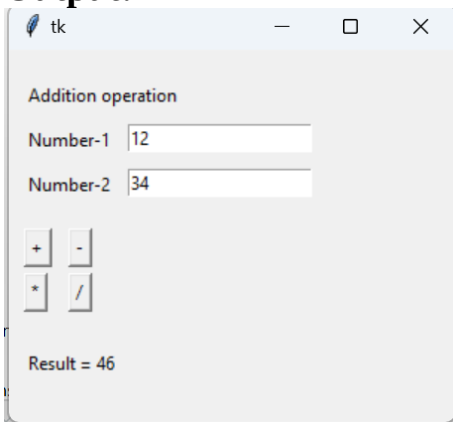
Practical-10: Python GUI using tkinter

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

Code:

```
from tkinter import *
top = Tk()
top.geometry("300x250")
l1=Label(top,text="Addition operation")
l2=Label(top,text="Number-1")
l3=Label(top,text="Number-2")
l4=Label(top,text="")
n1=StringVar()
n2=StringVar()
e1=Entry(top,textvariable=n1)
e2=Entry(top,textvariable=n2)
l1.place(x=10,y=20)
l2.place(x=10,y=50)
l3.place(x=10,y=80)
l4.place(x=10,y=200)
e1.place(x=80,y=50)
e2.place(x=80,y=80)
def sum():
    print('hi')
    num1 = (n1.get())
    num2 = (n2.get())
    result = int(num1)+int(num2)
    l4.config(text="Result = %d" % result)
b=Button(top, text="+",command=sum).place(x=10,y=120)
def min():
    print('hi')
    num1 = (n1.get())
    num2 = (n2.get())
    result = int(num1)-int(num2)
    l4.config(text="Result = %d" % result)
b=Button(top, text="-",command=min).place(x=40,y=120)
def Mul():
    print('hi')
    num1 = (n1.get())
    num2 = (n2.get())
    result = int(num1)*int(num2)
    l4.config(text="Result = %d" % result)
b=Button(top, text="*",command=Mul).place(x=10,y=150)
def Div():
    print('hi')
    num1 = (n1.get())
    num2 = (n2.get())
    result = int(num1)/int(num2)
    l4.config(text="Result = %d" % result)
b=Button(top, text="/",command=Div).place(x=40,y=150)
top.mainloop()
```

Output:



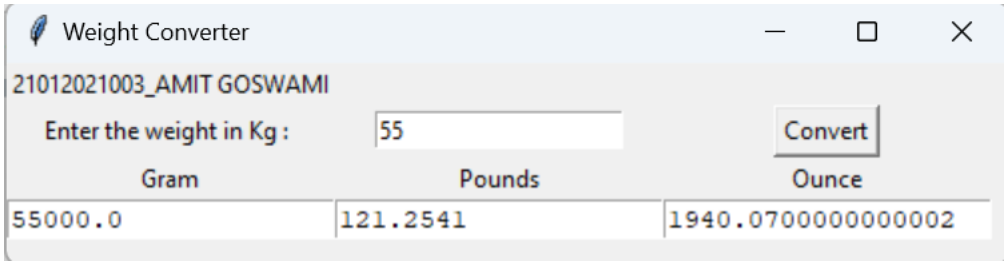
2. **Make weight conversion GUI from kg to gram, pound and ounce usingtkinter.**

