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Lab Task: 4

Subject: Software Construction and Development

Department: BSSE

Semester: 5th

Date: 4 December 2025

Task 1:

Write a function that takes a price and tax percentage and returns the final price after tax.

Code:

```
b.py      x
b.py > ...
1 def final_price(price, tax_percent):
2     return price + (price * tax_percent / 100)
3
4 print(final_price(100, 10))
5
```

Output:

The screenshot shows a terminal window with the following interface elements at the top: Problems, Output, Debug Console, Terminal (which is selected), and Ports. Below the tabs, there are two entries:

- PS C:\Users\5550\OneDrive\Desktop\Python\Labtask> python b.py
110.0
- PS C:\Users\5550\OneDrive\Desktop\Python\Labtask>

Task 2:

Make a function that accepts a number and returns its factorial.

Code

```
b.py > ...
3
4 # print(final_price(100, 10))
5
6 def factorial(n):
7     if n == 0 or n == 1:
8         return 1
9     return n * factorial(n - 1)
10
11 number = int(input("Enter a number: "))
12 print("Factorial is:", factorial(number))
```

Output:

```
Problems Output Debug Console Terminal Ports

● PS C:\Users\5550\OneDrive\Desktop\Python\Labtask> python b.py
Enter a number: 4
Factorial is: 24
○ PS C:\Users\5550\OneDrive\Desktop\Python\Labtask>
```

Task 3:

3. Write a function that accepts a temperature in Celsius and returns

- "Cold" if temp < 10
- "Warm" if 10-25
- "Hot" if > 25 Code:

```
b.py x
b.py > ...
12     # print("Factorial is:", factorial(number))
13
14 def check_temperature(temp):
15     if temp < 10:
16         return "Cold"
17     elif temp <= 25:
18         return "Warm"
19     else:
20         return "Hot"
21
22 temperature = float(input("Enter temperature in Celsius: "))
23 print(check_temperature(temperature))
```

Output:

Task 4:

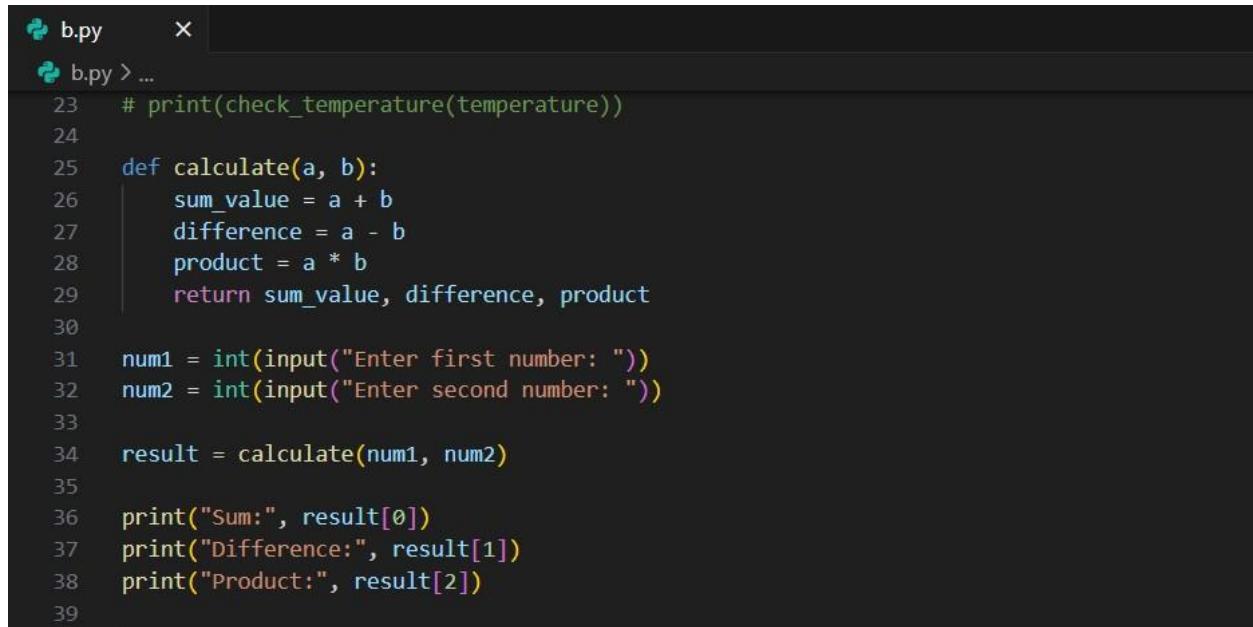
```
Problems Output Debug Console Terminal Ports

● PS C:\Users\5550\OneDrive\Desktop\Python\Labtask> python b.py
Enter temperature in Celsius: 20
Warm
○ PS C:\Users\5550\OneDrive\Desktop\Python\Labtask>
```

Create a function that takes two numbers and returns

- The sum
- The difference
- The product

Code

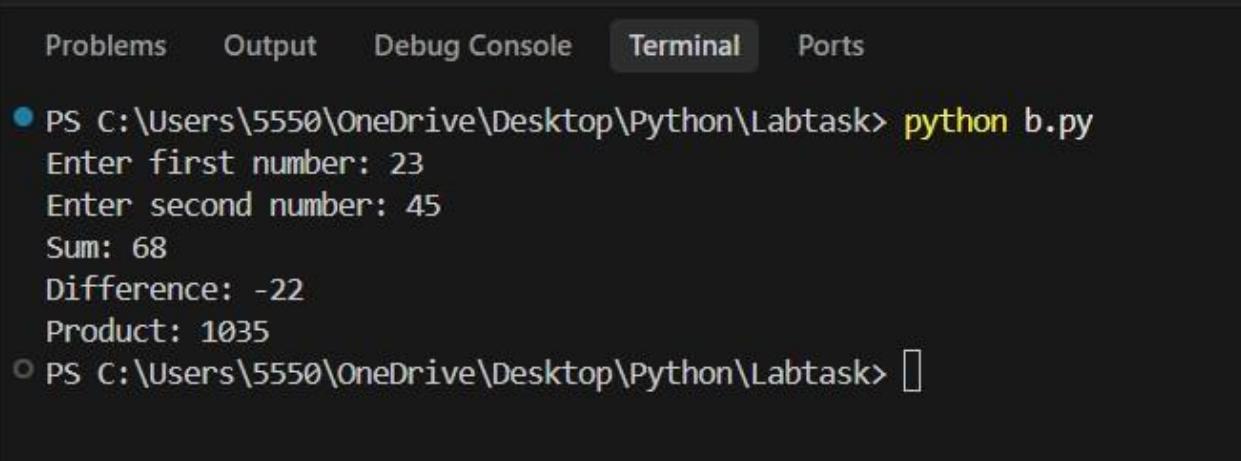


```

b.py > ...
23 # print(check_temperature(temperature))
24
25 def calculate(a, b):
26     sum_value = a + b
27     difference = a - b
28     product = a * b
29     return sum_value, difference, product
30
31 num1 = int(input("Enter first number: "))
32 num2 = int(input("Enter second number: "))
33
34 result = calculate(num1, num2)
35
36 print("Sum:", result[0])
37 print("Difference:", result[1])
38 print("Product:", result[2])
39

```

Output:

