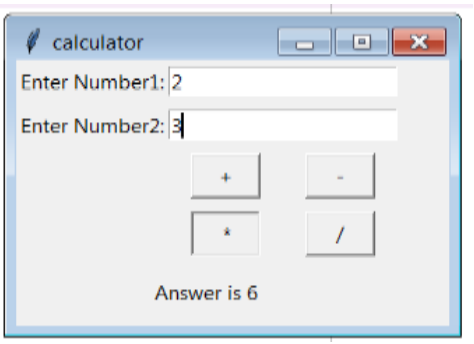
GANPAT UNIVERSITY
U. V. PATEL COLLEGE OF ENGINEERING
B.Tech CE/IT Semester IV
2CEIT404: Python Programming

Practical-10: Python GUI using tkinter

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

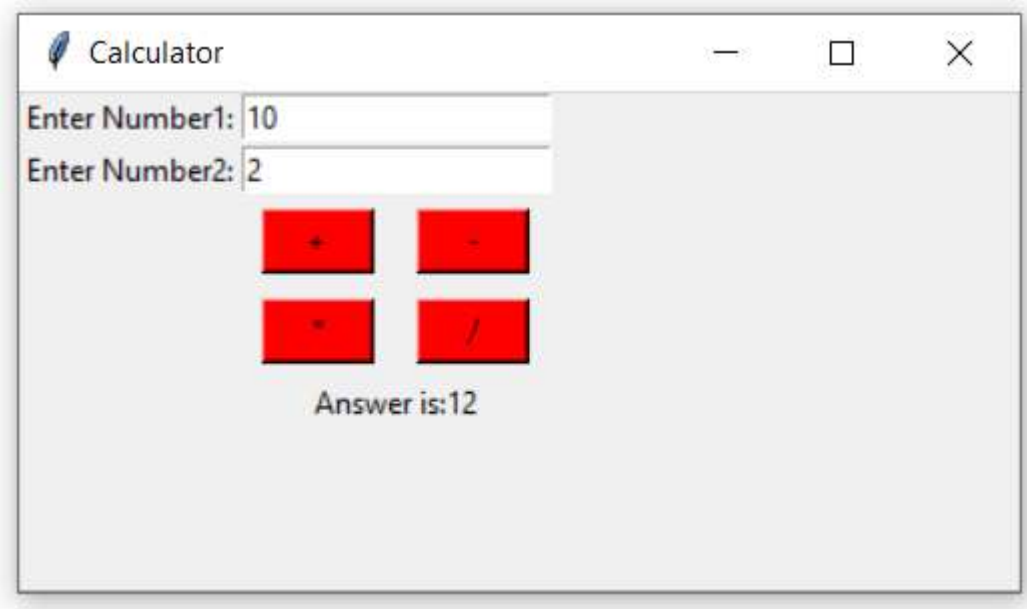


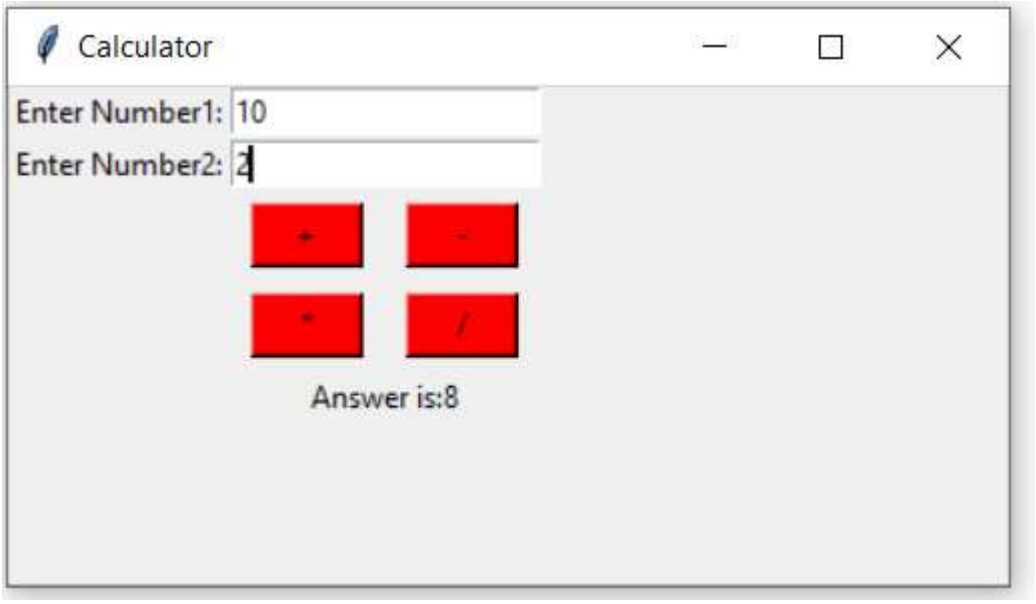
Code:

```
from ctypes.wintypes import HANDLE
from tkinter import*
top= Tk()
top.geometry("400x200")
top.title("Calculator")
def sum(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
    ans = "Answer is:"+str(ans)
    l1.config(text=ans)



first = Label(top,text="Enter Number1:").grid(row=0,column=0)
e1 = Entry(top)
```

