

## Project:

m:

• create a simple project using  
UI widgets.

Simple Calculator.

```

from tkinter import *
def press(num):
    global expression
    expression = expression + str(num)
    equation.set(expression)
def equalpress():
    try:
        global expression
        total = str(eval(expression))
        equation.set(total)
        expression = ""
    except:
        equation.set(" error ")
        expression = ""
def clear():
    global expression
    expression = ""
    equation.set("")
if __name__ == "__main__":
    gui = Tk()
    gui.configure(background="light green")
    gui.title("Simple Calculator")
    gui.geometry("265x125")
    equation = StringVar()
    expression_field = Entry(gui, textvariable=equation)
    expression_field.grid(columnspan=4, ipadx=70)
    equation.set('enter your expression')
    button1 = Button(gui, text=' 1 ', fg='black', bg='red',
                     command=lambda: press(1), height=1, width=7)
    button1.grid(row=2, column=0)

    button2 = Button(gui, text=' 2 ', fg='black', bg='red',
                     command=lambda: press(2), height=1, width=7)
    button2.grid(row=2, column=1)

    button3 = Button(gui, text=' 3 ', fg='black', bg='red',
                     command=lambda: press(3), height=1, width=7)
    button3.grid(row=2, column=2)

    button4 = Button(gui, text=' 4 ', fg='black', bg='red',
                     command=lambda: press(4), height=1, width=7)
    button4.grid(row=3, column=0)

    button5 = Button(gui, text=' 5 ', fg='black', bg='red',
                     command=lambda: press(5), height=1, width=7)
    button5.grid(row=3, column=1)

```



## Project:

```
button6 = Button(gui, text=' 6 ', fg='black', bg='red',  
                  command=lambda: press(6), height=1, width=7)  
button6.grid(row=3, column=2)
```

```
button7 = Button(gui, text=' 7 ', fg='black', bg='red',  
                  command=lambda: press(7), height=1, width=7)  
button7.grid(row=4, column=0)
```

```
button8 = Button(gui, text=' 8 ', fg='black', bg='red',  
                  command=lambda: press(8), height=1, width=7)  
button8.grid(row=4, column=1)
```

```
button9 = Button(gui, text=' 9 ', fg='black', bg='red',  
                  command=lambda: press(9), height=1, width=7)  
button9.grid(row=4, column=2)
```

```
button0 = Button(gui, text=' 0 ', fg='black', bg='red',  
                  command=lambda: press(0), height=1, width=7)  
button0.grid(row=5, column=0)
```

```
plus = Button(gui, text=' + ', fg='black', bg='red',  
               command=lambda: press("+"), height=1, width=7)  
plus.grid(row=2, column=3)
```

```
minus = Button(gui, text=' - ', fg='black', bg='red',  
                command=lambda: press("-"), height=1, width=7)  
minus.grid(row=3, column=3)
```

```
multiply = Button(gui, text=' * ', fg='black', bg='red',  
                  command=lambda: press("*"), height=1, width=7)  
multiply.grid(row=4, column=3)
```