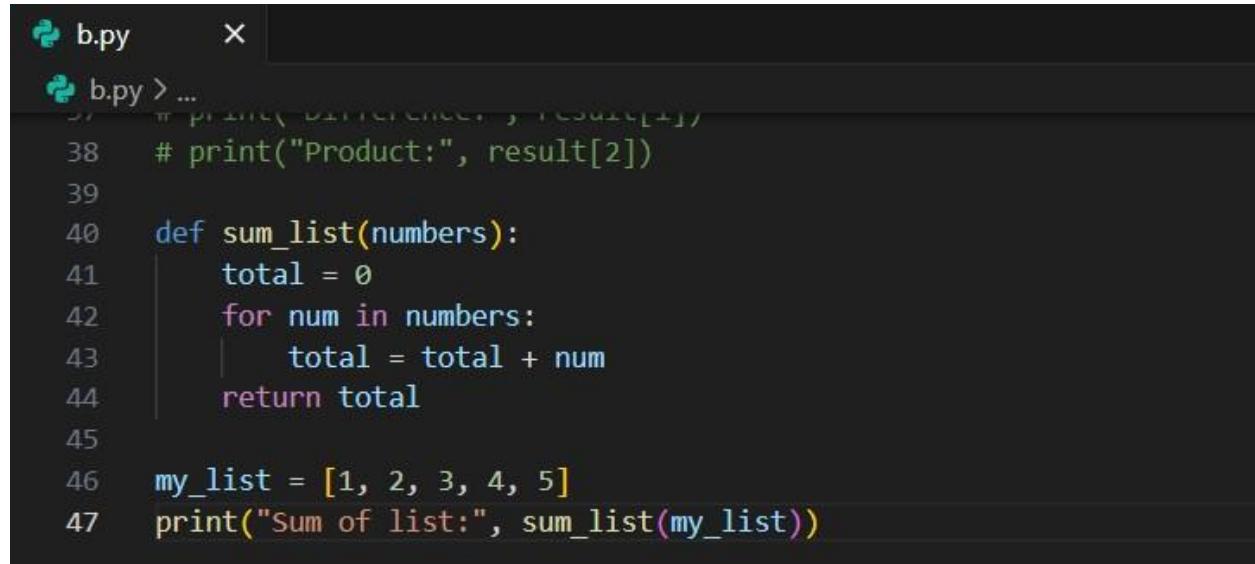


Terminal Tab	Content
Problems	None
Output	None
Debug Console	None
Terminal	PS C:\Users\5550\OneDrive\Desktop\Python\Labtask> python b.py Enter first number: 23 Enter second number: 45 Sum: 68 Difference: -22 Product: 1035
Ports	None

Task 5:

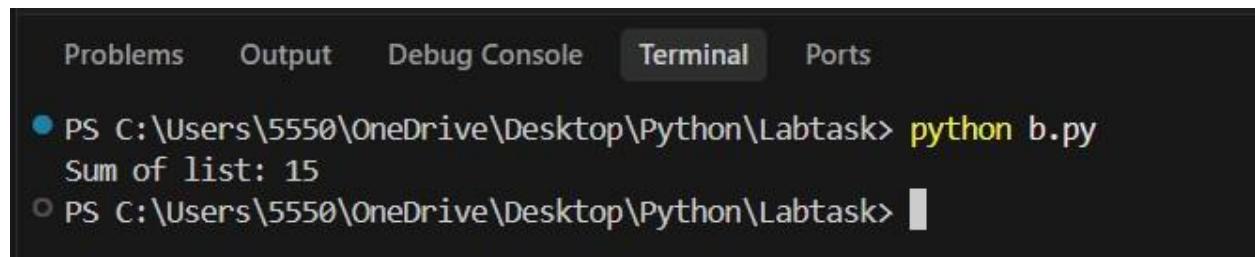
Pass the list to the function and sum all the values of the list.

Code:



```
b.py > ...
38     # print("Product:", result[2])
39
40 def sum_list(numbers):
41     total = 0
42     for num in numbers:
43         total = total + num
44     return total
45
46 my_list = [1, 2, 3, 4, 5]
47 print("Sum of list:", sum_list(my_list))
```

Output:



Problems Output Debug Console **Terminal** Ports

- PS C:\Users\5550\OneDrive\Desktop\Python\Labtask> python b.py
Sum of list: 15
- PS C:\Users\5550\OneDrive\Desktop\Python\Labtask> █