

AI Assisted Coding - Lab Test 1

Q2. Multi-Stage AI Prompting (5M)

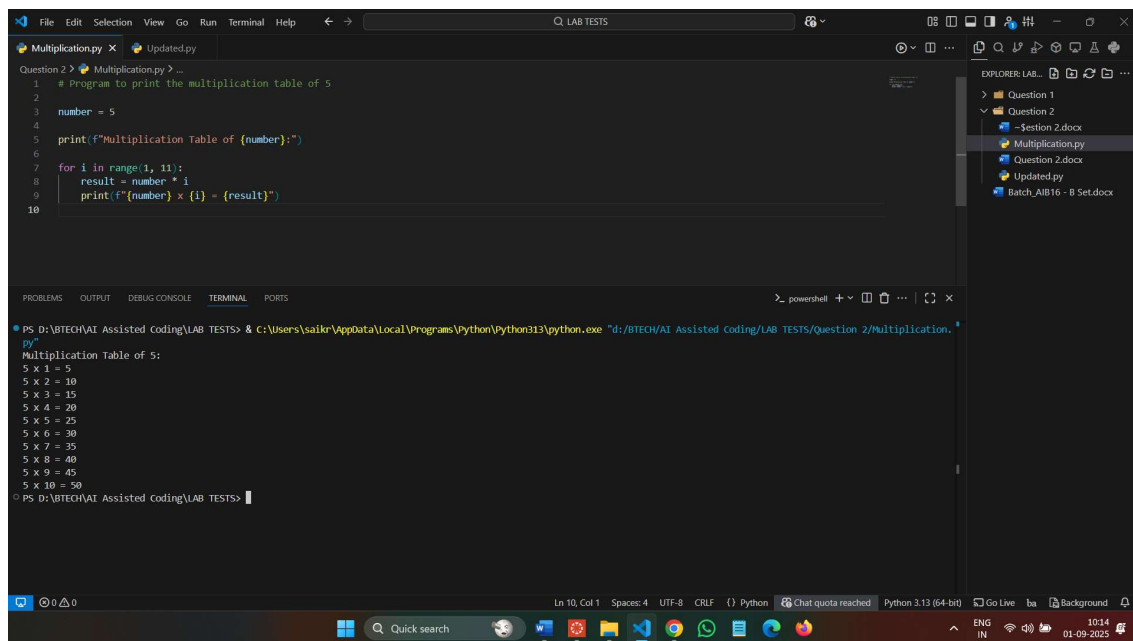
Prompt 1 :

Write a Python program that prints the multiplication table of 5

Code 1:

```
# Program to print the multiplication table of 5
number = 5
print(f"Multiplication Table of {number}:")
for i in range(1, 11):
    result = number * i
    print(f"{number} x {i} = {result}")
```

Output 1 :



The screenshot shows a Visual Studio Code editor window with a file named 'Multiplication.py'. The code in the file is as follows:

```
1 # Program to print the multiplication table of 5
2
3 number = 5
4
5 print(f"Multiplication Table of {number}:")
6
7 for i in range(1, 11):
8     result = number * i
9     print(f"{number} x {i} = {result}")
10
```

Below the code editor, the 'TERMINAL' panel is open, showing the output of the program. The command executed is:

```
PS D:\BTECH\AI Assisted Coding\LAB TESTS> & c:\Users\sakr\AppData\Local\Programs\Python\Python313\python.exe "d:/BTECH/AI Assisted Coding/LAB TESTS/Question 2/Multiplication.py"
```

The output displayed in the terminal is:

```
Multiplication Table of 5:
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
5 x 10 = 50
```

The terminal prompt is now 'PS D:\BTECH\AI Assisted Coding\LAB TESTS>'. The status bar at the bottom indicates 'Ln 10, Col 1', 'Spaces: 4', 'UTF-8', 'CRLF', and 'Python 3.13 (64-bit)'.

Prompt 2 :

Take the previous prompt and ask the user to enter any number greater than 0 and give the multiplication table according to the input

Code 2 :

```
# Program to print the multiplication table of a user-input number
```

```
# Ask the user to enter a number greater than 0
```

```
number = int(input("Enter a number greater than 0: "))
```

```
if number <= 0:
```

```
    print("Please enter a number greater than 0.")
```

```
else:
```

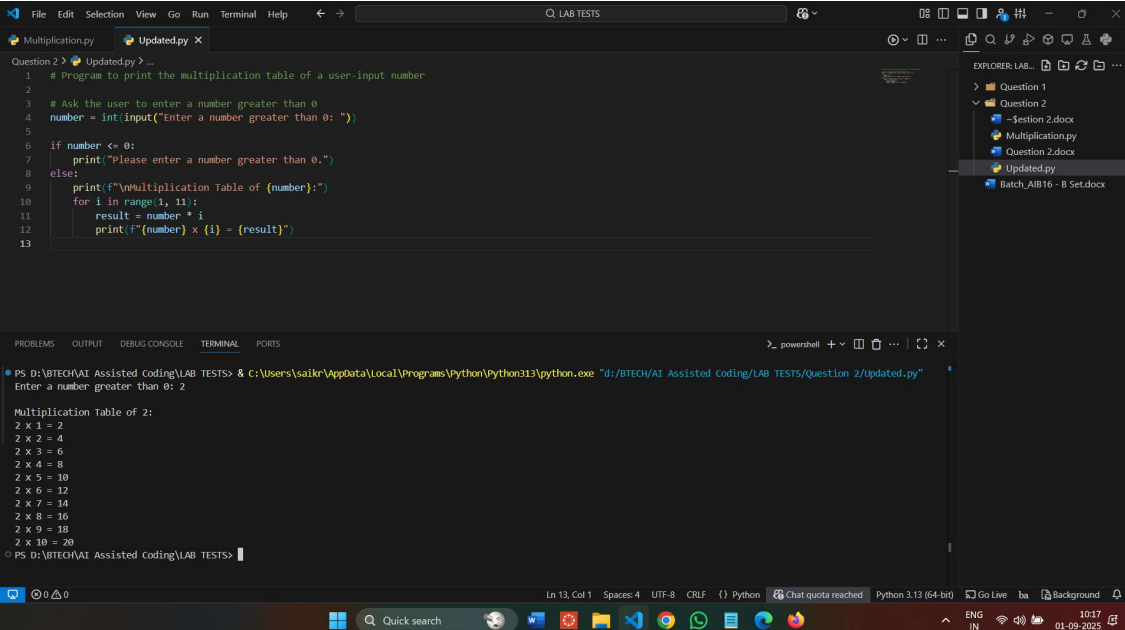
```
    print(f"\nMultiplication Table of {number}:")
```

```
    for i in range(1, 11):
```

```
        result = number * i
```

```
        print(f"{number} x {i} = {result}")
```

Output 2 :



The screenshot shows a code editor with a file named 'Updated.py' containing the Python code from the previous block. Below the code editor is a terminal window showing the execution of the program. The user has entered '2' as input, and the program has printed the multiplication table for 2, ranging from 2 x 1 to 2 x 10.

```
Question 2 >> Updated.py > ...
1 # Program to print the multiplication table of a user-input number
2
3 # Ask the user to enter a number greater than 0
4 number = int(input("Enter a number greater than 0: "))
5
6 if number <= 0:
7     print("Please enter a number greater than 0.")
8 else:
9     print(f"\nMultiplication Table of {number}:")
10    for i in range(1, 11):
11        result = number * i
12        print(f"{number} x {i} = {result}")
13
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS D:\BTECH\AI Assisted Coding\LAB TESTS> & c:\Users\saiKr\AppData\Local\Programs\Python\Python313\python.exe "d:\BTECH\AI Assisted Coding\LAB TESTS\Question 2\updated.py"
Enter a number greater than 0: 2

Multiplication Table of 2:
2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20
PS D:\BTECH\AI Assisted coding\LAB TESTS>
```

Observation :

The program asks the user to enter a number greater than 0 and prints its multiplication table from 1 to 10. It validates the input to ensure it is positive and uses a for loop to generate the table dynamically. The results are displayed in a clear number x i = result format. Overall, the code is simple, readable, and easy to modify for different numbers or ranges.