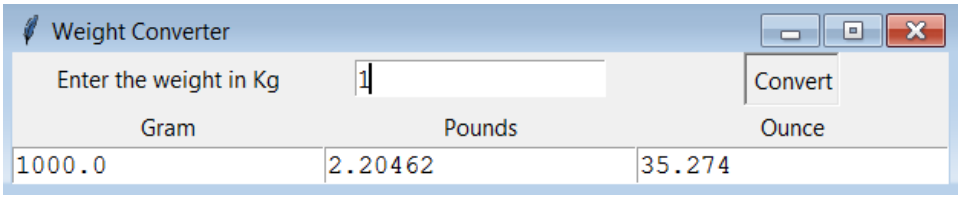
```
e1.grid(row=0,column=1,columnspan=2)
second = Label(top,text="Enter Number2:").grid(row=1,column=0)
e2 = Entry(top)
e2.grid(row=1,column=1,columnspan=2)
first_button =
Button(top,text="+",cursor="circle",foreground="Black",background="red",
width=5,command=lambda:sum('+')).grid(row=2,column=1,pady=5)
second_button = Button(top,text="-
",foreground="Black",background="red",width=5,command=lambda:sum('-
')).grid(row=2,column=2,pady=5)
third_button =
Button(top,text="*",foreground="Black",background="red",width=5,command=
lambda:sum('*')).grid(row=4,column=1,pady=5)
four_button =
Button(top,text="/",foreground="Black",background="red",width=5,
command=lambda:sum('/')).grid(row=4,column=2,pady=5)
l1= Label(top)
l1.grid(row=5,column=1,columnspan=2)



top.mainloop()
```

Output:





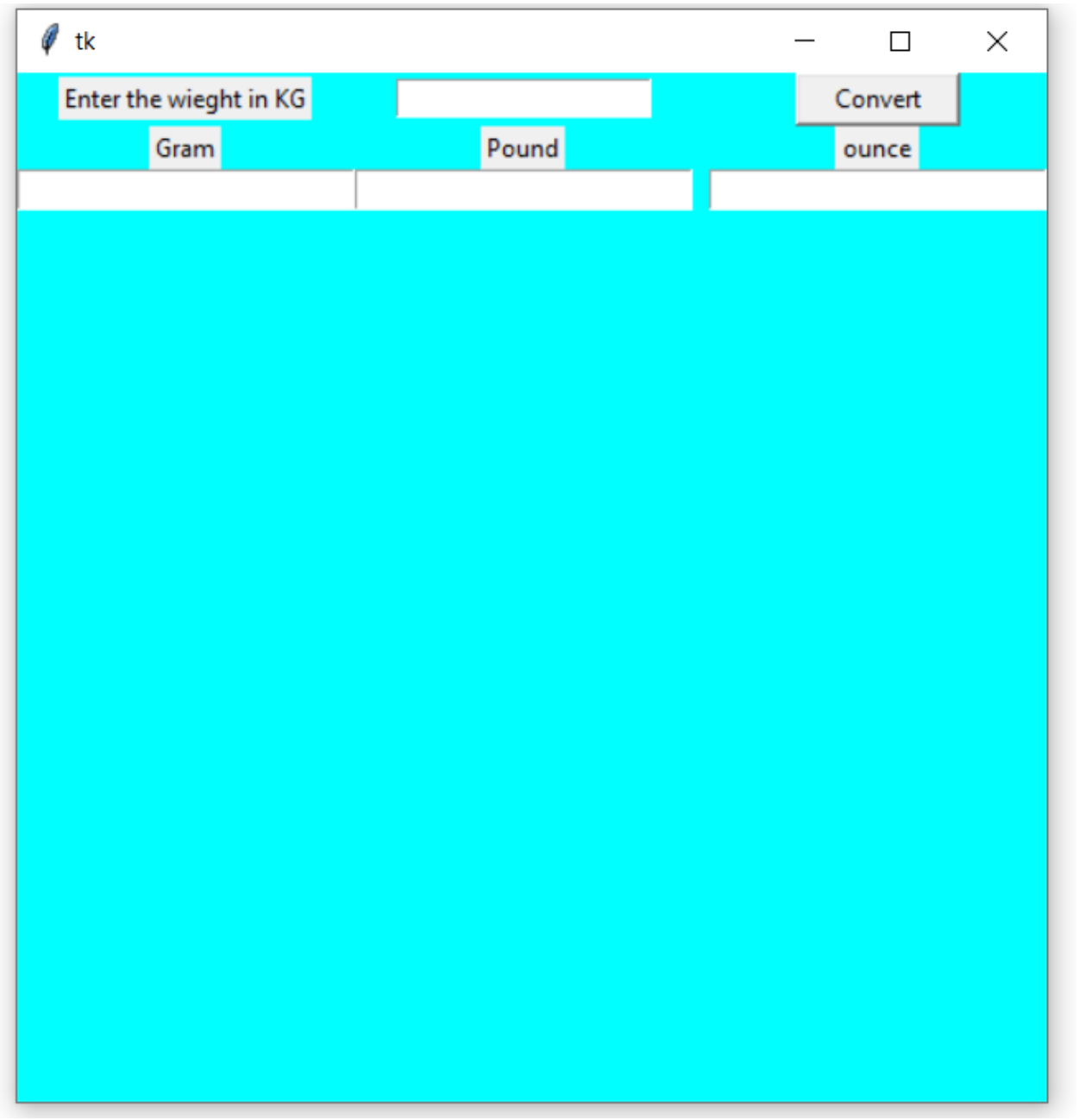
2.Make weight conversion GUI from kg to gram, pound and ounce using tkinter.

