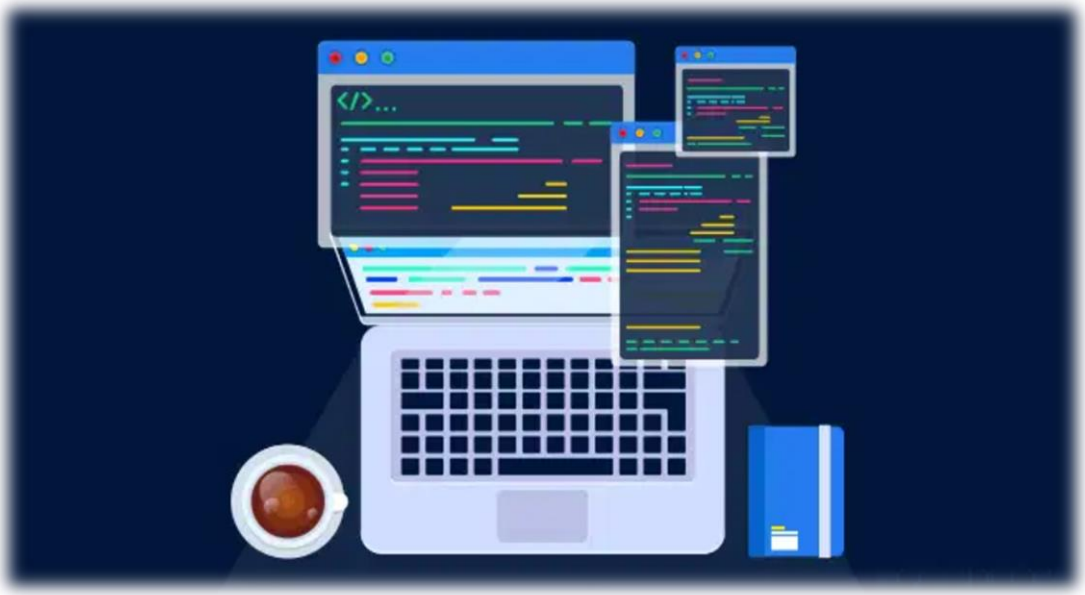
Kingdom of Saudi Arabia
Ministry of Education
College of computer
Department of Information Technology

المملكة العربية السعودية
وزارة التعليم
كلية الحاسب
قسم تقنية المعلومات

Object Oriented Programming II IT-315

Project



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Python | Simple GUI calculator using Tkinter

(CODE)

```
from tkinter import *


expression = ""


def press(num):
    # point out the global expression variable
    global expression

    # concatenation of string
    expression = expression + str(num)

    # update the expression by using set method
    equation.set(expression)


# Function to evaluate the final expression
def equalpress():

    try:

        global expression


        total = str(eval(expression))

        equation.set(total)


        expression = ""

    # if error is generate then handle
    # by the except block
    except:

        equation.set(" error ")
        expression = ""


# Function to clear the contents
# of text entry box
def clear():
    global expression
    expression = ""
    equation.set("")
```

```
# Driver code
if __name__ == "__main__":
    # create a GUI window
    gui = Tk()

    # set the background colour of GUI window
    gui.configure(background="light green")

    # set the title of GUI window
    gui.title("Simple Calculator")

    # set the configuration of GUI window
    gui.geometry("265x125")

    # StringVar() is the variable class
    # we create an instance of this class
    equation = StringVar()

    # create the text entry box for
    # showing the expression .
    expression_field = Entry(gui, textvariable=equation)

    # grid method is used for placing
    # the widgets at respective positions
    # in table like structure .
    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)
```

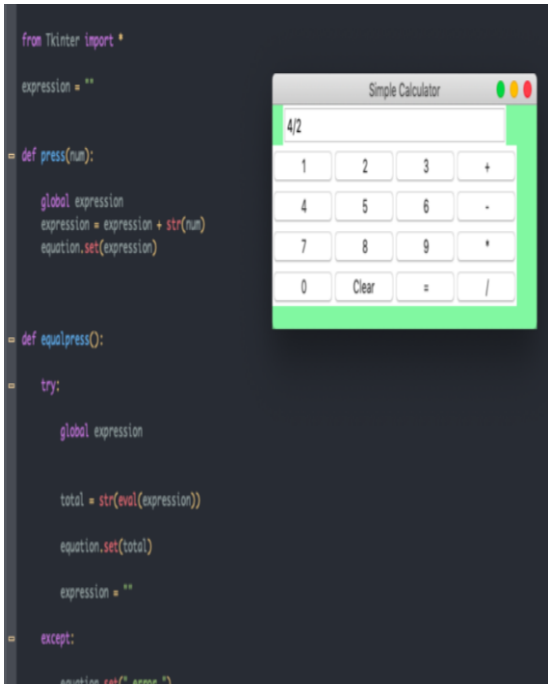
```
    button4 = Button(gui, text=' 4 ', fg='black',
bg='red',
                     command=lambda: press(4), height=1,
width=7)
    button4.grid(row=3, column=0)

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

    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')

    # start the GUI
    gui.mainloop()
```

(Implementation)


from Tkinter import *
expression = ""
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:
Simple Calculator
4-8
1 2 3 +
4 5 6 -
7 8 9 *
0 Clear = /


from Tkinter import *
expression = ""
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:
Simple Calculator
-4
1 2 3 +
4 5 6 -
7 8 9 *
0 Clear = /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equation.set(expression)
def equalpress():
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expression = ""
except:
Simple Calculator
4/2
1 2 3 +
4 5 6 -
7 8 9 *
0 Clear = /


from Tkinter import *
expression = ""
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except:
Simple Calculator
2
1 2 3 +
4 5 6 -
7 8 9 *
0 Clear = /