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# Mini Projet 1 – POO et les Modules

Captures d'écrans:

## Question 1:

calcul.py:

```
calculpy U x
src > calcul.py > ...
1 class Calcul:
2     def __init__(self, a, b) -> None:
3         self.a = a
4         self.b = b
5
6     def __verifier_numerique(self):
7         return isinstance(self.a, (float, int)) and isinstance(self.b, (float, int))
8
9     def calcul_somme(self):
10        if self.__verifier_numerique():
11            return self.a + self.b
12        else:
13            return 'Erreur : Les valeurs doivent être numériques'
14
15    def calcul_soustraction(self):
16        if self.__verifier_numerique():
17            return self.a - self.b
18        else:
19            return 'Erreur : Les valeurs doivent être numériques'
20
21    def calcul_multiplication(self):
22        if self.__verifier_numerique():
23            return self.a * self.b
24        else:
25            return 'Erreur : Les valeurs doivent être numériques'
26
27    def calcul_division(self):
28        if self.__verifier_numerique():
29            try:
30                return self.a / self.b
31            except ZeroDivisionError:
32                return 'Erreur : Division par zéro'
33        else:
34            return 'Erreur : Les valeurs doivent être numériques'
35
```

Résultat:

```
36
37 calcul = Calcul(5, 3)
38
39 print('5 + 3', calcul.calcul_somme())
40 print('5 - 3', calcul.calcul_soustraction())
41 print('5 * 3', calcul.calcul_multiplication())
42 print('5 / 3', calcul.calcul_division())
```

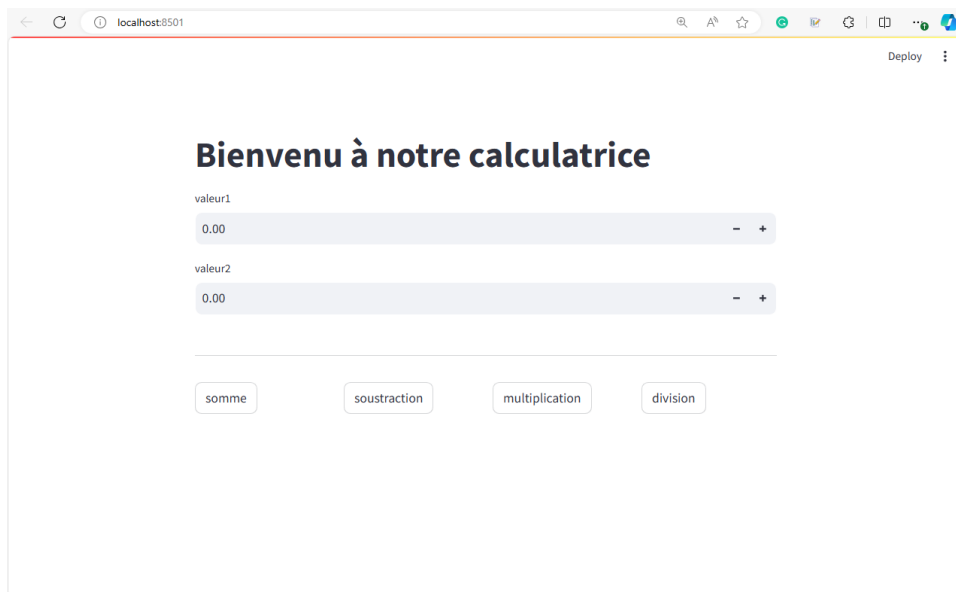
```
C Stopping...
(.venv) eoussama@E0-Desktop ~/p/g/ma-oop-python-projet-1 (main)> python3 src/calcul.py
5 + 3 8
5 - 3 2
5 * 3 15
5 / 3 1.6666666666666667
```

## Question 2:

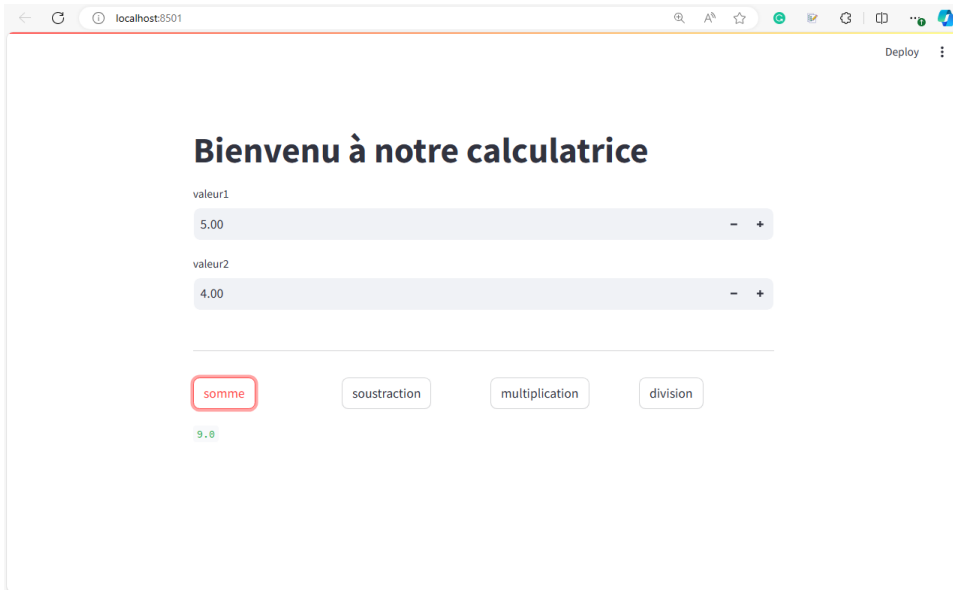
calcul\_web.py:

```
calcul_web.py x
src > calcul_web.py > main
1 import streamlit as st
2 from calcul import Calcul
3
4
5
6 def main():
7
8     st.image('./fsr-logo.png')
9     st.write('# Bienvenue à notre calculatrice')
10
11     valeur1 = st.number_input('valeur1')
12     valeur2 = st.number_input('valeur2')
13
14     mon_calc = Calcul(valeur1, valeur2)
15
16     st.divider()
17     col1, col2, col3, col4 = st.columns(4)
18
19     if col1.button('somme'):
20         col1.write(mon_calc.calcul_somme())
21
22     if col2.button('soustraction'):
23         col2.write(mon_calc.calcul_soustraction())
24
25     if col3.button('multiplication'):
26         col3.write(mon_calc.calcul_multiplication())
27
28     if col4.button('division'):
29         col4.write(mon_calc.calcul_division())
30
31 if __name__ == '__main__':
32     main()
33
```

