PROGRAM : B.TECH/CSE

SPECIALIZATION : AIML

COURSE TITLE : AI ASSISTANT CODING

COURSE CODE : 24CS101PC214

SEMESTER : 3RD

NAME OF THE STUDENT : KARNAKANTI GODADEVI

ENROLLMENT NO : 2403A52003

BATCH NO : 01

Task Description#1

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

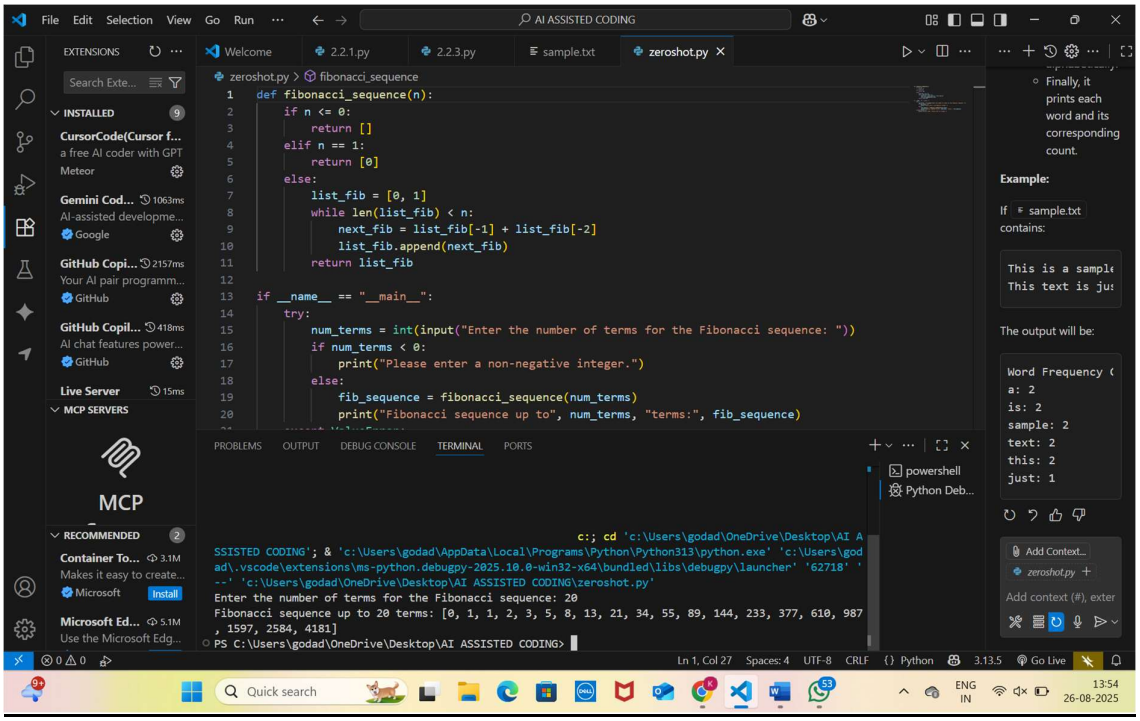
Expected Output#1

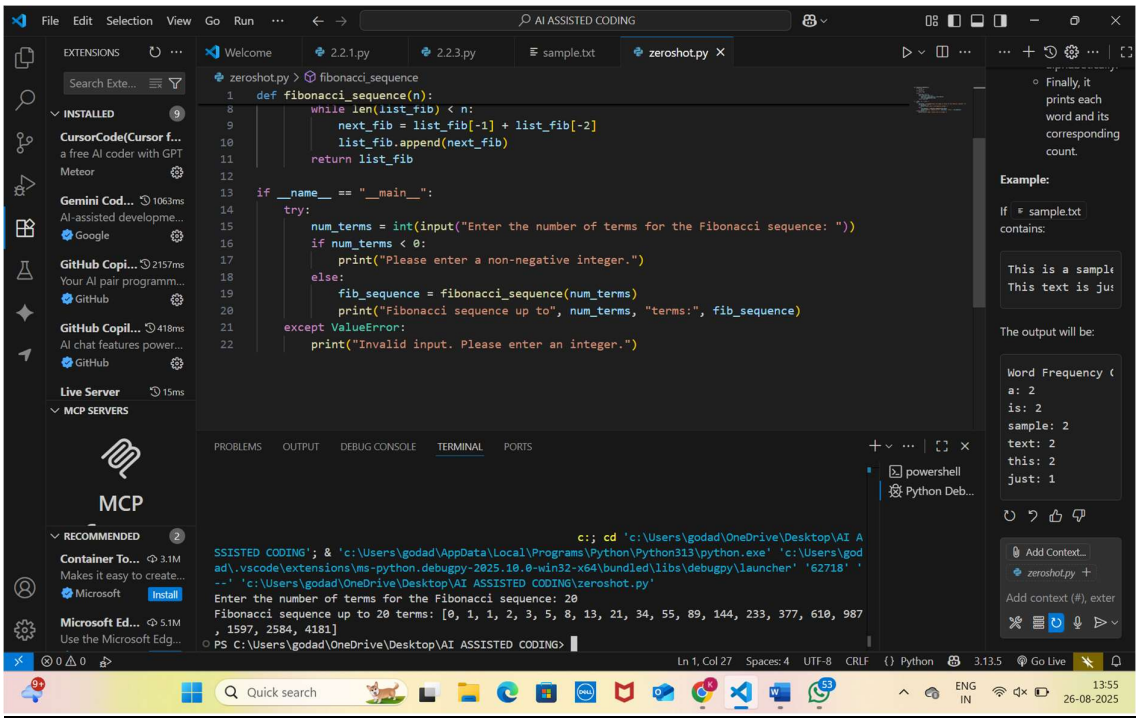
• A working function without using any sample inputs/outputs.

Prompt:

Write a Python function to generate the Fibonacci sequence up to n terms dynamically generate output by asking the user the number of term**s.**

Code & Output:





Task Description#2

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

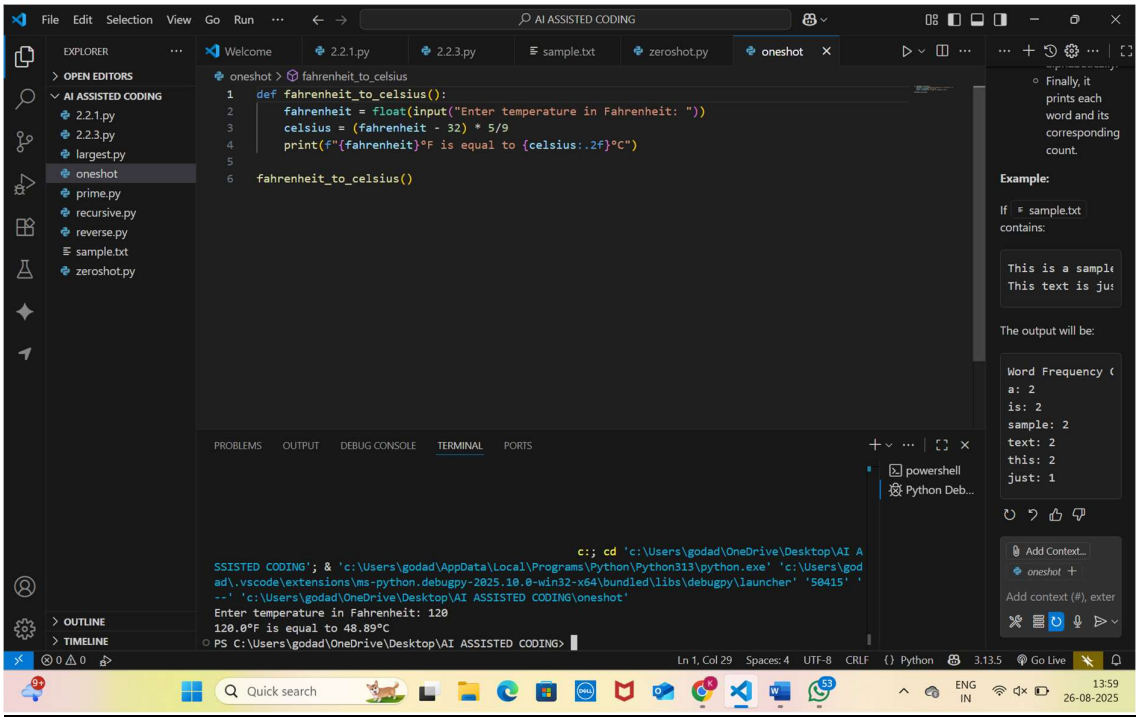
Expected Output#2

• A correct conversion function guided by the single example.

Prompt:

example: Input: 100, Output: 37.78 generate a
function that converts Fahrenheit to Celsius by asking the user dynamically and generate output.

Code&Output:



Task Description#3

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