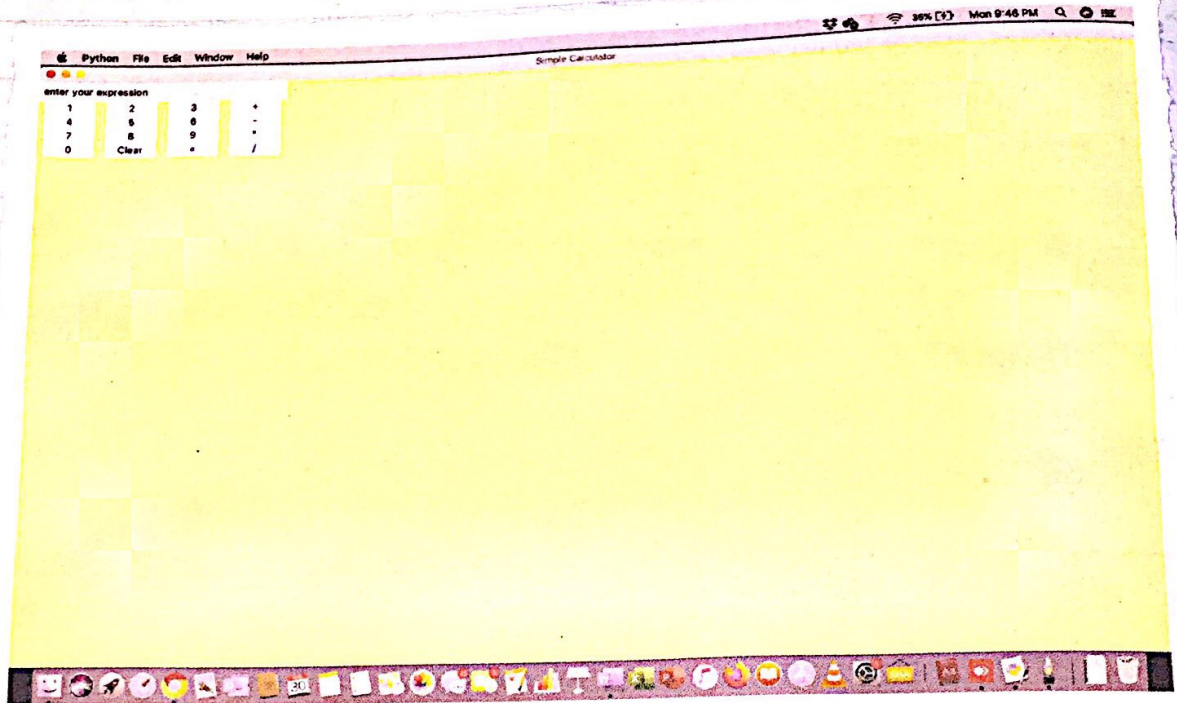
```
divide = Button(gui, text=' / ', fg='black', bg='red',  
                command=lambda: press("/"), height=1, width=7)  
divide.grid(row=5, column=3)
```

```
equal = Button(gui, text=' = ', fg='black', bg='red',  
               command=equalpress, height=1, width=7)  
equal.grid(row=5, column=2)
```

```
clear = Button(gui, text='Clear', fg='black', bg='red',  
               command=clear, height=1, width=7)  
clear.grid(row=5, column='1')  
gui.mainloop()
```