Résultat:

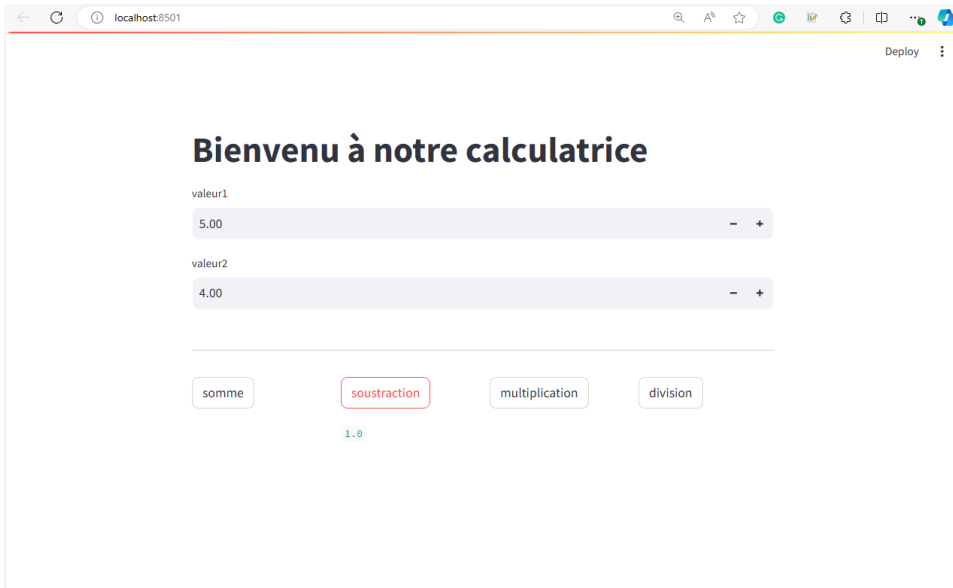


Somme :



A screenshot of a web browser window at localhost:8501. The page title is "Bienvenu à notre calculatrice". It features two input fields: "valeur1" with the value "5.00" and "valeur2" with the value "4.00". Below these fields are four buttons: "somme", "soustraction", "multiplication", and "division". The "somme" button is highlighted with a red border. Below the buttons, the result "9.0" is displayed in green text.

Soustraction :



A screenshot of a web browser window at localhost:8501. The page title is "Bienvenu à notre calculatrice". It features two input fields: "valeur1" with the value "5.00" and "valeur2" with the value "4.00". Below these fields are four buttons: "somme", "soustraction", "multiplication", and "division". The "soustraction" button is highlighted with a red border. Below the buttons, the result "1.0" is displayed in green text.

Multiplication :

A screenshot of a web browser window displaying a calculator application. The browser's address bar shows 'localhost:8501'. The page title is 'Bienvenu à notre calculatrice'. There are two input fields: 'valeur1' with the value '5.00' and 'valeur2' with the value '4.00'. Below these fields are four buttons: 'somme', 'soustraction', 'multiplication', and 'division'. The 'multiplication' button is highlighted with a red border. Below the buttons, the result '20.0' is displayed in green text.

Division :

A screenshot of a web browser window displaying the same calculator application. The browser's address bar shows 'localhost:8501'. The page title is 'Bienvenu à notre calculatrice'. There are two input fields: 'valeur1' with the value '5.00' and 'valeur2' with the value '4.00'. Below these fields are four buttons: 'somme', 'soustraction', 'multiplication', and 'division'. The 'division' button is highlighted with a red border. Below the buttons, the result '1.25' is displayed in green text.

Division par zéro :

localhost:8501

Deploy

## Bienvenu à notre calculatrice

valeur1  
5.00 - +

valeur2  
0.00 - +


somme soustraction multiplication **division**

Erreur : Division par zéro

Question 3:

localhost:8501

Deploy



## Bienvenu à notre calculatrice

valeur1  
5.00 - +

valeur2  
0.00 - +

somme soustraction multiplication division