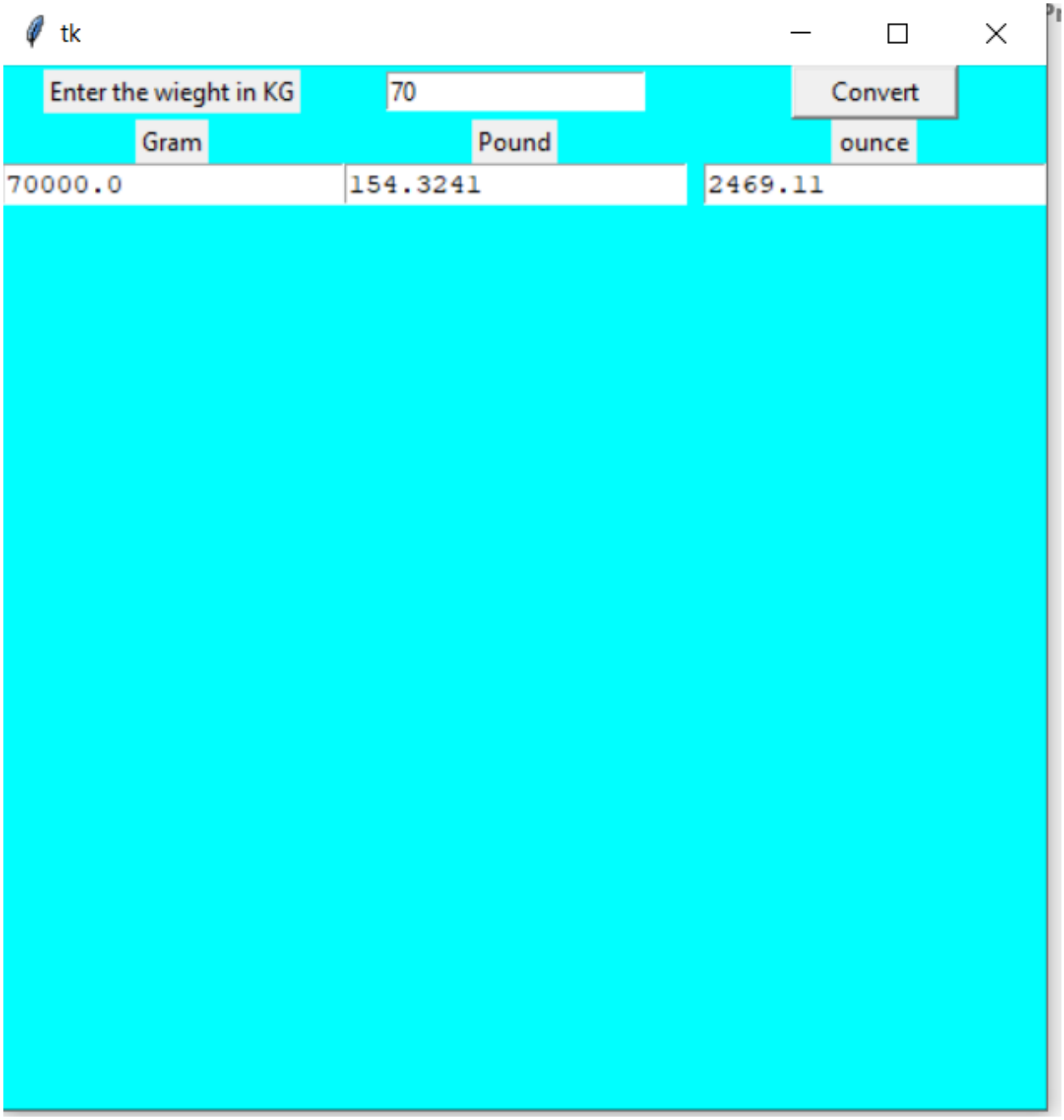


Code:

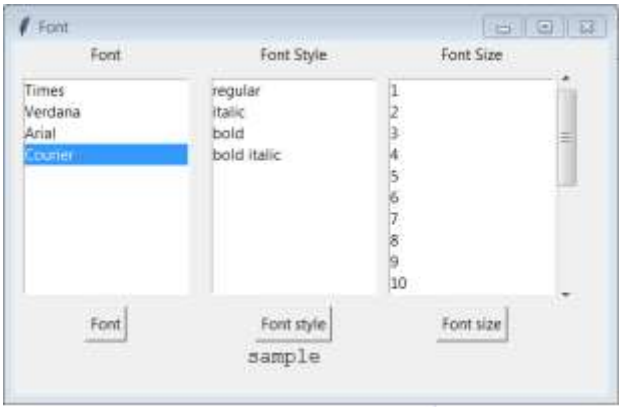
```
from tkinter import*
top = Tk()
top.configure(bg="Aqua")
top.geometry("500x500")

def from_kg():
    gram=float(e1.get())*1000
    pounds=float(e1.get())*2.20463
    ounce=float(e1.get())*35.273

    e2.delete("1.0",END)
    e2.insert(END,gram)

    e3.delete("1.0",END)
    e3.insert(END,pounds)

    e4.delete("1.0",END)
    e4.insert(END,ounce)


first =Label(top,text="Enter the wieght in KG")
first.grid(row=0,column=0)
e1=Entry(top)
e1 = Entry(top,textvariable=e1)
e1.grid(row=0,column=1)
convert = Button(top,text="Convert",width=10,command=from_kg)
convert.grid(row=0,column=2,padx=50)
second =Label(top,text="Gram")
second.grid(row=1,column=0)
third = Label(top,text="Pound",width=5)
third.grid(row=1,column=1)
four = Label(top,text="ounce",width=5)
four.grid(row=1,column=2)
e2 =Text(top,height=1,width=20)
e2.grid(row=2,column=0)
e3 =Text(top,height=1,width=20)
e3.grid(row=2,column=1)
e4 =Text(top,height=1,width=20)
e4.grid(row=2,column=2)

top.mainloop()
```

Output:


tk
Enter the wieght in KG
Convert
Gram
Pound
ounce


tk
Enter the wieght in KG
70
Convert
Gram
Pound
ounce
70000.0
154.3241
2469.11

3.Write python GUI to make font menu.

