Basic_calculator

October 31, 2024

[4]:
```
""" Basic Calculator
Concepts: Basics, functions, conditionals, loops
Task: Implement a simple calculator with functions for addition, subtraction,␣
 ↪multiplication, and division.
Goal: Focus on function definition, conditionals, loops, and error handling␣
 ↪(like division by zero).
"""
```

[4]:
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' Basic Calculator\nConcepts: Basics, functions, conditionals, loops\nTask:
Implement a simple calculator with functions for addition, subtraction,
multiplication, and division.\nGoal: Focus on function definition, conditionals,
loops, and error handling (like division by zero).\n'
```

[33]:
```
## adding function
def add(x,y):
    return x+y #return sum

#Subs function:
def sub(x,y):
    return x-y #subtracting the value of y from x.

#multiplication function:
def multiply(x,y):
    return x*y
#division function:
def div(x,y):
    if y == 0: #return error, as per task or instructions
        return "Invalid Input, denominator cann't be zero"

    else:
        return x/y

while True:

    print("Choose 1 from the below")
    print("1. addition")
    print("2. Substraction")
```

```
    print("3. Multiplication")
    print("4. Division")
    print("5. Exit")

    choice = input("Write the operation")

    if choice == "1":
        x = int(input("Enter a number"))
        y = int(input("Enter a number"))
        print(add(x,y))

    elif choice == "2":
        x = int(input("Enter a number"))
        y = int(input("Enter a number"))
        print(sub(x,y))

    elif choice == "3":
        x = int(input("Enter a number"))
        y = int(input("Enter a number"))
        print(multiply(x,y))

    elif choice == "4":
        x = int(input("Enter a number"))
        y = int(input("Enter a number"))
        print(div(x,y))

    elif choice == "5":
        break
        print("Exiting from calculator")

else:
    print("Invalid input")
```

```
Choose 1 from the below
1. addition
2. Substraction
3. Multiplication
4. Division
5. Exit

Write the operation 1
Enter a number 5
Enter a number 7

12
Choose 1 from the below
1. addition
2. Substraction
```

```
3. Multiplication
4. Division
5. Exit

Write the operation 3
Enter a number 10
Enter a number 7

70
Choose 1 from the below
1. addition
2. Substraction
3. Multiplication
4. Division
5. Exit

Write the operation 4
Enter a number 4
Enter a number 0

Invalid Input, denominator cann't be zero
Choose 1 from the below
1. addition
2. Substraction
3. Multiplication
4. Division
5. Exit

Write the operation 5
```

[36]:
```python
#2nd method by lambda function to make a calculator:

## adding function
add = lambda x,y: x+y
## subtraction
sub = lambda x,y: x-y
## Multiplication
mul = lambda x,y: x*y
## Division
div = lambda x,y: x/y if y != 0 else "denominator can't be 0"

while True:

    print("Choose 1 from the below")
    print("1. addition")
    print("2. Substraction")
    print("3. Multiplication")
    print("4. Division")
    print("5. Exit")
```

```
    choice = input("Write the operation")

    if choice == "1":
        x = int(input("Enter a number"))
        y = int(input("Enter a number"))
        print(add(x,y))

    elif choice == "2":
        x = int(input("Enter a number"))
        y = int(input("Enter a number"))
        print(sub(x,y))

    elif choice == "3":
        x = int(input("Enter a number"))
        y = int(input("Enter a number"))
        print(mul(x,y))

    elif choice == "4":
        x = int(input("Enter a number"))
        y = int(input("Enter a number"))
        print(div(x,y))

    elif choice == "5":
        break
        print("Exiting from calculator")

else:
    print("Invalid input")
```

```
Choose 1 from the below
1. addition
2. Substraction
3. Multiplication
4. Division
5. Exit

Write the operation 1
Enter a number 4
Enter a number 5

9
Choose 1 from the below
1. addition
2. Substraction
3. Multiplication
4. Division
5. Exit

Write the operation 2
```

```
Enter a number 5
Enter a number 2

3
Choose 1 from the below
1. addition
2. Substraction
3. Multiplication
4. Division
5. Exit

Write the operation 4
Enter a number 2
Enter a number 0

denominator can't be 0
Choose 1 from the below
1. addition
2. Substraction
3. Multiplication
4. Division
5. Exit

Write the operation 4
Enter a number 5
Enter a number 4

1.25
Choose 1 from the below
1. addition
2. Substraction
3. Multiplication
4. Division
5. Exit

Write the operation 5
```

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