***NAME :- KAUSHAL KUMAR.***

***HALLTICKET NO :-2403A51317***

***ASSIGNMENT :-4.2***

# Task1:

***Zero-shot: Prompt AI with only the instruction — Write a Python function to generate the Fibonacci sequence up to n terms***

***Expected Output#1***

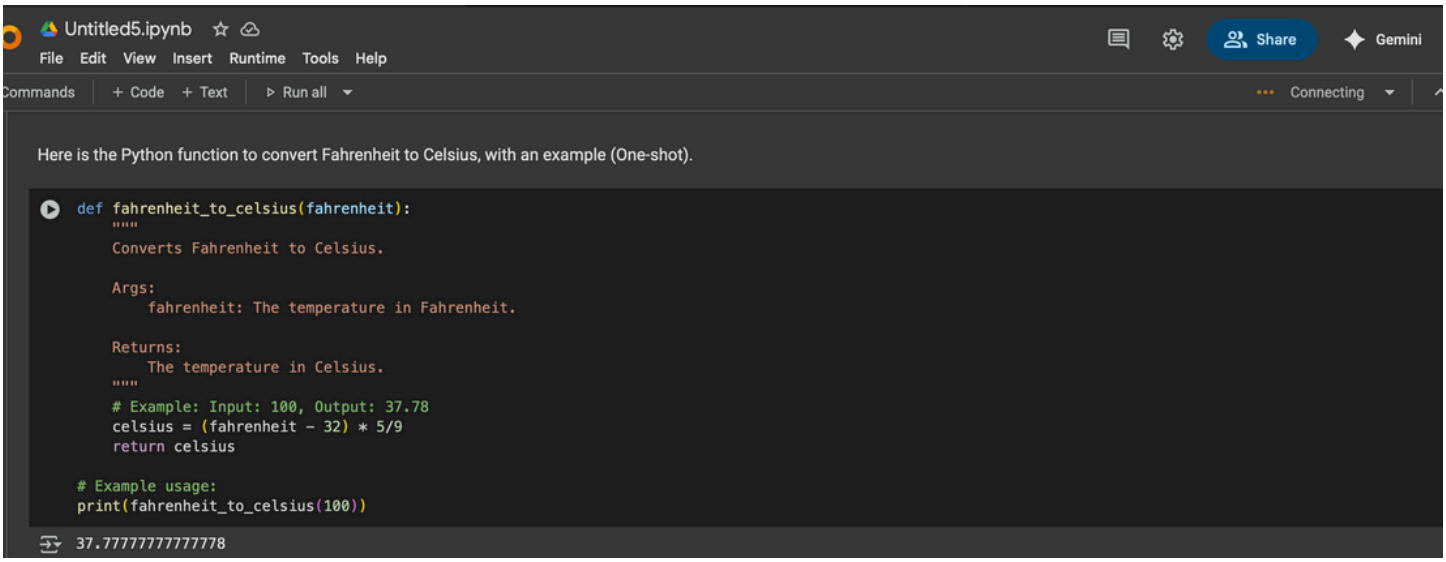
***• A working function without using any sample inputs/outputs.***


## TASK 2:-

**One-shot: Provide one example: Input: 100, Output: 37.78 to help AI generate a function that converts Fahrenheit to Celsius.**

