('arial', 16, 'bold'),text="Total Cost",bd=16,anchor="w")
lblTotalCost.grid(row=4, column=2)

txtTotalCost=Entry(f1,
font=('arial',16,'bold'),textvariable=Total,bd=10,insertwidth=4,bg="powder
blue",justify='right')

txtTotalCost.grid(row=4,column=3)

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# BUTTONS

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btnTotal=Button(f1,padx=16,pady=8,bd=16,fg="black",font=('arial',16,'bold'),width=10,text=
"Total",bg="powder blue",command=Ref).grid(row=7,column=1)

btnReset=Button(f1,padx=16,pady=8,bd=16,fg="black",font=('arial',16,'bold'),width=10,text
="Reset",bg="powder blue",command=Reset).grid(row=7,column=2)

btnExit=Button(f1,padx=16,pady=8,bd=16,fg="black",font=('arial',16,'bold'),width=10,text="
Exit",bg="powder blue",command=qExit).grid(row=7,column=3)

root.mainloop()
```