

Mini project

Develop a desktop application - Basic arithmetic calculator which performs addition, subtraction, multiplication, division and mod operation using GUI.

Code:

```
import tkinter as tk
```

```
class Calculator:
```

```
    def __init__(self, master):
```

```
        self.master = master
```

```
        master.title("Basic Calculator")
```

```
        # Create entry field to display calculations
```

```
        self.entry = tk.Entry(master, width=25, font=('Arial', 16))
```

```
        self.entry.grid(row=0, column=0, columnspan=4, pady=10)
```

```
        # Create buttons for each digit and operation
```

```
        self.create_button('7', 1, 0)
```

```
        self.create_button('8', 1, 1)
```

```
        self.create_button('9', 1, 2)
```

```
        self.create_button('+', 1, 3)
```

```
        self.create_button('4', 2, 0)
```

```
        self.create_button('5', 2, 1)
```

```
        self.create_button('6', 2, 2)
```

```
self.create_button('-', 2, 3)
self.create_button('1', 3, 0)
self.create_button('2', 3, 1)
self.create_button('3', 3, 2)
self.create_button('*', 3, 3)
self.create_button('0', 4, 0)
self.create_button('/', 4, 3)
self.create_button('C', 4, 1)
self.create_button('=', 4, 2)
```

```
def create_button(self, text, row, column):
    # Create button with specified text, and command
    button = tk.Button(self.master, text=text, font=('Arial', 16), padx=10,
pady=5,
                        command=lambda: self.button_click(text))
    button.grid(row=row, column=column)
```

```
def button_click(self, text):
    if text == '=':
        # Calculate the result and display it
        result = eval(self.entry.get())
        self.entry.delete(0, tk.END)
        self.entry.insert(0, str(result))
    elif text == 'C':
        # Clear the entry field
        self.entry.delete(0, tk.END)
    else:
```