Code:

```
from cgitb import text
from tkinter import *
from turtle import width
top=Tk()
top.geometry("500x100")
top.title("Weight Converter")
l1=Label(top,text="21012021003_AMIT GOSWAMI").grid(row=0,column=0)
l2=Label(top,text="Enter the weight in Kg : ").grid(row=1,column=0)
l3=Label(top,text="Gram").grid(row=2,column=0)
l4=Label(top,text="Pounds").grid(row=2,column=1)
l5=Label(top,text="Ounce").grid(row=2,column=2)
n1=StringVar()
e1=Entry(top,textvariable=n1)
e1.grid(row=1,column=1)
lb1=Text(top,height=1,width=20)
lb1.grid(row=3,column=0)
lb2=Text(top,height=1,width=20)
lb2.grid(row=3,column=1)
lb3=Text(top,height=1,width=20)
lb3.grid(row=3,column=2)
def ktg():
    gram =float(e1.get())*1000
    pound=float(e1.get())*2.20462
    ounce=float(e1.get())*35.274
    lb1.insert("1.0",gram)

    lb2.insert("1.0",pound)
    lb3.insert("1.0",ounce)
b1=Button(top,text="Convert",command=ktg).grid(row=1,column=2)
top.mainloop()
```

Output:



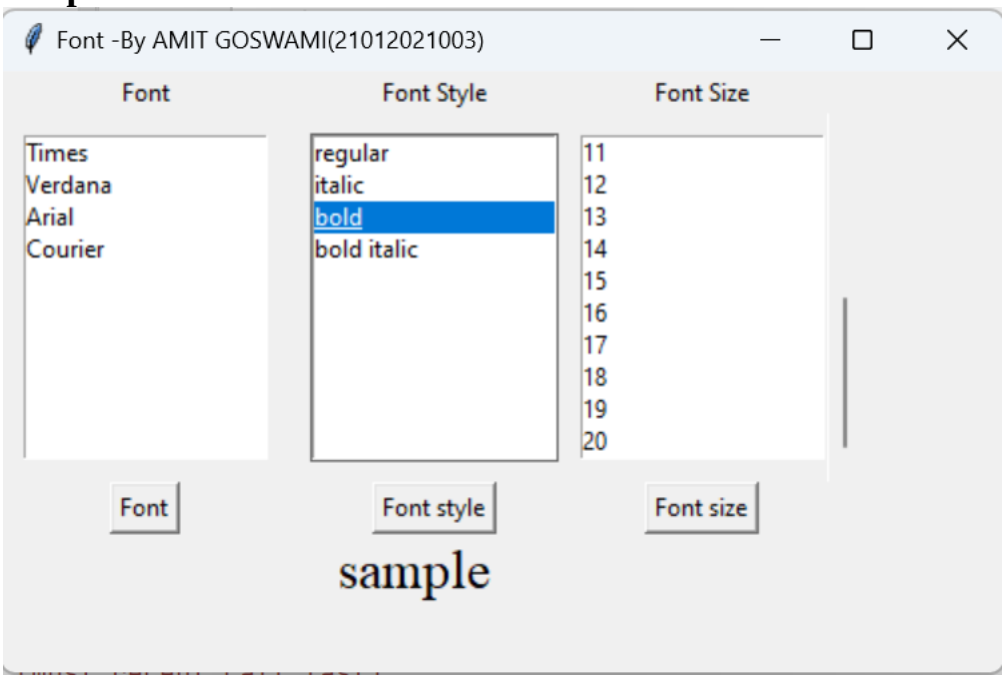
3. Write python GUI to make font menu.

