

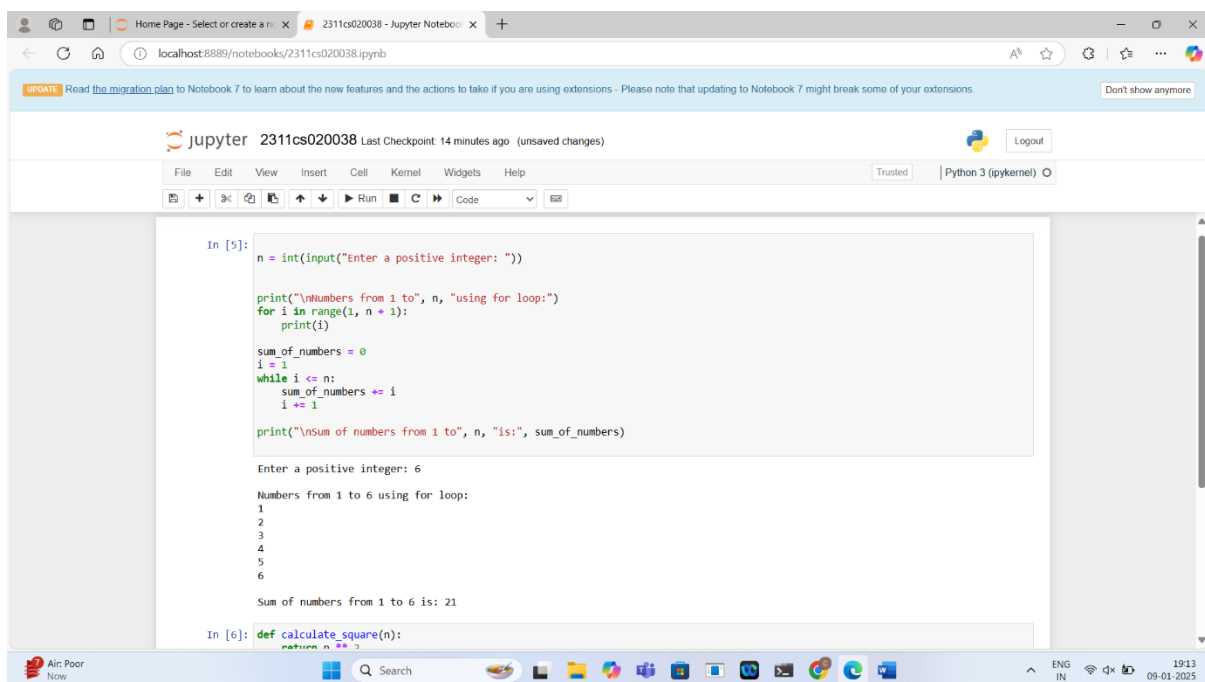
Day 5

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.

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.



```
In [5]: n = int(input("Enter a positive integer: "))

print("\nNumbers from 1 to", n, "using for loop:")
for i in range(1, n + 1):
    print(i)

sum_of_numbers = 0
i = 1
while i <= n:
    sum_of_numbers += i
    i += 1

print("\nSum of numbers from 1 to", n, "is:", sum_of_numbers)

Enter a positive integer: 6

Numbers from 1 to 6 using for loop:
1
2
3
4
5
6

Sum of numbers from 1 to 6 is: 21

In [6]: def calculate_square(n):
        return n ** 2
```

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UPDATE: Read the [migration plan](#) to Notebook 7 to learn about the new features and the actions to take if you are using extensions - Please note that updating to Notebook 7 might break some of your extensions. Don't show anymore

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Enter a positive integer: 6

Numbers from 1 to 6 using for loop:

```
1
2
3
4
5
6
```

Sum of numbers from 1 to 6 is: 21

```
In [6]: def calculate_square(n):
        return n ** 2
n = int(input("Enter a positive integer to calculate its square: "))
result = calculate_square(n)
print(f"The square of {n} is: {result}")
```

Enter a positive integer to calculate its square: 6

The square of 6 is: 36

In []:

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