Add the clicked button's text to the entry field

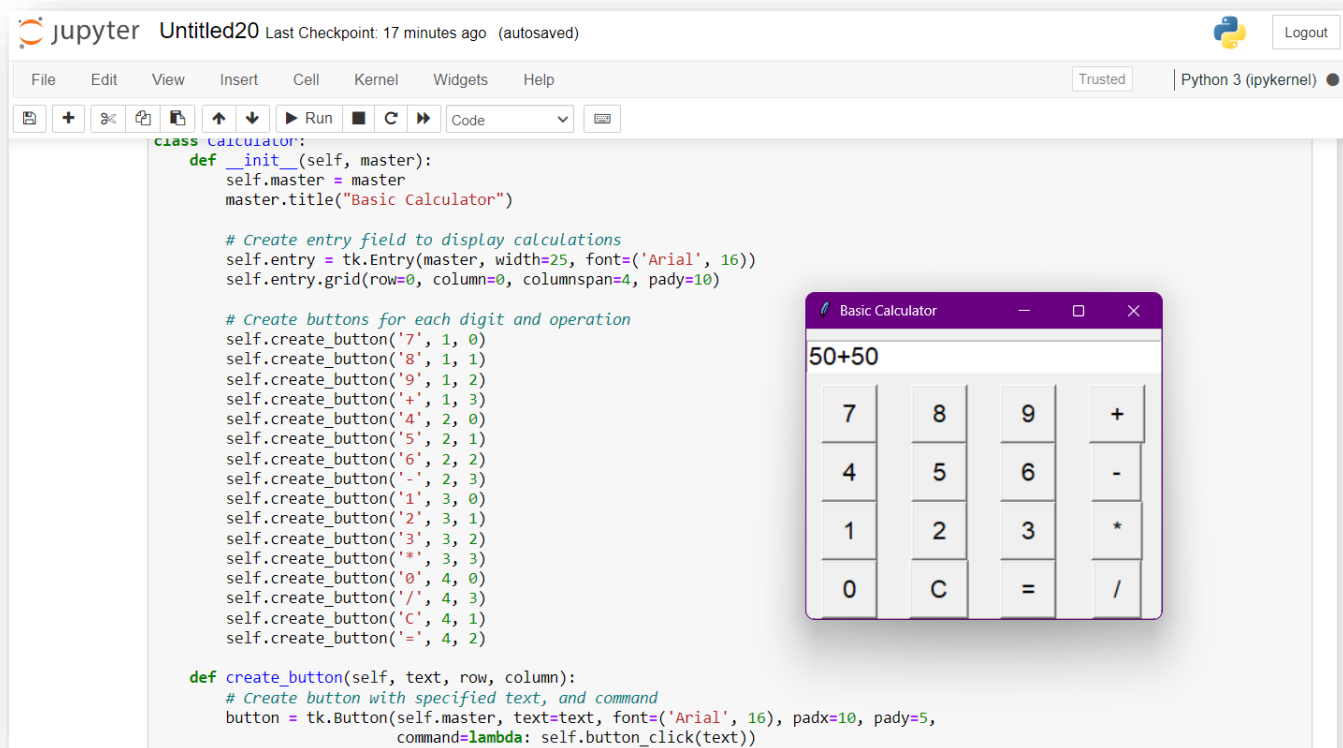
```
self.entry.insert(tk.END, text)
```

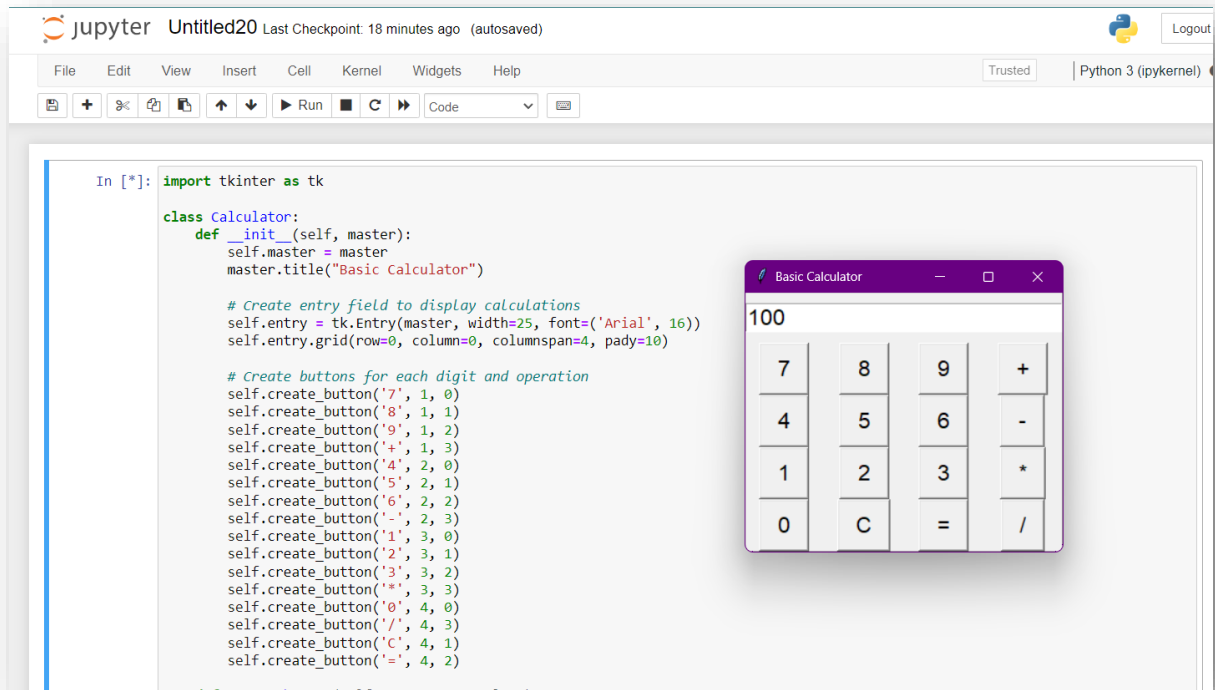
```
if __name__ == '__main__':
```

```
    root = tk.Tk()
```

```
    calc = Calculator(root)
```

```
    root.mainloop()
```





Conclusion:

Hence we developed the desktop application - Basic arithmetic calculator which performs addition, subtraction, multiplication, division and mod operation using GUI.