Lab Task 1

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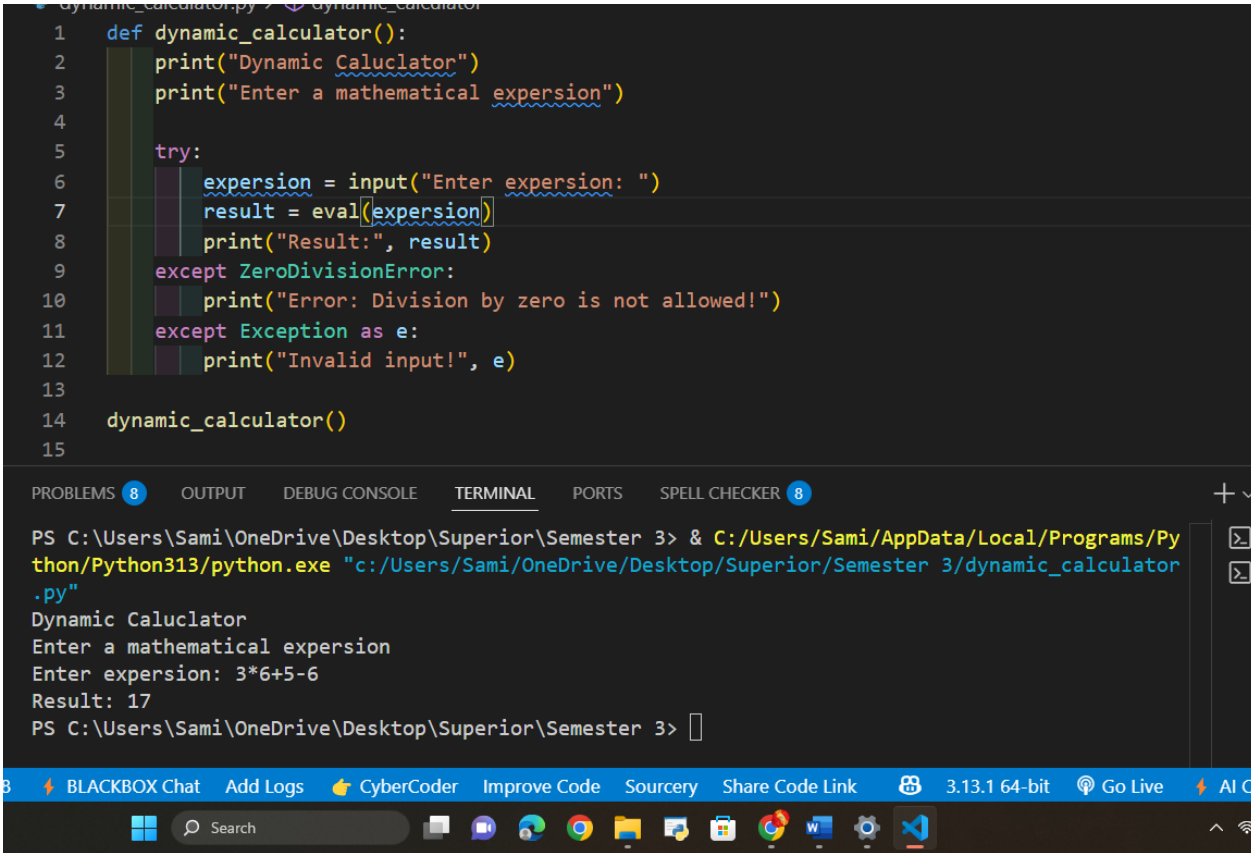

```python
def dynamic_calculator():
    print("Dynamic Caluclator")
    print("Enter a mathematical expersion")

    try:
        expersion = input("Enter expersion: ")
        result = eval(expersion)
        print("Result:", result)
    except ZeroDivisionError:
        print("Error: Division by zero is not allowed!")
    except Exception as e:
        print("Invalid input!", e)

dynamic_calculator()
```

```
PS C:\Users\Sami\OneDrive\Desktop\Superior\Semester 3> & C:/Users/Sami/AppData/Local/Programs/Py
thon/Python313/python.exe "c:/Users/Sami/OneDrive/Desktop/Superior/Semester 3/dynamic_calculator
.py"
Dynamic Caluclator
Enter a mathematical expersion
Enter expersion: 3*6+5-6
Result: 17
PS C:\Users\Sami\OneDrive\Desktop\Superior\Semester 3> 
```

The Dynamic Calculator is a simple Python-based program that allows users to enter mathematical expressions and evaluates them dynamically. It takes an arithmetic expression as input, processes it using Python’s built-in eval () function, and returns the calculated result. The program includes error handling to manage exceptions such as **division by zero**, which would otherwise cause a runtime error, and general syntax errors due to invalid inputs. This ensures a smoother user experience by providing meaningful error messages instead of abrupt crashes. The calculator supports operations like addition, subtraction, multiplication, and division, making it a basic yet effective tool for quick calculations. However, due to the use of eval(), which directly executes user input as code, it should be used cautiously in secure environments to prevent potential security risks.