

# Project : CALCULATOR

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import tkinter as tk

root = tk.Tk()

root.title("Simple Calculator")

root.geometry("800x1000")

root.resizable(False, False)

expression = ""

def update_display(value):

    global expression

    expression += str(value)

    entry_var.set(expression)

def clear_display():

    global expression

    expression = ""

    entry_var.set("")

def calculate():

    global expression

    try:

        result = str(eval(expression))

        entry_var.set(result)

        expression = result

    except:

        entry_var.set("Error")

        expression = ""
```

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def backspace():
    global expression
    expression = expression[:-1]
    entry_var.set(expression)

entry_var = tk.StringVar()

entry = tk.Entry(root, textvariable=entry_var, font=("Arial", 24), justify="right", bd=10,
relief=tk.RIDGE)

entry.pack(fill="both", ipadx=8, ipady=15, padx=10, pady=10)

buttons = [
    ('C', clear_display), ('←', backspace), ('%', lambda: update_display('%')), ('/', lambda:
update_display('/')),

    ('7', lambda: update_display(7)), ('8', lambda: update_display(8)), ('9', lambda:
update_display(9)), ('*', lambda: update_display('*')),

    ('4', lambda: update_display(4)), ('5', lambda: update_display(5)), ('6', lambda:
update_display(6)), ('-', lambda: update_display('-')),

    ('1', lambda: update_display(1)), ('2', lambda: update_display(2)), ('3', lambda:
update_display(3)), ('+', lambda: update_display('+')),

    ('0', lambda: update_display(0)), ('.', lambda: update_display('.')), ('=', calculate)
]

btn_frame = tk.Frame(root)

btn_frame.pack()

row = 0

col = 0

for text, command in buttons:

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if text == '=':

    btn = tk.Button(btn_frame, text=text, width=20, height=2, font=("Arial", 14),
command=command, bg="#4caf50", fg="white")

    btn.grid(row=row, column=col, columnspan=2, padx=5, pady=5, sticky="nsew")

    col += 2

else:

    btn = tk.Button(btn_frame, text=text, width=6, height=2, font=("Arial", 14),
command=command)

    btn.grid(row=row, column=col, padx=5, pady=5, sticky="nsew")

    col += 1

if col > 3:

    col = 0

    row += 1

root.mainloop()
```