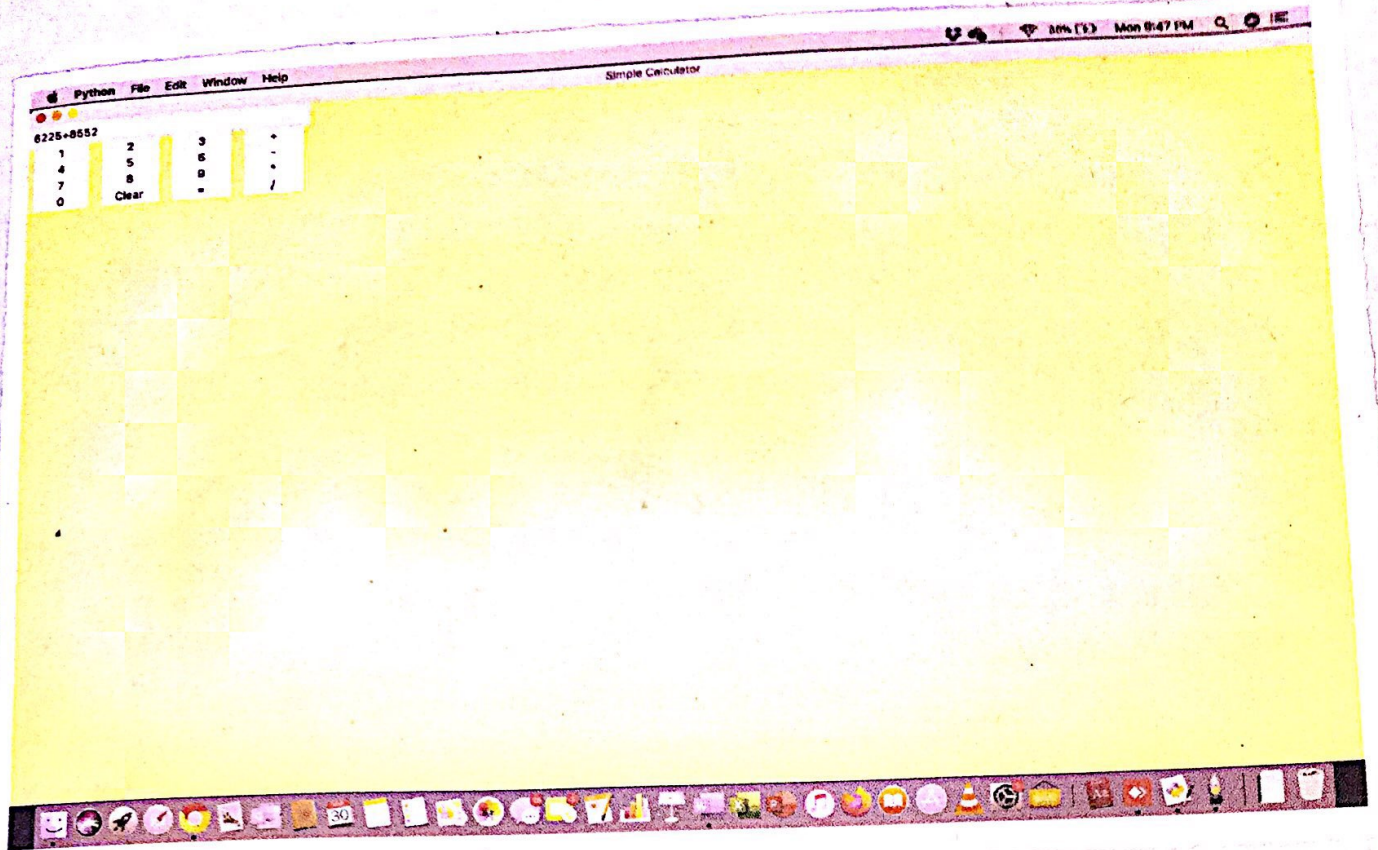
74  
T.) Home Page:- Enter your Expression.