Code:

```
from tkinter import *
top=Tk()
top.geometry("500x300")
top.title("Font -By AMIT GOSWAMI(21012021003)")
def show():
    a=lb.curselection()
    a=lb.get(a)
    if(len(a>0)):
        l1.config(font=(a,"12"))
def show1():
    a1=lb1.curselection()
    a1=lb1.get(a1)
    print(a1)
    if(len(a1>0)):
        l1.config(font=("times","12",a1))
def show2():
    a2=lb2.curselection()
    a2=lb2.get(a2)
    print(a2)
    if(a2>0):
        l1.config(font=("times",a2))
l2=Label(top,text="Font")
l2.grid(row=0,column=0)
lb=Listbox(top)
list1=["Times","Verdana","Arial","Courier"]
for i in range(0,len(list1)):
    lb.insert(i+1,list1[i])
lb.grid(row=1,column=0,pady=10,padx=10)
l3=Label(top,text="Font Style")
l3.grid(row=0,column=1)
lb1=Listbox(top)
list2=["regular","italic","bold","bold italic"]
for i in range(0,len(list2)):
    lb1.insert(i+1,list2[i])
lb1.grid(row=1,column=1,pady=10,padx=10)
s1 = Scrollbar(top)
s1.grid(sticky=NS,row=1,column=3)
l4=Label(top,text="Font Size")
l4.grid(row=0,column=2)
lb2=Listbox(top,yscrollcommand = s1.set)
for i in range(1,21):
    lb2.insert(i,i)
lb2.grid(row=1,column=2,pady=10)
s1.config(command = lb2.yview )
b1=Button(top,text="Font",command=show)
b1.grid(row=7,column=0)
b2=Button(top,text="Font style",command=show1)
b2.grid(row=7,column=1)
b3=Button(top,text="Font size",command=show2)
b3.grid(row=7,column=2)
```

```
l1=Label(top,text="sample")
l1.grid(row=8,column=0,columnspan=3)
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.**

Code:

```
from tkinter import ttk
from tkinter import *
from unicodedata import name
import pymysql
top=Tk()
top.geometry("400x300")
top.title("Registration Page [-By AMIT GOSWAMI(21012021003)]")
l1=Label(top,text="Enter Enrollment number : ").grid(row=1,column=1)
l2=Label(top,text="Enter Name : ").grid(row=2,column=1)
l3=Label(top,text="Select Gender : ").grid(row=3,column=1)
l4=Label(top,text="Enter Address : ").grid(row=4,column=1)
l5=Label(top,text="Select Branch : ").grid(row=5,column=1)
l6=Label(top,text="Enter Mobile : ").grid(row=6,column=1)
l7=Label(top,text="Enter E-Mail : ").grid(row=7,column=1)
n1=StringVar()
n2=StringVar()
n3=StringVar()
n4=StringVar()
n5=StringVar()
e1=Entry(top,textvariable=n1).grid(row=1,column=2,columnspan=2)
e2=Entry(top,textvariable=n2).grid(row=2,column=2,columnspan=2)
e3=Entry(top,textvariable=n3).grid(row=4,column=2,columnspan=2)
e4=Entry(top,textvariable=n4).grid(row=6,column=2,columnspan=2)
e5=Entry(top,textvariable=n5).grid(row=7,column=2,columnspan=2)
radio=StringVar(top,"Male")
r1=Radiobutton(top,text="Male",variable=radio,value='Male').grid(row=3,column=2)
```

```
r2=Radiobutton(top,text="Female",variable=radio,value='Female').grid(row=3,column=3)
branch = ["--Select Branch--","I.T.","C.E.","A.I.","Cyber Security"]
cb=ttk.Combobox(top,values=branch)
cb.current(0)
cb.grid(row=5,column=2,columnspan=2)
def save():
    enroll1=int(n1.get())
    nam=n2.get()
    gen=radio.get()
    add=n3.get()
    br=cb.get()
    m=int(n4.get())
    em=n5.get()
    print(enroll1, nam, gen, add, br, m, em)
    print(type(enroll1), type(nam), type(gen), type(add), type(br),type(m), type(em))
    try:
        con=pymysql.connect(host="localhost",user="root",password="",database="demo_data")
        Cursor=con.cursor()
        q1="Create table if not exists Student_data(Enrollment_no int,Name varchar(20),Gender
varchar(20),Address varchar(20),Branch varchar(20),Mobile_no int,E_mail varchar(20))"
        qry="insert into Student_data values(%d,'%s','%s','%s','%s',%d,'%s')"
        Cursor.execute(q1)
        Cursor.execute(qry %(enroll1,nam,gen,add,br,m,em))
        con.commit()
    except pymysql.DatabaseError as e:
        print("Error: ",e)
        print("Table created sucessfully.")

b1=Button(top,text="Submit",command=save).grid(row=8,column=2)
top.mainloop()
```

Output: