

# AIAC Lab Assignment 4.2

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Batch : AI 01-02

Subject : AI Assisted Coding

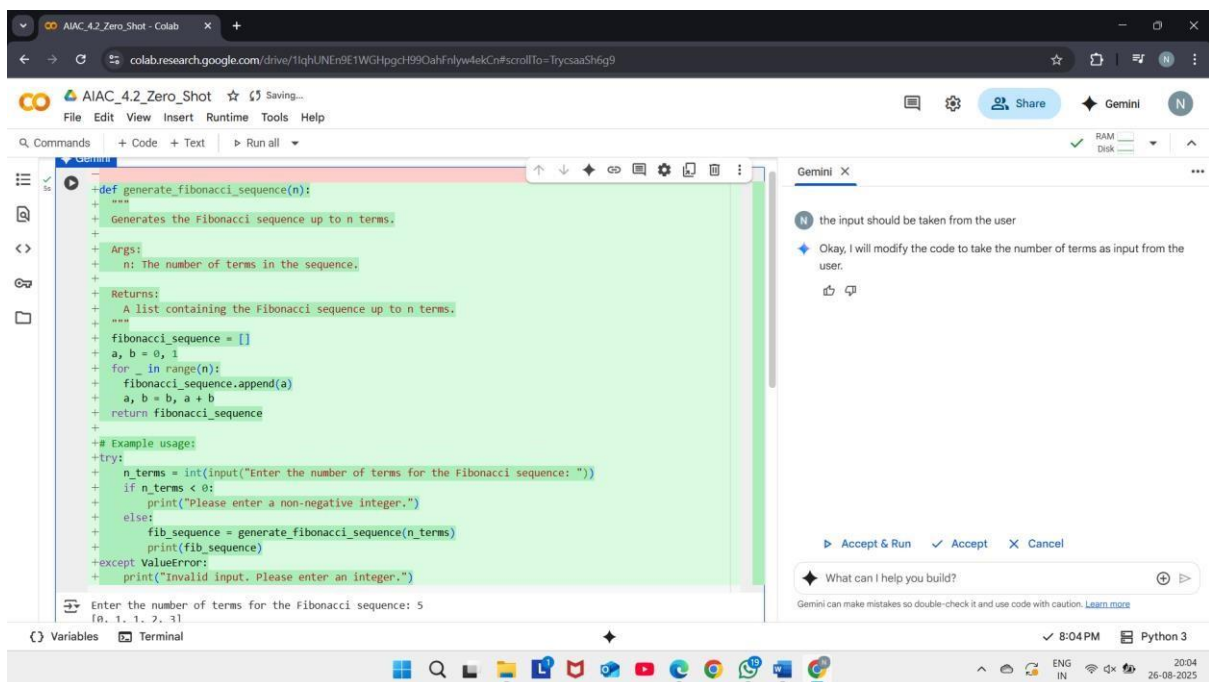
## Task – 1

### Task description :

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

### Prompt:

Generate the python function, to calculate the Fibonacci sequence upto n terms. Take input from the user.



The screenshot shows a Google Colab notebook titled "AIAC\_4.2\_Zero\_Shot". The code in the notebook defines a function `generate_fibonacci_sequence(n)` that generates the Fibonacci sequence up to `n` terms. The function includes docstrings for its purpose, arguments, and return value. It initializes `a = 0` and `b = 1`, and uses a `for` loop to append values to the `fibonacci_sequence` list. Below the function, there is an example usage section that prompts the user for the number of terms, checks for non-negative integers, and calls the function. The output of the code shows the sequence `[0, 1, 1, 2, 3]` for `n = 5`. To the right of the code editor is a Gemini AI chat interface. The user's prompt is "the input should be taken from the user". The AI's response is "Okay, I will modify the code to take the number of terms as input from the user." Below the chat interface is a prompt input field with the text "What can I help you build?".

```
def generate_fibonacci_sequence(n):  
    """  
    Generates the Fibonacci sequence up to n terms.  
    Args:  
        n: The number of terms in the sequence.  
    Returns:  
        A list containing the Fibonacci sequence up to n terms.  
    """  
    fibonacci_sequence = []  
    a, b = 0, 1  
    for _ in range(n):  
        fibonacci_sequence.append(a)  
        a, b = b, a + b  
    return fibonacci_sequence  
  
## Example usage:  
try:  
    n_terms = int(input("Enter the number of terms for the Fibonacci sequence: "))  
    if n_terms < 0:  
        print("Please enter a non-negative integer.")  
    else:  
        fib_sequence = generate_fibonacci_sequence(n_terms)  
        print(fib_sequence)  
except ValueError:  
    print("Invalid input. Please enter an integer.")
```

Enter the number of terms for the Fibonacci sequence: 5  
[0, 1, 1, 2, 3]

Gemini X  
the input should be taken from the user  
Okay, I will modify the code to take the number of terms as input from the user.  
What can I help you build?

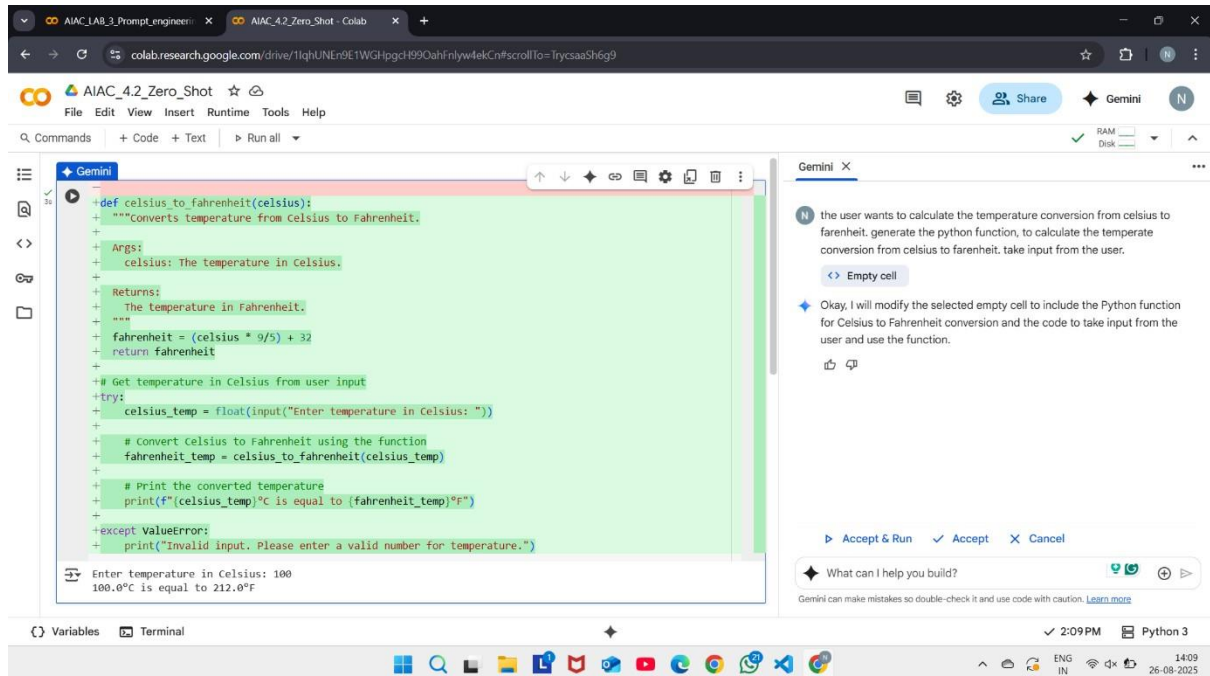
## Task – 2

### Task description:

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

## Prompt:

The user wants to calculate the temperature conversion from Celsius to fahrenheit. Generate the python function, to calculate the temperature conversion from Celsius to fahrenheit. Take input from the user.



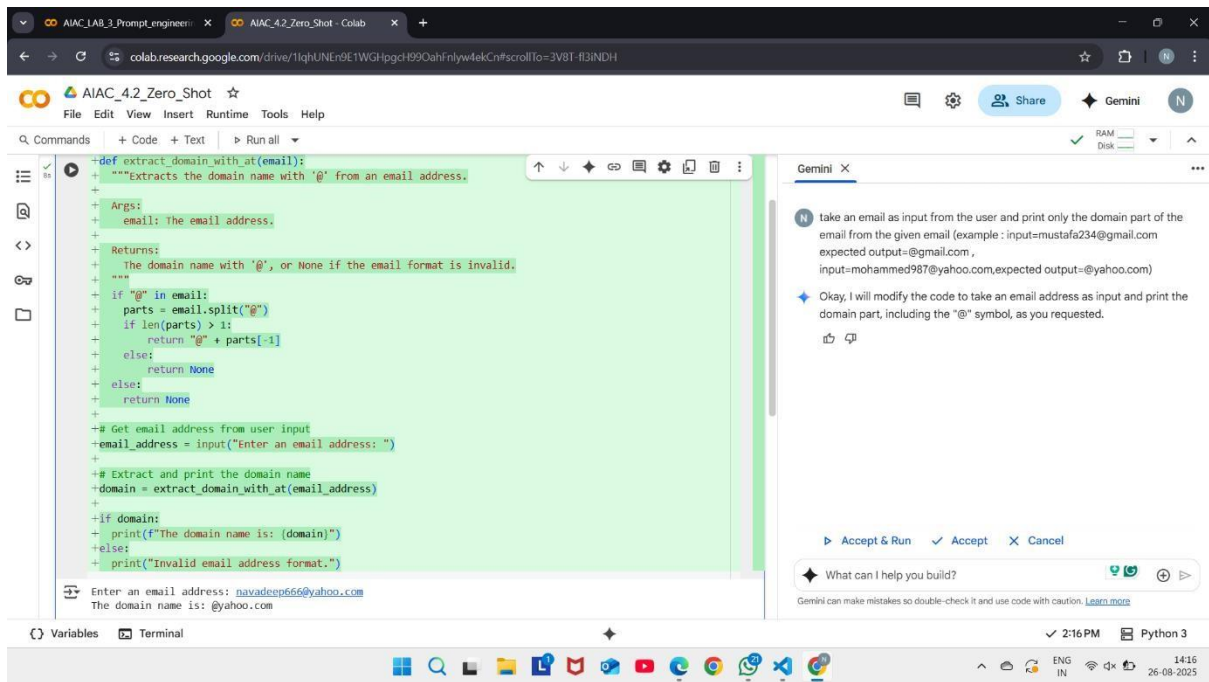
## Task – 3

### Task Description:

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

## Prompt:

Take an email as an input from the user and print only domain part of the email from the given email. (example input:navadeep566@yahoo.com , output: @yahoo.com). Take the email input from the user.



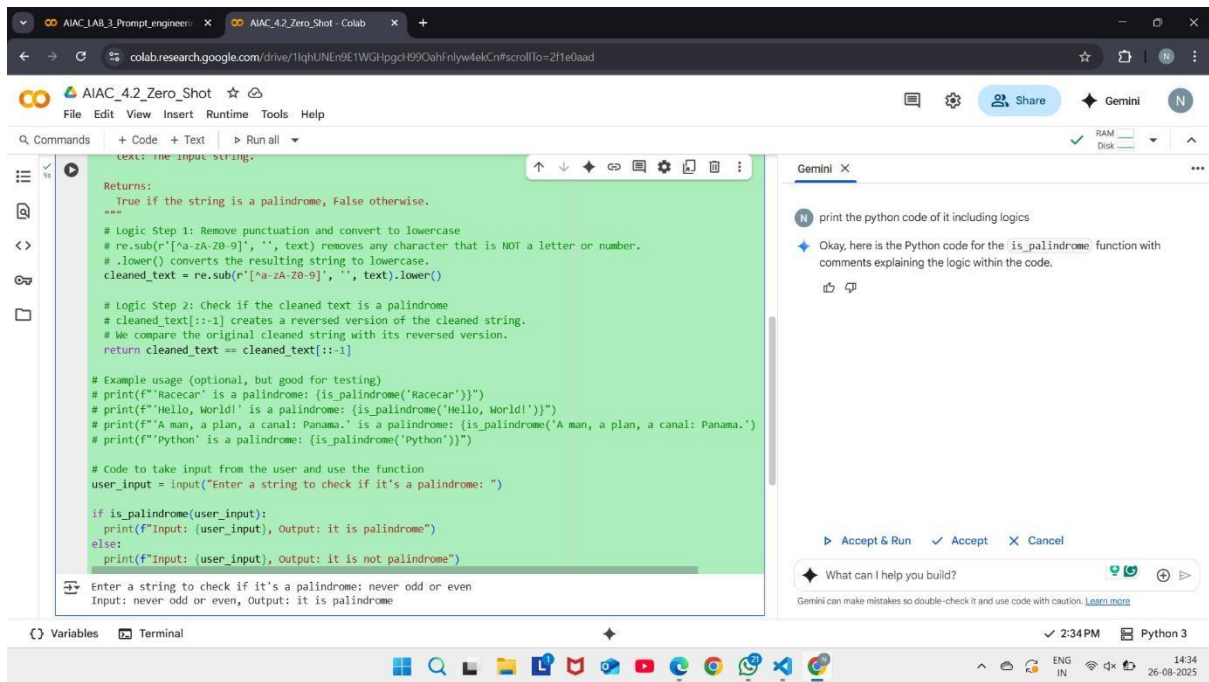
## Task – 4

### Task Description:

Compare zero-shot vs few-shot prompting for generating a function that checks whether a word is a palindrome, ignoring punctuation and case.

### Prompt:

generate a python code to calculate the palindrome of an string.(example : input: naman, output: it is palindrome). take input from the user



## Task – 5

### Task Description:

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.

### Prompt:

generate a python code that determines the maximum of three numbers without using the built-in `max()` function. (example, input:3,3,4 output:4 is the gargest number).take the numbers as input from the user.the user should not enter the same number more than one time.

AIAC\_1A8\_3\_Prompt\_engineer... AIAC\_4.2\_Zero\_Shot - Colab

colab.research.google.com/drive/1lqhUNr9E1WGlpgcdH99OahFnyw4ekCn?scrollTo=5070d198

AIAC\_4.2\_Zero\_Shot

File Edit View Insert Runtime Tools Help

Q Commands + Code + Text ▶ Run all

Get three numbers as input from the user

```
try:
    num1 = float(input("Enter the first number: "))
    num2 = float(input("Enter the second number: "))
    num3 = float(input("Enter the third number: "))

    # Determine the maximum number without using max()
    maximum = num1
    if num2 > maximum:
        maximum = num2
    if num3 > maximum:
        maximum = num3

    # Print the output in the specified format
    print(f"Input:{num1},{num2},{num3} output:{maximum} is the largest number")

except ValueError:
    print("Invalid input. Please enter valid numbers.")
```

Enter the first number: 2  
Enter the second number: 3  
Enter the third number: 4  
Input:2.0,3.0,4.0 output:4.0 is the largest number

Gemini

generate a python code that determines the maximum of three numbers without using the built-in `max()` function. (example, input:3,3,4 output:4 is the largest number).take the numbers as input from the user

Okay, I can generate the Python code to find the maximum of three numbers without using the `max()` function, taking input from the user and printing the output in the format you specified.

Accept & Run ✓ Accept ✕ Cancel

What can I help you build?

Gemini can make mistakes so double-check it and use code with caution. [Learn more](#)

Variables Terminal

2:37 PM Python 3

14:38 26-08-2025