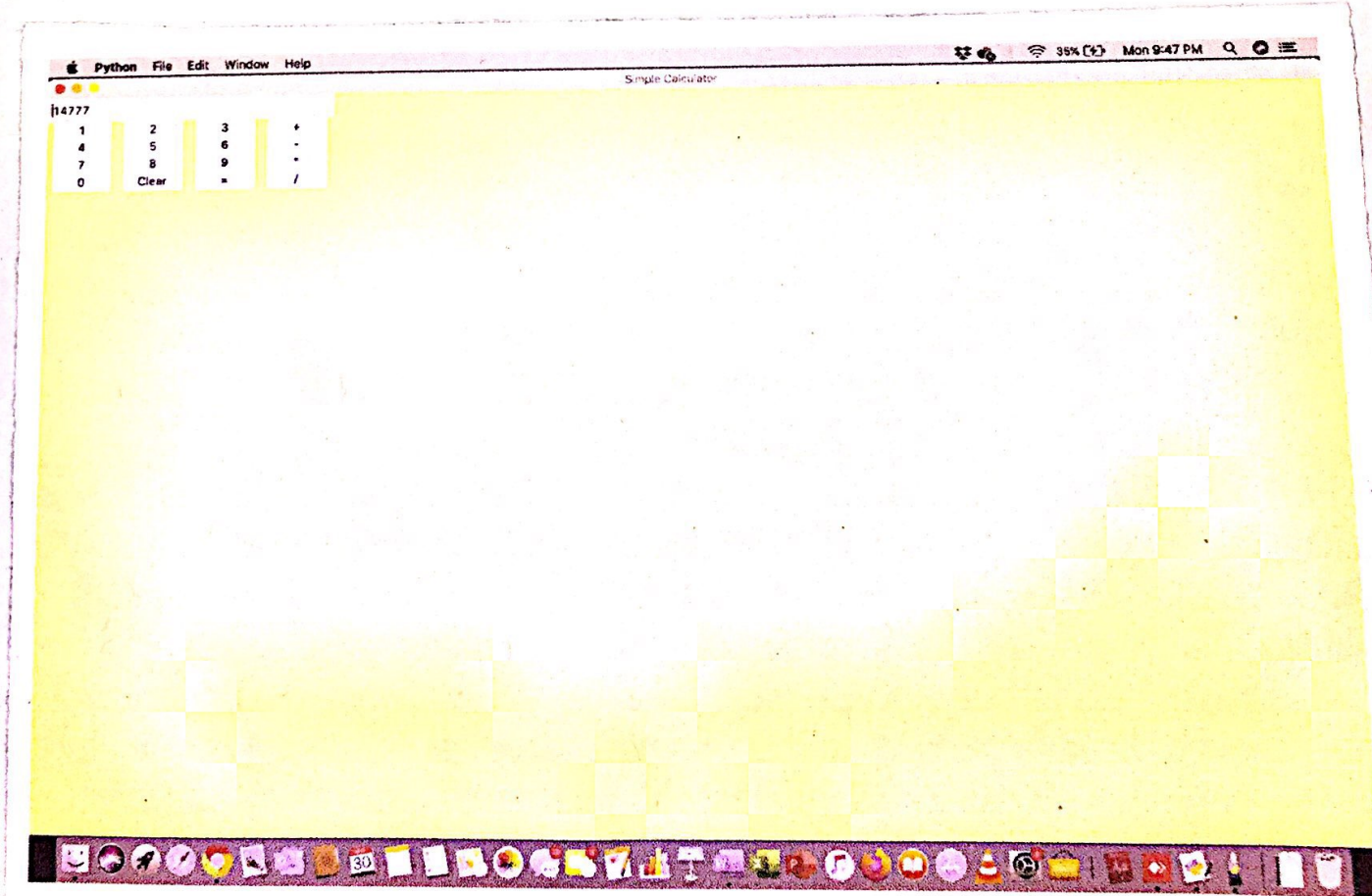


1) Addition cg:)