**Expected Output#2**

**• A correct conversion function guided by the single example.**

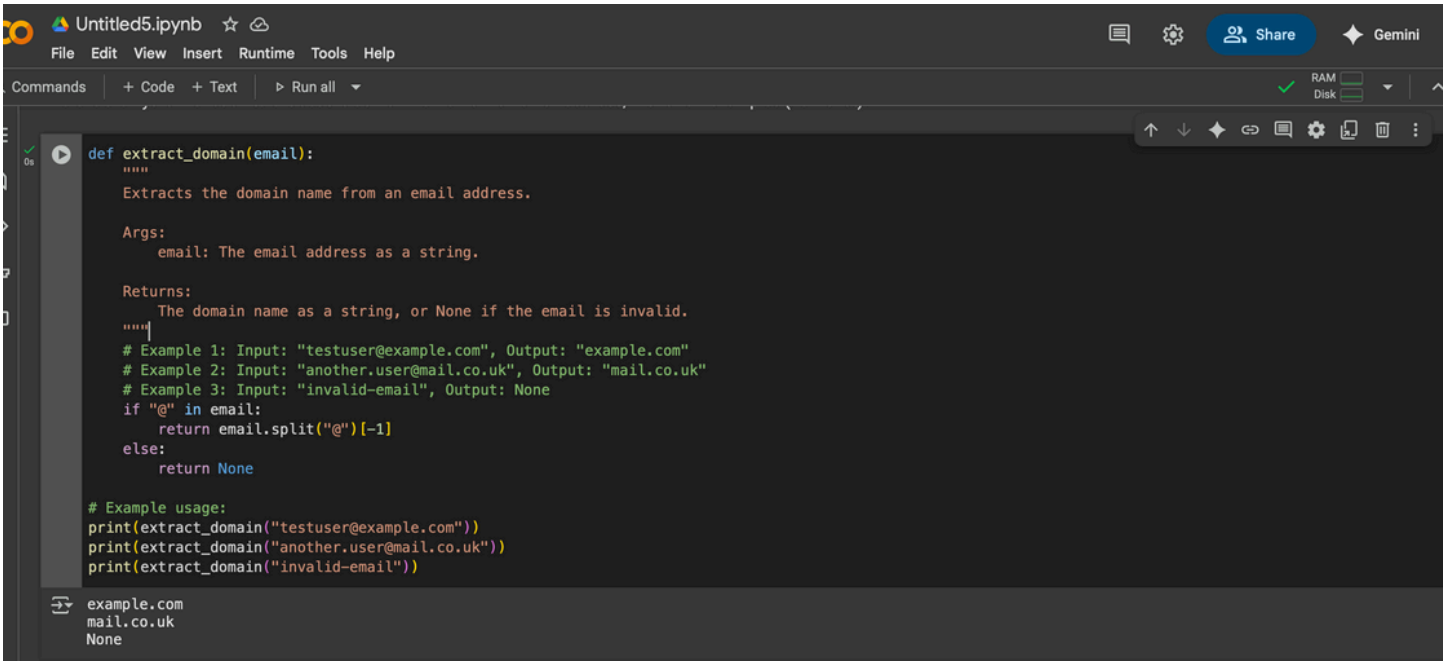



## TASK 3:-

**Few-shot: Give 2–3 examples to create a function that extracts the domain name from an email address.**

**Expected Output#3**

**• Accurate function that returns only the domain portion of an email (e.g., @gmail.com).**




## TASK 4:-

**Output comparison + student explanation on how examples helped the model.**

**Task Description#5**

**• Use few-shot prompting with 3 sample inputs to generate a function that determines the maximum of three numbers without using the built-in max() function.**

```python
def find_maximum(num1, num2, num3):
  """
  Determines the maximum of three numbers without using the built-in max() functio

  Args:
    num1: The first number.
    num2: The second number.
    num3: The third number.

  Returns:
    The maximum of the three numbers.
  """
  if num1 >= num2 and num1 >= num3:
    return num1
  elif num2 >= num1 and num2 >= num3:
    return num2
  else:
    return num3

# Sample inputs and outputs
print(f"The maximum of 5, 10, 3 is: {find_maximum(5, 10, 3)}")
print(f"The maximum of -1, -5, 0 is: {find_maximum(-1, -5, 0)}")
print(f"The maximum of 7, 7, 7 is: {find_maximum(7, 7, 7)}")
```

**Output:**

```
The maximum of 5, 10, 3 is: 10
The maximum of -1, -5, 0 is: 0
The maximum of 7, 7, 7 is: 7
```

## TASK 5:-

**Use few-shot prompting with 3 sample inputs to generate a function that determines the maximum of three numbers without using the built-in max() function.**

**Expected Output#5**

**• A function that handles all cases with correct logic based on example patterns.**

```python
def find_maximum(num1, num2, num3):
  """
  Determines the maximum of three numbers without using the built-in max() functio

  Args:
    num1: The first number.
    num2: The second number.
    num3: The third number.

  Returns:
    The maximum of the three numbers.
  """
  if num1 >= num2 and num1 >= num3:
    return num1
  elif num2 >= num1 and num2 >= num3:
    return num2
  else:
    return num3

# Sample inputs
print(f"The maximum of 5, 10, 3 is: {find_maximum(5, 10, 3)}") # Expected: 10
print(f"The maximum of -1, -5, 0 is: {find_maximum(-1, -5, 0)}") # Expected: 0
print(f"The maximum of 7, 7, 7 is: {find_maximum(7, 7, 7)}") # Expected: 7
```

**Output:**

```
The maximum of 5, 10, 3 is: 10
The maximum of -1, -5, 0 is: 0
The maximum of 7, 7, 7 is: 7
```