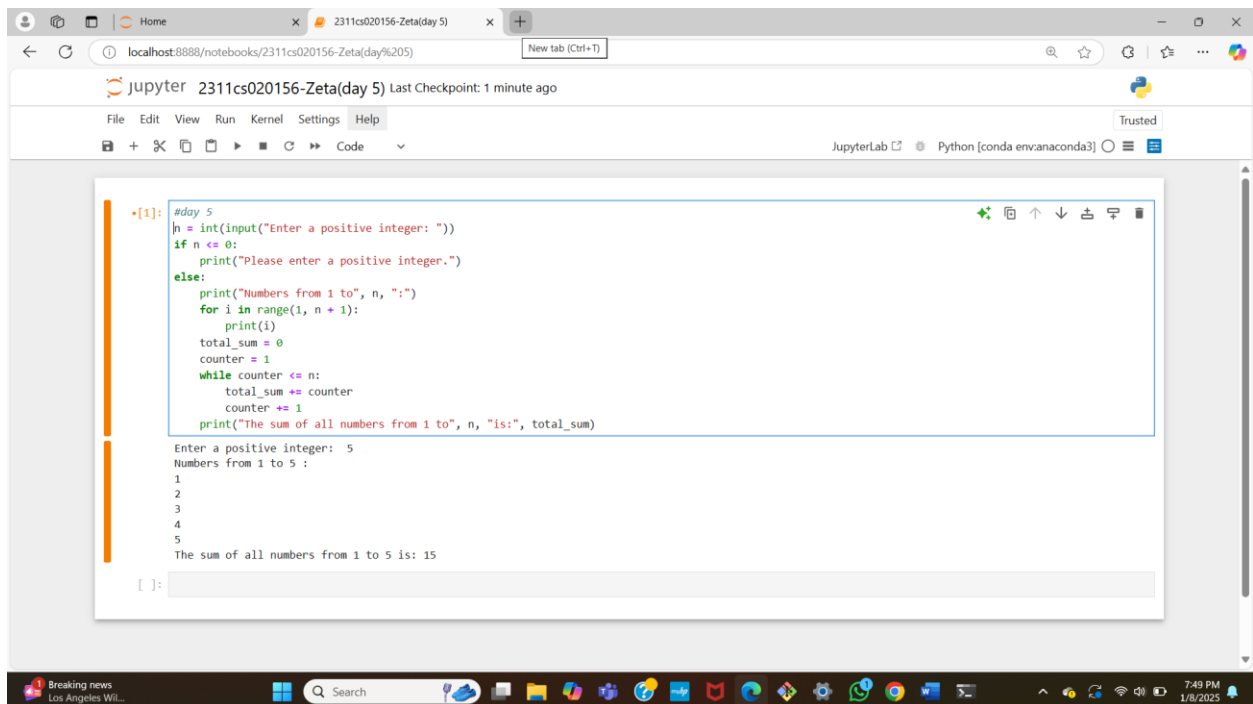


#DAY-5

1) Write a Python program that performs the following tasks:

1. Ask the user to enter a positive integer `n`.
2. Use a `for` loop to print all numbers from `1` to `n` on separate lines.
3. Use a `while` loop to calculate the sum of all numbers from `1` to `n` and print the result.



The screenshot shows a JupyterLab notebook interface. The browser address bar indicates the notebook is running on localhost:8888. The notebook title is "2311cs020156-Zeta(day 5)". The code cell contains the following Python code:

```
[1]: #day 5
n = int(input("Enter a positive integer: "))
if n <= 0:
    print("Please enter a positive integer.")
else:
    print("Numbers from 1 to", n, ":")
    for i in range(1, n + 1):
        print(i)
    total_sum = 0
    counter = 1
    while counter <= n:
        total_sum += counter
        counter += 1
    print("The sum of all numbers from 1 to", n, "is:", total_sum)
```

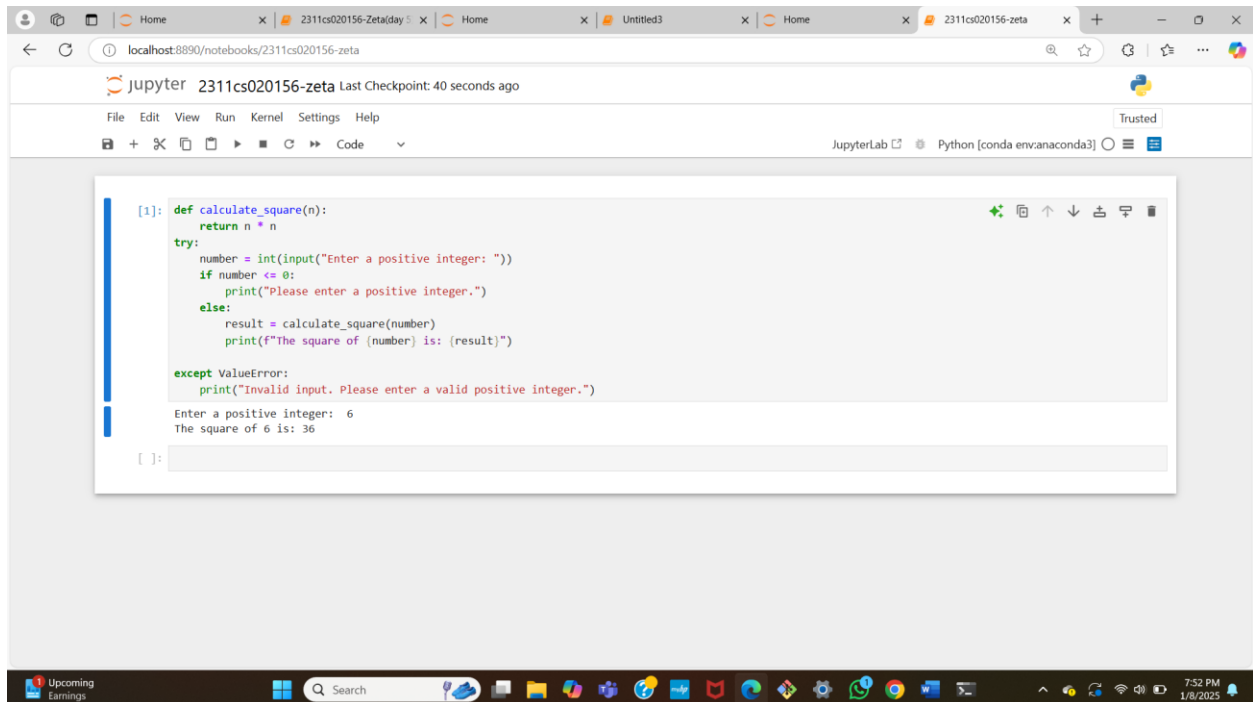
The output of the code is displayed below the code cell:

```
Enter a positive integer: 5
Numbers from 1 to 5 :
1
2
3
4
5
The sum of all numbers from 1 to 5 is: 15
```

The JupyterLab interface includes a menu bar (File, Edit, View, Run, Kernel, Settings, Help) and a toolbar with various icons for file operations, running the code, and viewing the output. The bottom of the screen shows the Windows taskbar with the date and time (7:49 PM, 1/8/2023).

2) Write a Python program that includes a user-defined function to perform the following tasks:

1. Define a function named `calculate_square` that takes a single argument `n` and returns the square of `n`.
2. In the main program, ask the user to input a positive integer.
3. Call the `calculate_square` function with the user-provided number and display the result.



The screenshot shows a JupyterLab interface in a web browser. The notebook is titled "2311cs020156-zeta" and shows a single code cell with the following Python code:

```
[1]: def calculate_square(n):  
    return n * n  
  
    try:  
        number = int(input("Enter a positive integer: "))  
        if number <= 0:  
            print("Please enter a positive integer.")  
        else:  
            result = calculate_square(number)  
            print(f"The square of {number} is: {result}")  
  
    except ValueError:  
        print("Invalid input. Please enter a valid positive integer.")  
  
Enter a positive integer: 6  
The square of 6 is: 36  
  
[ ]:
```

The output of the code cell shows the user input "6" and the resulting output "The square of 6 is: 36". The JupyterLab interface includes a menu bar (File, Edit, View, Run, Kernel, Settings, Help) and a toolbar with various icons for file operations and execution. The browser window shows the URL "localhost:8890/notebooks/2311cs020156-zeta".