48

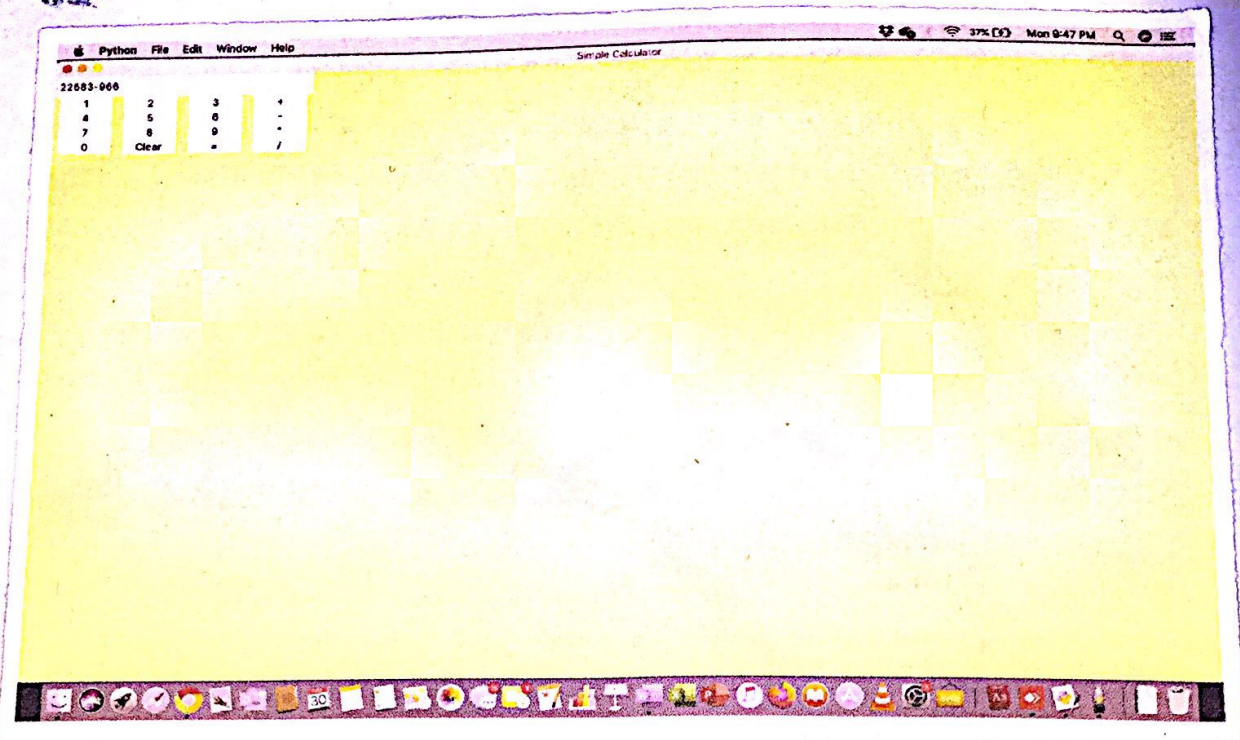


Addition: Result = 14777.

