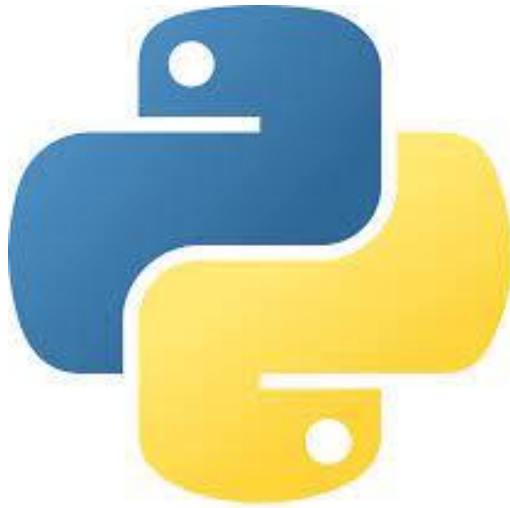


Python Project:



Project Name: Basic Calculator (Using GUI)

Name: SAPTARSHI NATH

Course: Python Programming

Project Duration: 7hrs

Faculty Name: ARINDOM GHOSH

Project Overview:

OS USED: - Windows

This project can be used as a basic form of a calculator with basic operation including addition, subtraction, multiplication and division between 2 numbers.

The programme on running will open an interface to take input for two numbers and it is followed by the buttons for the desired operation we need to perform within the two numbers. On entering the number and on clicking the required button we get our required result and we can run the calculator till we want and if we wish to exit the calculator just have to press the quit button and then confirm by pressing 'Yes' and then we are done with the basic form of calculator using python.

Code:

```
import tkinter as tk
from tkinter import *
from tkinter import messagebox as mb

def call():
    a = mb.askquestion('Exit Application', 'Do you really want to exit')
    if a == 'yes' :
        root.destroy()
    else :
        mb.showinfo('Return', 'Returning to main application')

def add():
    num1 = float(num1_entry.get())
    num2 = float(num2_entry.get())
    result = str(num1 + num2)
    result_label.config(text="Result: "+ result)

def subtract():
    num1 = float(num1_entry.get())
    num2 = float(num2_entry.get())
    result = str(num1 - num2)
    result_label.config(text="Result: "+ result)

def multiply():
    num1 = float(num1_entry.get())
    num2 = float(num2_entry.get())
    result = str(num1 * num2)
    result_label.config(text="Result: "+ result)

def divide():
```

```
num1 = float(num1_entry.get())
num2 = float(num2_entry.get())
result = str( num1 / num2)
result_label.config(text="Result: "+ result)
root = tk.Tk()
root.title("BASIC CALCULATOR")
num1_label = tk.Label(root, text="Number 1:")
num1_entry = tk.Entry(root)
num2_label = tk.Label(root, text="Number 2:")
num2_entry = tk.Entry(root)
add1 = tk.Button(root, text="Add", command=add)
add2 = tk.Button(root, text="Substract", command=substract)
add3 = tk.Button(root, text="Multiply", command=multiply)
add4 = tk.Button(root, text="Divide", command=divide)
add5 = tk.Button(root, text="Quit", command=call)
result_label = tk.Label(root, text="")
num1_label.grid(row=0, column=0, sticky="e")
num1_entry.grid(row=0, column=1)
num2_label.grid(row=1, column=0, sticky="e")
num2_entry.grid(row=1, column=1)
add1.grid(row=2, column=2, columnspan=2, pady=10)
add2.grid(row=2, column=4, columnspan=2, pady=10)
add3.grid(row=2, column=10, columnspan=2, pady=10)
add4.grid(row=2, column=15, columnspan=2, pady=10)
add5.grid(row=2, column=20, columnspan=2, pady=10)
result_label.grid(row=3, column=0, columnspan=2)

root.mainloop()
```

Output:

OUTPUT INTERFACE:

BASIC CALCULATOR

Number 1:

Number 2:

Add Subtract Multiply Divide Quit

Using Operations with examples:

Add operation:

BASIC CALCULATOR

Number 1: 47

Number 2: 54

Add Subtract Multiply Divide Quit

Result: 101.0

BASIC CALCULATOR

Number 1: 524456

Number 2: 216779

Add Subtract Multiply Divide Quit

Result: 741235.0

BASIC CALCULATOR


Number 1: 457

Number 2: 1000

Add Subtract Multiply Divide Quit

Result: 1457.0

Subtract operation:

 BASIC CALCULATOR


Number 1: 94

Number 2: 87

Add Subtract Multiply Divide Quit

Result: 7.0

Negative!!!!!!