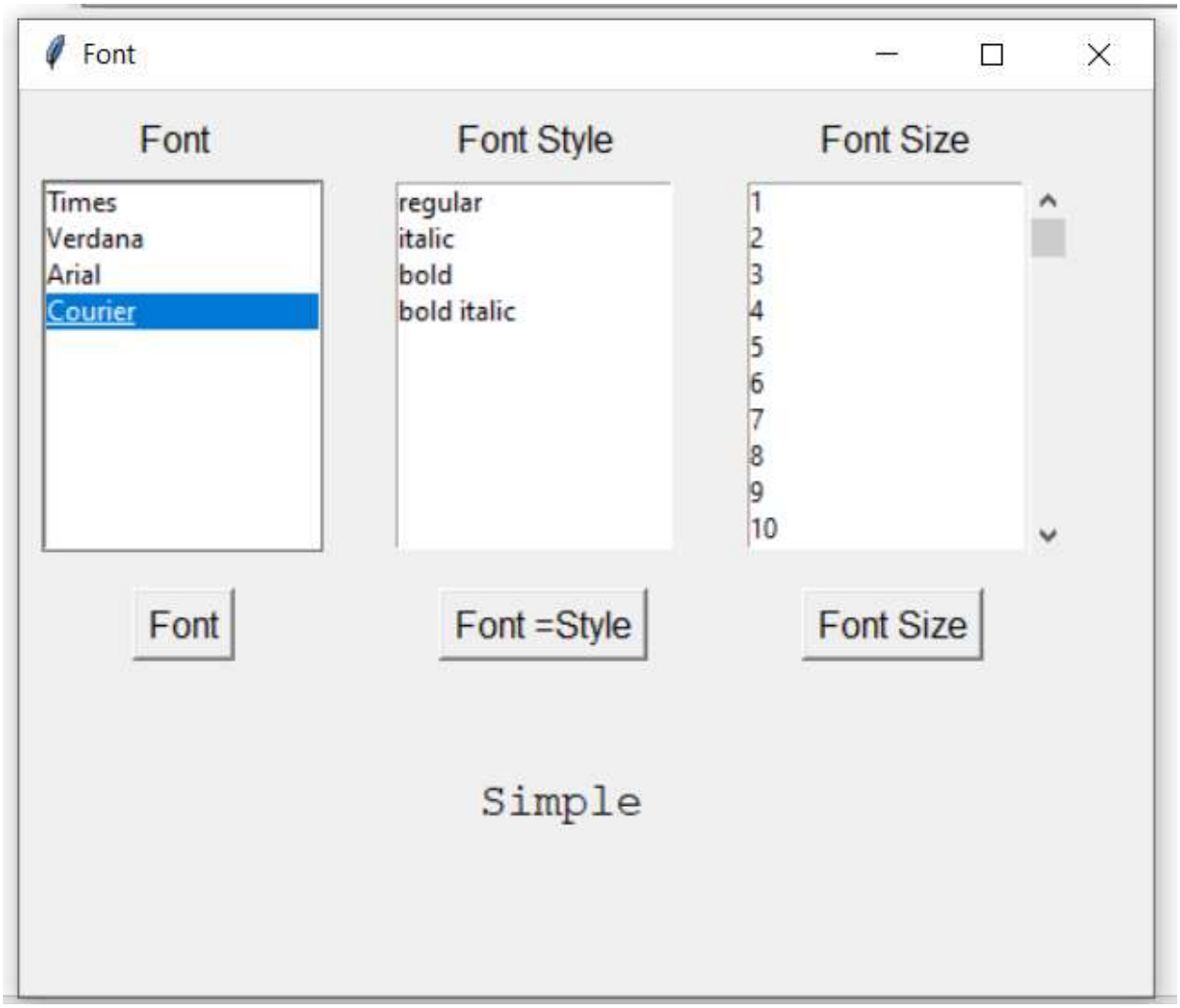


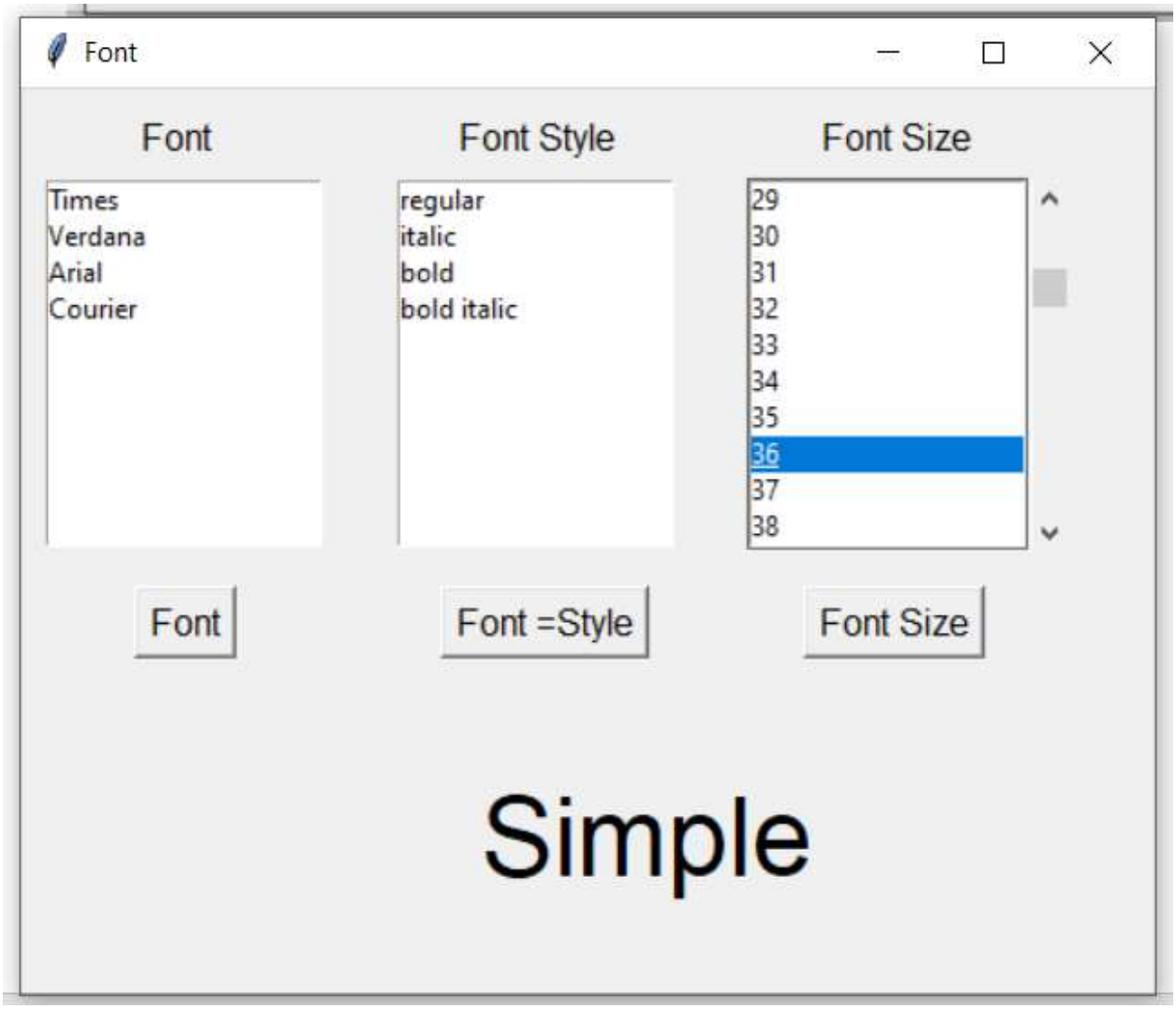
Code:

```
      from tkinter import *

top=Tk()
top.title('Font')
top.geometry('500x400')
font=StringVar()
def font_change():
    f=Lfont.get(ACTIVE)
    l4.config(font=(f,))
def fontSize():
    fsize=fontsize.get(ACTIVE)
    l4.config(font=('',fsize,))
def fontStyle():
    fsize=fontsize.get(ANCHOR)
    fstyle=fontstyle.get(ACTIVE)
    l4.config(font=(' ',fsize,fstyle))
l1=Label(top,text='Font',font=('bold',12))
l1.place(x=50,y=10)
l2=Label(top,text='Font Style',font=('bold',12))
l2.place(x=190,y=10)
l3=Label(top,text='Font Size',font=('bold',12))
l3.place(x=350,y=10)
Lfont=Listbox(top)
Lfont.insert(0,'Times')
Lfont.insert(1,'Verdana')
Lfont.insert(2,'Arial')
Lfont.insert(3,'Courier')
Lfont.place(x=10,y=40)

fontstyle=Listbox(top)
fontstyle.insert(0,'regular')
fontstyle.insert(1,'italic')
fontstyle.insert(2,'bold')
```