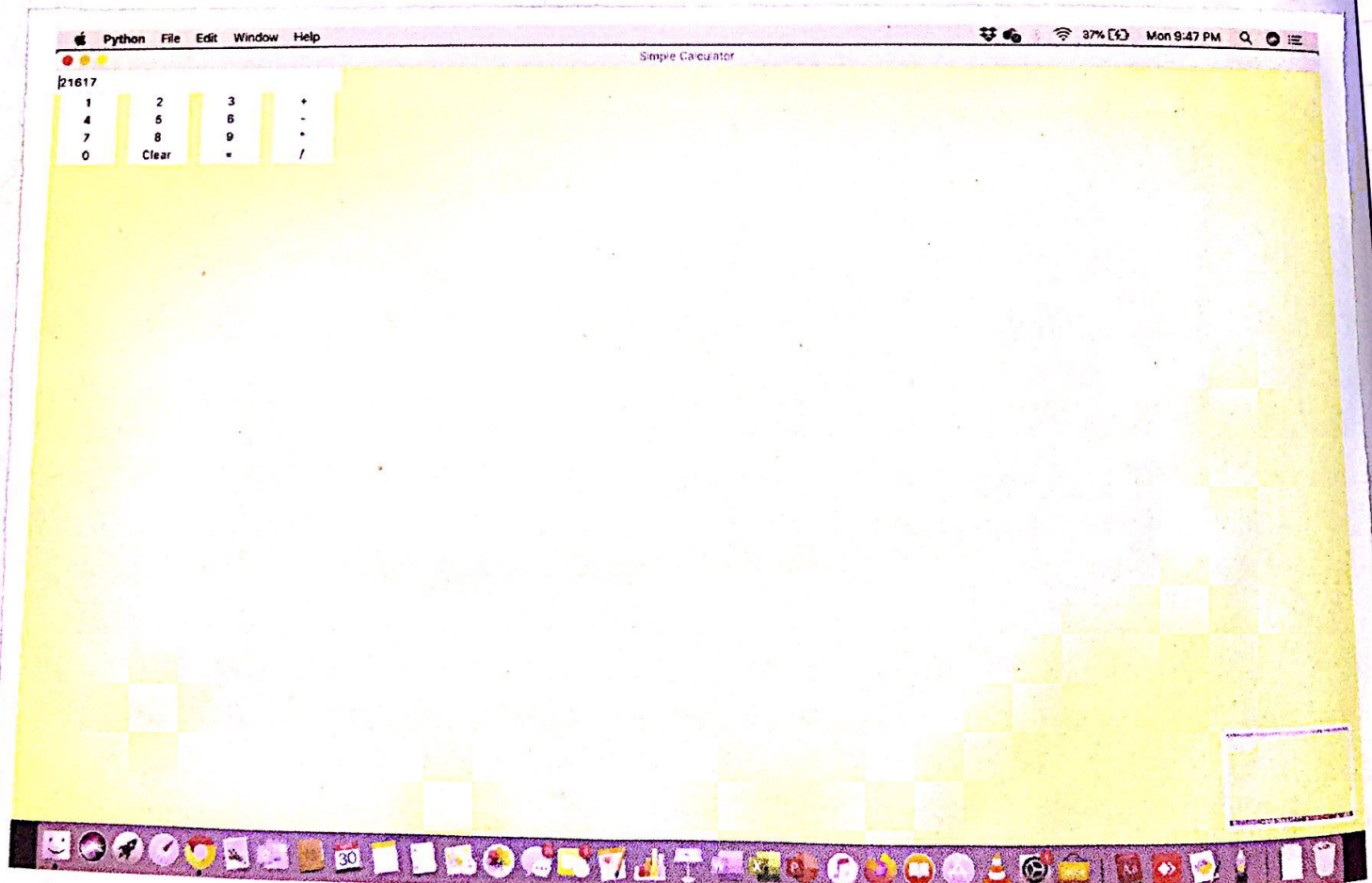




III.) Subtraction Eg.) Question:  $22583 - 966$



Result = 21617





Aim: To develop real life applications  
Using Database.

```
>>> import os,sqlite3
>>> conn=sqlite3.connect
>>> conn=sqlite3.connect("Shoes.db")
>>> cur=conn.cursor()
>>> cur.execute('create table shoe(Name char,Model_no int,Colour char,Size int)')
<sqlite3.Cursor object at 0x1081473b0>
>>> cur.execute('insert into shoe values("Nike Air Jordan",879898,"blue",10),("adidas
jogger",767638,"black",9)')
<sqlite3.Cursor object at 0x1081473b0>
>>> cur.execute('Select*from shoe')
<sqlite3.Cursor object at 0x1081473b0>
>>> print(cur.fetchall())
[('Nike Air Jordan', 879898, 'blue', 10), ('adidas jogger', 767638, 'black', 9)]
>>> cur.execute('insert into shoe values("Puma Roma",738928,"white",10),("Air Jordan 7
retro",398598,"grey",9)')
<sqlite3.Cursor object at 0x1081473b0>
>>> cur.execute('Select*from shoe')
<sqlite3.Cursor object at 0x1081473b0>
>>> print(cur.fetchall())
[('Nike Air Jordan', 879898, 'blue', 10), ('adidas jogger', 767638, 'black', 9), ('Puma Roma',
738928, 'white', 10), ('Air Jordan 7 retro', 398598, 'grey', 9)]
>>> cur.execute('UPDATE shoe SET NAME="Reebok" WHERE Model_no=738928')
<sqlite3.Cursor object at 0x1081473b0>
>>> cur.execute('ALTER TABLE shoe ADD mngf_year')
<sqlite3.Cursor object at 0x1081473b0>
>>> cur.execute('Select*from shoe')
<sqlite3.Cursor object at 0x1081473b0>
>>> print(cur.fetchall())
[('Nike Air Jordan', 879898, 'blue', 10, None), ('adidas jogger', 767638, 'black', 9, None),
('Reebok', 738928, 'white', 10, None), ('Air Jordan 7 retro', 398598, 'grey', 9, None)]
>>> conn.commit()
>>> cur.execute(DROP TABLE shoe)
```