 BASIC CALCULATOR


Number 1: 984

Number 2: 987

Add Subtract Multiply Divide Quit

Result: -3.0

Multiplication operation:


 BASIC CALCULATOR

Number 1: 27

Number 2: 12

Add Subtract Multiply Divide Quit

Result: 324.0

 BASIC CALCULATOR


Number 1: 27

Number 2: -67

Add Subtract Multiply Divide Quit

Result: -1809.0

Division operation:


 BASIC CALCULATOR

Number 1:

Number 2:

Add Subtract Multiply Divide Quit

Result: 9.0


 BASIC CALCULATOR

Number 1:

Number 2:

Add Subtract Multiply Divide Quit

Result: 3.3333333333333335

 BASIC CALCULATOR

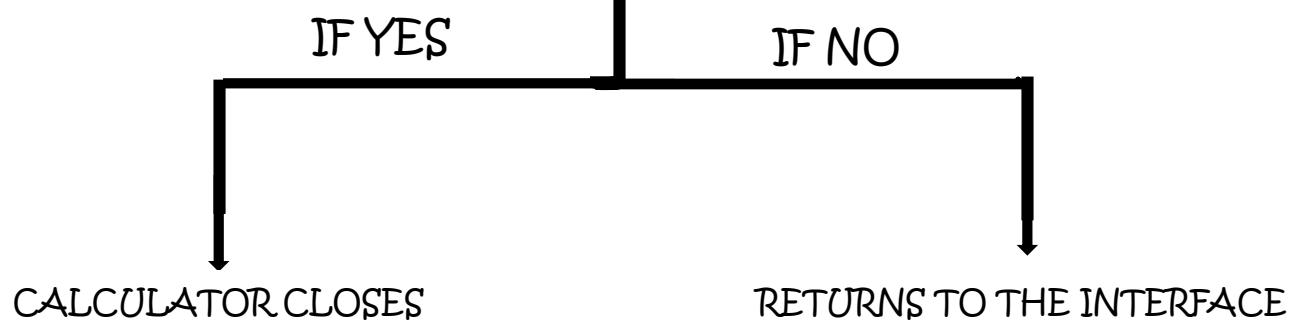
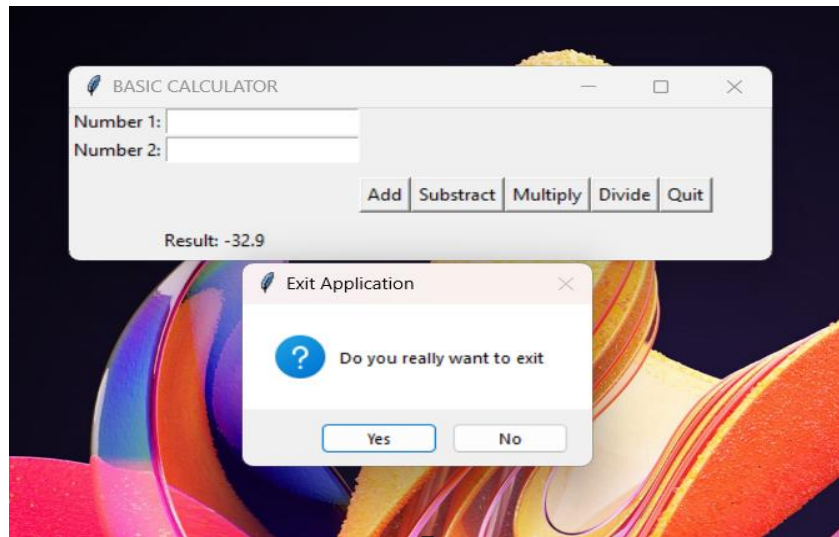
Number 1:

Number 2:

Add Subtract Multiply Divide Quit

Result: -32.9

Quit operation:



Conclusion:

Tkinter is excellent for small, quick GUI applications, and since it runs on more platforms than any other Python GUI toolkit, it is a good choice where portability is the prime concern.

It's fair to say that almost anything that can be done using the C language and Tk can be done using Python and Tkinter. One example is the Python megawidgets (PMW) package which is a pure Python package that creates an excellent widget set by building on the core Tkinter widgets.

I am really thankful to my respected Arindom Sir for supporting me and giving all the required ideas which is used for this project.