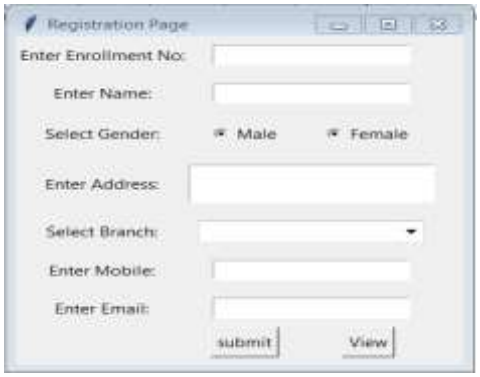
```
fontstyle.insert(3,'bold italic')
fontstyle.place(x=165,y=40)
fontsize=Listbox(top)
for i in range(0,150):
   fontsize.insert(i,str(i+1))
   fontsize.place(x=320,y=40)
s=Scrollbar(top,orient='vertical')
s.place(x=445,y=40,height=165)
fontsize.config(yscrollcommand=s.set)
s.config(command=fontsize.yview)
s.set(0,0)
l4=Label(top,text='Simple')
l4.place(x=200,y=300)
b1=Button(top,text='Font',font=('bold',12),command=font_change)
b1.place(x=50,y=220)
b2=Button(top,text='Font =Style',font=('bold',12),command=fontStyle)
b2.place(x=185,y=220)
b3=Button(top,text='Font Size',font=('bold',12),command=fontSize)
b3.place(x=345,y=220)
top.mainloop()
```

Output:


Font
Font
Font Style
Font Size
Times
Verdana
Arial
Courier
regular
italic
bold
bold italic
1
2
3
4
5
6
7
8
9
10
Font
Font =Style
Font Size
Simple



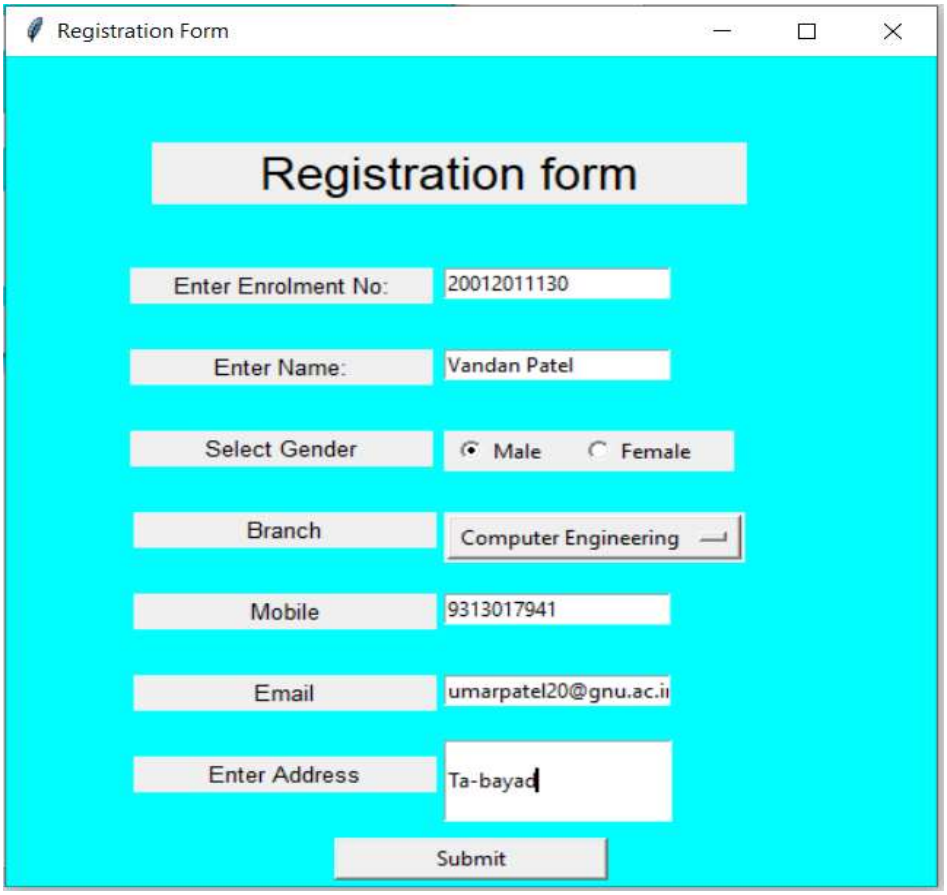
4.Create a student registration page with enrollment, name, gender, address, branch name, mobile number and email address fields and store all data in the database.

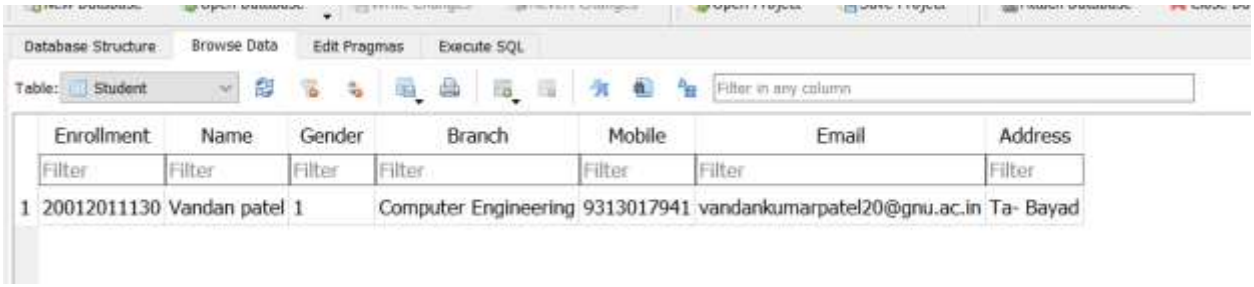


Code:

```
from tkinter import *
import sqlite3
root = Tk()
root.geometry('510x510')
root.title("Registration Form")
root.config(bg='aqua')

name = StringVar()
en = StringVar()
var = IntVar()
var1 = IntVar()
Email = StringVar()
mob = StringVar()
branch = StringVar()
add=StringVar()

def database():
 name1 = name.get()
 enr = en.get()
 gend = var.get()
 br = branch.get()
 m = mob.get()
 e = Email.get()
 ad=add.get()
 conn = sqlite3.connect('Form1.db')
 with conn:
   cursor = conn.cursor()
   cursor.execute('CREATE TABLE IF NOT EXISTS Student (Enrollment TEXT,Name
TEXT,Gender Text,Branch TEXT,Mobile TEXT,Email TEXT,Address TEXT)')

   cursor.execute('INSERT INTO Student
(Enrollment,Name,Gender,Branch,Mobile,Email,Address) VALUES(?,?,?,?,?,?,?)',
( enr,name1, gend,br,m,e,ad))
   conn.commit()

label_0 = Label(root, text="Registration form", width=20, font=("bold", 20))
label_0.place(x=80, y=53)
label_1 = Label(root, text="Enter Enrolment No:", width=20, font=("bold",
10))
label_1.place(x=68, y=130)
entry_1 = Entry(root, textvar=en)
entry_1.place(x=240, y=130)
```

```
label_2 = Label(root, text="Enter Name:", width=20, font=("bold", 10))
label_2.place(x=68, y=180)
entry_2 = Entry(root, textvar=name)
entry_2.place(x=240, y=180)
label_3 = Label(root, text="Select Gender", width=20, font=("bold", 10))
label_3.place(x=68, y=230)
Radiobutton(root, text="Male", padx=5, variable=var, value=1).place(x=240,
y=230)
Radiobutton(root, text="Female", padx=20, variable=var,
value=2).place(x=295,
y=230)
label_4 = Label(root, text="Branch", width=20, font=("bold", 10))
label_4.place(x=70, y=280)
op = ['--Select Branch--','Computer Engineering','Information Technology']
branch.set(op[0])
w = OptionMenu(root, branch, *op)
w.place(x = 240,y = 280)
label_5 = Label(root, text="Mobile", width=20, font=("bold", 10))
label_5.place(x=70, y=330)
entry_2 = Entry(root, textvar=mob)
entry_2.place(x=240, y=330)
label_6 = Label(root, text="Email", width=20, font=("bold", 10))
label_6.place(x=70, y=380)
entry_2 = Entry(root, textvar=Email)
entry_2.place(x=240, y=380)
label_7 = Label(root, text="Enter Address", width=20, font=("bold", 10))
label_7.place(x=70, y=430)

entry_2 = Entry(root, textvar=add)
entry_2.place(x=240, y=420,height=50,width=125)
Button(root, text='Submit',width=20,command=database).place(x=180, y=480)
root.mainloop()
```


Registration Form
Registration form
Enter Enrolment No:
20012011130
Enter Name:
Vandan Patel
Select Gender
Male
Female
Branch
Computer Engineering
Mobile
9313017941
Email
umarpatel20@gnu.ac.i
Enter Address
Ta-bayad
Submit


Database Structure
Browse Data
Edit Pragmas
Execute SQL
Table: Student
Filter in any column
Enrollment
Name
Gender
Branch
Mobile
Email
Address
1 20012011130 Vandan patel 1 Computer Engineering 9313017941 vandankumarpatel20@gnu.ac.in Ta- Bayad