GANPAT UNIVERSITY
U. V. PATEL COLLEGE OF ENGINEERING
B.Tech CE/IT Semester IV
2CEIT404: Python Programming

Practical-10: Python GUI using tkinter

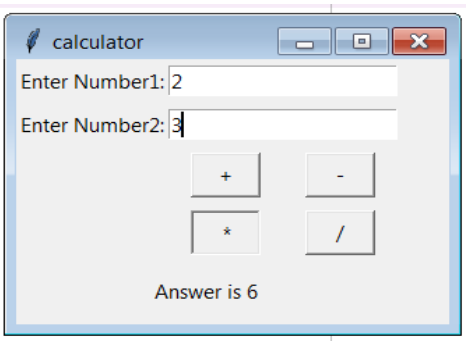
1. Write a Python GUI program to create simple calculator.

INPUT:

```
from tkinter import *

w=Tk()
var=IntVar()
w.geometry("300x200")
w.title("Calculator")
def show(op):
    n1=int(e1.get())
    n2=int(e2.get())
    if(op=='+'):
        ans=n1+n2
    elif op=='-':
        ans=n1-n2
    elif op=='*':
        ans=n1*n2
    elif op=='/':
        ans=n1//n2
    else:
        ans="choose proper operator"

    ans='Answer is :',str(ans)
    l3.config(text=ans)

l1=Label(w,text="Enter Number1:").grid(row=0,column=0)
l2=Label(w,text="Enter Number2:").grid(row=1,column=0)
e1=Entry(w)
e1.grid(row=0,column=1,columnspan=2)
e2=Entry(w)
e2.grid(row=1,column=1,columnspan=2)

b1=Button(w,text="+",width=5,command=lambda:show('+'))
b1.grid(row=3,column=1)
b2=Button(w,text="-",width=5,command=lambda:show('-'))
b2.grid(row=3,column=2)
b3=Button(w,text="*",width=5,command=lambda:show('*'))
b3.grid(row=4,column=1)
b4=Button(w,text="/",width=5,command=lambda:show('/'))
b4.grid(row=4,column=2)
```

```
l3=Label(w)
l3.grid(row=5,column=0,columnspan=4)
w.mainloop()
```

OUTPUT:



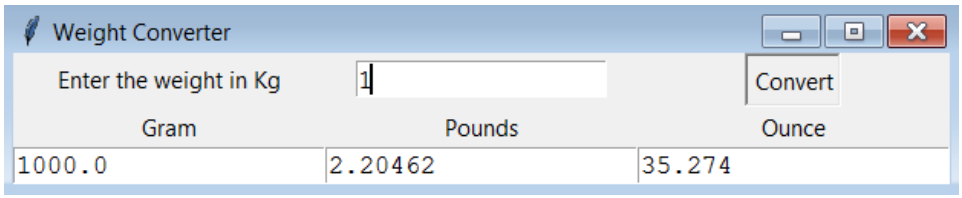
2. Make weight conversion GUI from kg to gram, pound and ounce using tkinter.

INPUT:

```
from tkinter import *
w=Tk()
var=IntVar()
w.geometry("300x200")
w.title("Calculator")
def show(op):
    n1=int(e1.get())
    n2=int(e2.get())
    if(op=='+'):
        ans=n1+n2
    elif op=='-':
        ans=n1-n2
    elif op=='*':
        ans=n1*n2
    elif op=='/':
        ans=n1//n2
```

```
    else:
        ans="choose proper operator"

    ans='Answer is :',str(ans)
    l3.config(text=ans)

l1=Label(w,text="Enter Number1:").grid(row=0,column=0)
l2=Label(w,text="Enter Number2:").grid(row=1,column=0)
e1=Entry(w)
e1.grid(row=0,column=1,columnspan=2)
e2=Entry(w)
e2.grid(row=1,column=1,columnspan=2)
b1=Button(w,text="+",width=5,command=lambda:show('+'))
b1.grid(row=3,column=1)
b2=Button(w,text="-",width=5,command=lambda:show('-'))
b2.grid(row=3,column=2)
b3=Button(w,text="*",width=5,command=lambda:show('*'))
b3.grid(row=4,column=1)
b4=Button(w,text="/",width=5,command=lambda:show('/'))
b4.grid(row=4,column=2)
l3=Label(w)
l3.grid(row=5,column=0,columnspan=4)
w.mainloop()
```

OUTPUT:



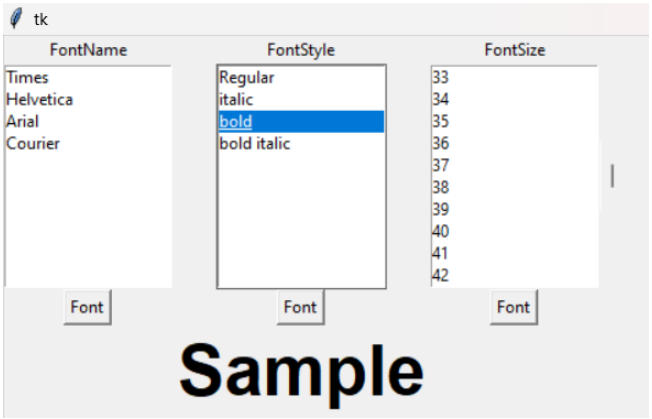
3. Write python GUI to make font menu.

INPUT:

```
from tkinter import *
top=Tk()
top.geometry("500x500")
font=StringVar()

def Font_change():
    f=lfont.get(ACTIVE)
    l4.config(font=(f,))

def font_style():
    fsize=fontsize.get(ACTIVE)
    fstyle=fontstyle.get(ACTIVE)
    l4.config(font=(',fsize,fstyle))

def Font_size():
    fsize=fontsize.get(ACTIVE)
    l4.config(font=(',fsize,))

l1=Label(top,text="FontName")
l1.grid(row=0,column=0)

l2=Label(top,text="FontStyle")
l2.grid(row=0,column=1)

l3=Label(top,text="FontSize")
l3.grid(row=0,column=2)

lfont=Listbox(top)
lfont.insert(0,"Times")
lfont.insert(1,"Helvetica")
lfont.insert(2,"Arial")
lfont.insert(3,"Courier")
lfont.grid(row=1,column=0)

fontstyle=Listbox(top)
fontstyle.insert(0,'Regular')
fontstyle.insert(1,'italic')
fontstyle.insert(2,'bold')
fontstyle.insert(3,'bold italic')
fontstyle.grid(row=1,column=1)

fontsize=Listbox(top)
for i in range(150):
```

```
    fontsize.insert(i,str(i+1))
    fontsize.grid(row=1,column=2)
s=Scrollbar(top,orient="vertical")
s.grid(row=1,column=3)
fontsize.config(yscrollcommand=s.set)
s.config(command=fontsize.yview)
s.set(0,0)

l4=Label(top,text="Sample")
l4.grid(row=3,column=1)

b1=Button(top,text='Font',command=Font_change)
b1.grid(row=2,column=0)

b2=Button(top,text='Font',command=font_style)
b2.grid(row=2,column=1)

b3=Button(top,text='Font',command=Font_size)
b3.grid(row=2,column=2)

top.mainloop()
```

OUTPUT:



4. Create student registration page with enrollment, name, gender, address, branch name, mobile number and email address fields and store all data in data base.

INPUT:

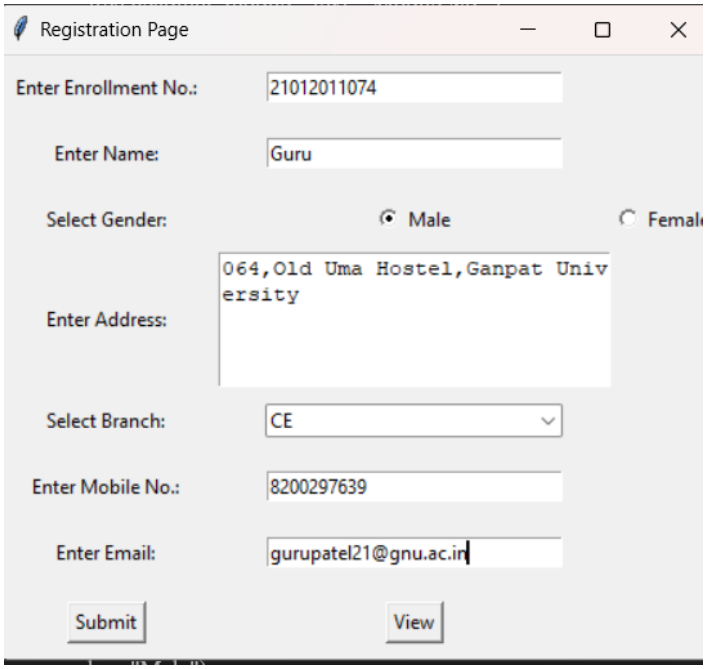
```
import pymysql
from tkinter import *
from tkinter import ttk

mydb = pymysql.connect(
  host="localhost",
  user="root",
```

```
  password="12345",
  database="guru"
)

mycursor = mydb.cursor()
mycursor.execute("CREATE TABLE IF NOT EXISTS student_info
(enrollment_no VARCHAR(11), name VARCHAR(255), gender
VARCHAR(6), address VARCHAR(255), branch VARCHAR(5), mobile
VARCHAR(10), email VARCHAR(255))")

def submit():
    enrollment_no = enrollment_no_entry.get()
    name = name_entry.get()
    gender = gender_var.get()
    address = address_text.get("1.0", "end-1c")
    branch = branch_combobox.get()
    mobile = mobile_entry.get()
    email = email_entry.get()

    mycursor.execute("INSERT INTO student_info (enrollment_no, name,
gender, address, branch, mobile, email) VALUES (%s, %s, %s, %s, %s, %s,
%s)", (enrollment_no, name, gender, address, branch, mobile, email))
    mydb.commit()

    enrollment_no_entry.delete(0, END)
    name_entry.delete(0, END)
    male_radio.deselect()
    female_radio.deselect()
    address_text.delete("1.0", END)
    branch_combobox.set("")
    mobile_entry.delete(0, END)
    email_entry.delete(0, END)

def view():
    mycursor.execute("SELECT * FROM student_info")
    rows = mycursor.fetchall()

    view_window = Tk()
    view_window.title("View Data")

    tree = ttk.Treeview(view_window)
    tree["columns"] = ("enrollment_no", "name", "gender", "address", "branch",
"mobile", "email")
    tree.column("#0", width=0, stretch=NO)
    tree.column("enrollment_no", width=100)
    tree.column("name", width=100)
```

```
    tree.column("gender", width=100)
    tree.column("address", width=200)
    tree.column("branch", width=100)
    tree.column("mobile", width=100)
    tree.column("email", width=200)

    tree.heading("enrollment_no", text="Enrollment No.")
    tree.heading("name", text="Name")
    tree.heading("gender", text="Gender")
    tree.heading("address", text="Address")
    tree.heading("branch", text="Branch")
    tree.heading("mobile", text="Mobile No.")
    tree.heading("email", text="Email")

    for row in rows:
        tree.insert("", END, text="", values=row)
    tree.pack()

root = Tk()
root.title("Registration Page")

enrollment_no_label = Label(root, text="Enter Enrollment No.:")
enrollment_no_label.grid(row=0, column=0, padx=10, pady=10)
enrollment_no_entry = Entry(root, width=30)
enrollment_no_entry.grid(row=0, column=1)

name_label = Label(root, text="Enter Name:")
name_label.grid(row=1, column=0, padx=10, pady=10)
name_entry = Entry(root, width=30)
name_entry.grid(row=1, column=1)

gender_label = Label(root, text="Select Gender:")
gender_label.grid(row=2, column=0, padx=10, pady=10)
gender_var = StringVar()
male_radio = Radiobutton(root, text="Male", variable=gender_var,
value="Male")
male_radio.grid(row=2, column=1)
female_radio = Radiobutton(root, text="Female", variable=gender_var,
value="Female")
female_radio.grid(row=2, column=2
address_label = Label(root, text="Enter Address:")
address_label.grid(row=3, column=0, padx=10, pady=10)
address_text = Text(root, height=5, width=30)
address_text.grid(row=3, column=1)

branch_label = Label(root, text="Select Branch:")
```

```
branch_label.grid(row=4, column=0, padx=10, pady=10)
branch_combobox = ttk.Combobox(root, width=27, state="readonly")
branch_combobox["values"] = ("CE", "IT", "AI", "CSBS")
branch_combobox.grid(row=4, column=1)

mobile_label = Label(root, text="Enter Mobile No.:")
mobile_label.grid(row=5, column=0, padx=10, pady=10)
mobile_entry = Entry(root, width=30)
mobile_entry.grid(row=5, column=1)

email_label = Label(root, text="Enter Email:")
email_label.grid(row=6, column=0, padx=10, pady=10)
email_entry = Entry(root, width=30)
email_entry.grid(row=6, column=1)

submit_button = Button(root, text="Submit", command=submit)
submit_button.grid(row=7, column=0, padx=10, pady=10)
view_button = Button(root, text="View", command=view)
view_button.grid(row=7, column=1, padx=10, pady=10)

root.mainloop()
```

OUTPUT:



Enrollment No.	Name	Gender	Address	Branch	Mobile No.	Email
21012011074	Guru	Male	064,Old Uma Hostel,Ganpat Universi	CE	8200297639	gurupatel21@gnu.ac.in