**Simple Calculator – Stepwise building of the Python Code**

**We are adding the respective button in a calculator and positioning the same**

##from tkinter import \*

##win = Tk()

##win.title("Simple Calculator")

##

##mydata = Entry(win, width = 35, borderwidth = 5)

##mydata.grid(row = 0, column = 0, columnspan = 3, padx = 10, pady = 10)

####columnspan is 3 here because we want the Entry widget to be spread across the 3 columns we are planning to use to display 3 buttons in a row as seen below:

A screenshot of a calculator

AI-generated content may be incorrect.

##def bclick():

## return

##

###define necessary buttons

##b0 = Button(win, text = "0", padx=40, pady=20, command=bclick)

##b1 = Button(win, text = "1", padx=40, pady=20, command=bclick)

##b2 = Button(win, text = "2", padx=40, pady=20, command=bclick)

##b3 = Button(win, text = "3", padx=40, pady=20, command=bclick)

##b4 = Button(win, text = "4", padx=40, pady=20, command=bclick)

##b5 = Button(win, text = "5", padx=40, pady=20, command=bclick)

##b6 = Button(win, text = "6", padx=40, pady=20, command=bclick)

##b7 = Button(win, text = "7", padx=40, pady=20, command=bclick)

##b8 = Button(win, text = "8", padx=40, pady=20, command=bclick)

##b9 = Button(win, text = "9", padx=40, pady=20, command=bclick)

##badd = Button(win, text = "+", padx=39, pady=20, command=bclick)

##beq = Button(win, text = "=", padx=91, pady=20, command=bclick)

##bclr = Button(win, text = "Clear", padx=79, pady=20, command = bclick)

##

##

###put buttons on the screen as seen on a regular calculator

##

##b1.grid(row = 3, column = 0)

##b2.grid(row = 3, column = 1)

##b3.grid(row = 3, column = 2)

##

##b4.grid(row = 2, column = 0)

##b5.grid(row = 2, column = 1)

##b6.grid(row = 2, column = 2)

##

##b7.grid(row = 1, column = 0)

##b8.grid(row = 1, column = 1)

##b9.grid(row = 1, column = 2)

##

##b0.grid(row = 4, column = 0)

##bclr.grid(row = 4, column = 1, columnspan = 2)

####here columnspan is 2 because the clear button spread across 2 columns that is column 1 and column 2

##badd.grid(row = 5, column =0)

##beq.grid(row = 5, column = 1, columnspan = 2)

##

##

##win.mainloop()

**#### Here we are passing the corresponding number on the click of a button to the function which will use the button value(that is the number) for calcualtions or just for an action such as clear, equal to, or add 2 numbers.**

#we cannot pass parameter through functions written against **command**

#to pass a parameter we use Lambda function

#make the following changes

##from tkinter import \*

##win = Tk()

##win.title("Simple Calculator")

##

##mydata = Entry(win, width = 35, borderwidth = 5)

##mydata.grid(row = 0, column = 0, columnspan = 3, padx = 10, pady = 10)

##

##

###to insert the number we are clicking on the calculator

##

##def bclick(number):

##

## mydata.insert(0,number) #insert the number clicked at position 0 in the Entry

### run this - the output will be as you press a number it will be inserted before the

### previous number that is if we press 2 after 1 it will be seen as 21 and not 12

##

##b0 = Button(win, text = "0", padx=40, pady=20, command=lambda:bclick(0))

###lambda is used to pass a value to the function otherwise the role is different if we use **()** as seen in the earlier **code of Button Widget**

##**lambda function**: An anonymous(does not have a name) function written in a **single line.**

##b1 = Button(win, text = "1", padx=40, pady=20, command=lambda:bclick(1))

##b2 = Button(win, text = "2", padx=40, pady=20, command=lambda:bclick(2))

##b3 = Button(win, text = "3", padx=40, pady=20, command=lambda:bclick(3))

##b4 = Button(win, text = "4", padx=40, pady=20, command=lambda:bclick(4))

##b5 = Button(win, text = "5", padx=40, pady=20, command=lambda:bclick(5))

##b6 = Button(win, text = "6", padx=40, pady=20, command=lambda:bclick(6))

##b7 = Button(win, text = "7", padx=40, pady=20, command=lambda:bclick(7))

##b8 = Button(win, text = "8", padx=40, pady=20, command=lambda:bclick(8))

##b9 = Button(win, text = "9", padx=40, pady=20, command=lambda:bclick(9))

##badd = Button(win, text = "+", padx=39, pady=20, command=lambda:bclick())

##beq = Button(win, text = "=", padx=91, pady=20, command=lambda:bclick())

##bclr = Button(win, text = "Clear", padx=79, pady=20, command = lambda:bclick())

##

##b1.grid(row = 3, column = 0)

##b2.grid(row = 3, column = 1)

##b3.grid(row = 3, column = 2)

##

##b4.grid(row = 2, column = 0)

##b5.grid(row = 2, column = 1)

##b6.grid(row = 2, column = 2)

##

##b7.grid(row = 1, column = 0)

##b8.grid(row = 1, column = 1)

##b9.grid(row = 1, column = 2)

##

##b0.grid(row = 4, column = 0)

##bclr.grid(row = 4, column = 1, columnspan = 2)

##

##badd.grid(row = 5, column =0)

##beq.grid(row = 5, column = 1, columnspan = 2)

##

##

##win.mainloop()

##############################################

##from tkinter import \*

##win = Tk()

##win.title("Simple Calculator")

##

##mydata = Entry(win, width = 35, borderwidth = 5)

##mydata.grid(row = 0, column = 0, columnspan = 3, padx = 10, pady = 10

##

###to insert the new number we are clicking on the calculator

###to clear the previously entered data(use delete() function) and then append the second new number that is clicked

##

##def bclick(number):

## curr = mydata.get()

## mydata.delete(0,END)

## mydata.insert(0,str(curr) + str(number))

##

##b0 = Button(win, text = "0", padx=40, pady=20, command=lambda:bclick(0))

##b1 = Button(win, text = "1", padx=40, pady=20, command=lambda:bclick(1))

##b2 = Button(win, text = "2", padx=40, pady=20, command=lambda:bclick(2))

##b3 = Button(win, text = "3", padx=40, pady=20, command=lambda:bclick(3))

##b4 = Button(win, text = "4", padx=40, pady=20, command=lambda:bclick(4))

##b5 = Button(win, text = "5", padx=40, pady=20, command=lambda:bclick(5))

##b6 = Button(win, text = "6", padx=40, pady=20, command=lambda:bclick(6))

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##b1.grid(row = 3, column = 0)

##b2.grid(row = 3, column = 1)

##b3.grid(row = 3, column = 2)

##

##b4.grid(row = 2, column = 0)

##b5.grid(row = 2, column = 1)

##b6.grid(row = 2, column = 2)

##

##b7.grid(row = 1, column = 0)

##b8.grid(row = 1, column = 1)

##b9.grid(row = 1, column = 2)

##

##b0.grid(row = 4, column = 0)

##bclr.grid(row = 4, column = 1, columnspan = 2)

##

##badd.grid(row = 5, column =0)

##beq.grid(row = 5, column = 1, columnspan = 2)

##

##

##win.mainloop()

###############################################

from tkinter import \*

win = Tk()

win.title("Simple Calculator")

mydata = Entry(win, width = 35, borderwidth = 5)

mydata.grid(row = 0, column = 0, columnspan = 3, padx = 10, pady = 10)

def bclick(number):

curr = mydata.get()

mydata.delete(0,END)

mydata.insert(0,str(curr) + str(number))

# add funcitons for all buttons

def bclear():

mydata.delete(0,END)

def badd():

fnum = mydata.get()

global fn

fn = int(fnum)

mydata.delete(0,END)

def bequal():

snum = mydata.get()

mydata.delete(0,END)

mydata.insert(0, fn + int(snum))

b0 = Button(win, text = "0", padx=40, pady=20, command=lambda:bclick(0))

#lambda is used to pass a va;ue to the function otherwise it is an error to use () as seen earlier

b1 = Button(win, text = "1", padx=40, pady=20, command=lambda:bclick(1))

b2 = Button(win, text = "2", padx=40, pady=20, command=lambda:bclick(2))

b3 = Button(win, text = "3", padx=40, pady=20, command=lambda:bclick(3))

b4 = Button(win, text = "4", padx=40, pady=20, command=lambda:bclick(4))

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b9 = Button(win, text = "9", padx=40, pady=20, command=lambda:bclick(9))

badd = Button(win, text = "+", padx=39, pady=20, command=badd)

beq = Button(win, text = "=", padx=91, pady=20, command=bequal)

bclr = Button(win, text = "Clear", padx=79, pady=20, command = bclear)

b1.grid(row = 3, column = 0)

b2.grid(row = 3, column = 1)

b3.grid(row = 3, column = 2)

b4.grid(row = 2, column = 0)

b5.grid(row = 2, column = 1)

b6.grid(row = 2, column = 2)

b7.grid(row = 1, column = 0)

b8.grid(row = 1, column = 1)

b9.grid(row = 1, column = 2)

b0.grid(row = 4, column = 0)

bclr.grid(row = 4, column = 1, columnspan = 2)

badd.grid(row = 5, column =0)

beq.grid(row = 5, column = 1, columnspan = 2)

win.mainloop()