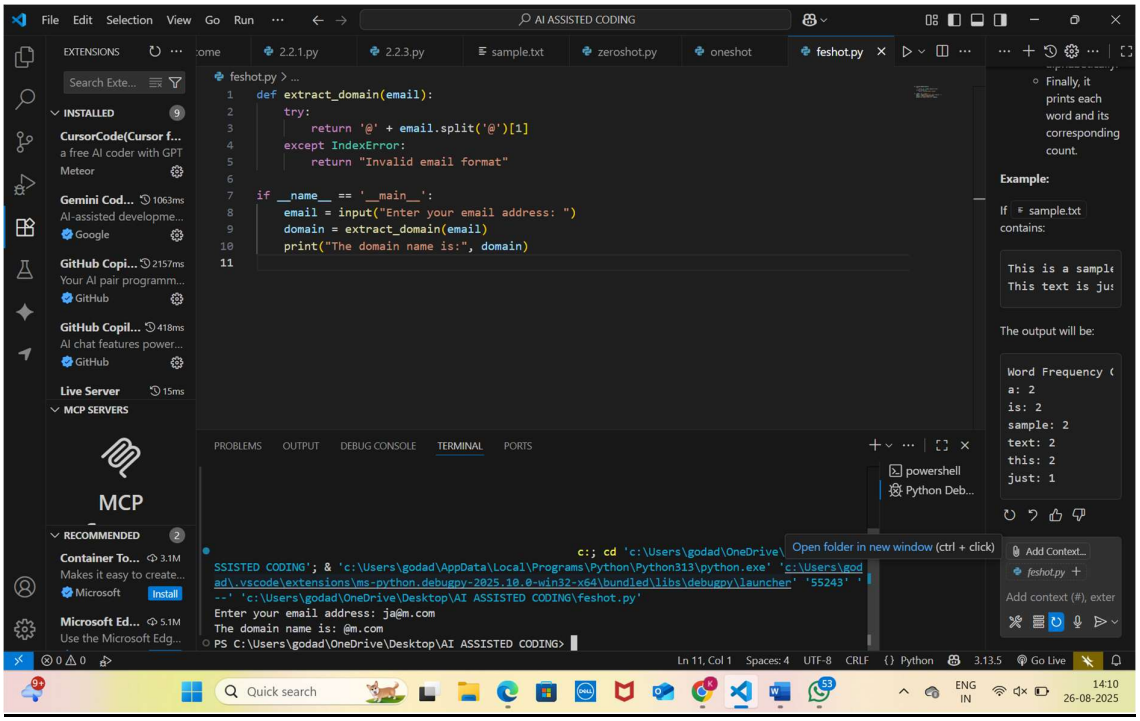
Expected Output#3

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

Prompt:

Examples:1.2403a52003@sru.edu.in and domain is @sru.edu.in ,2.godadevireddy@gmail.com and domain is @gmail.com.By this examples create a function that extracts the domain name from
an email address by asking the user email address dynamically.

Code&Output:



Task Description#4

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

Expected Output#4

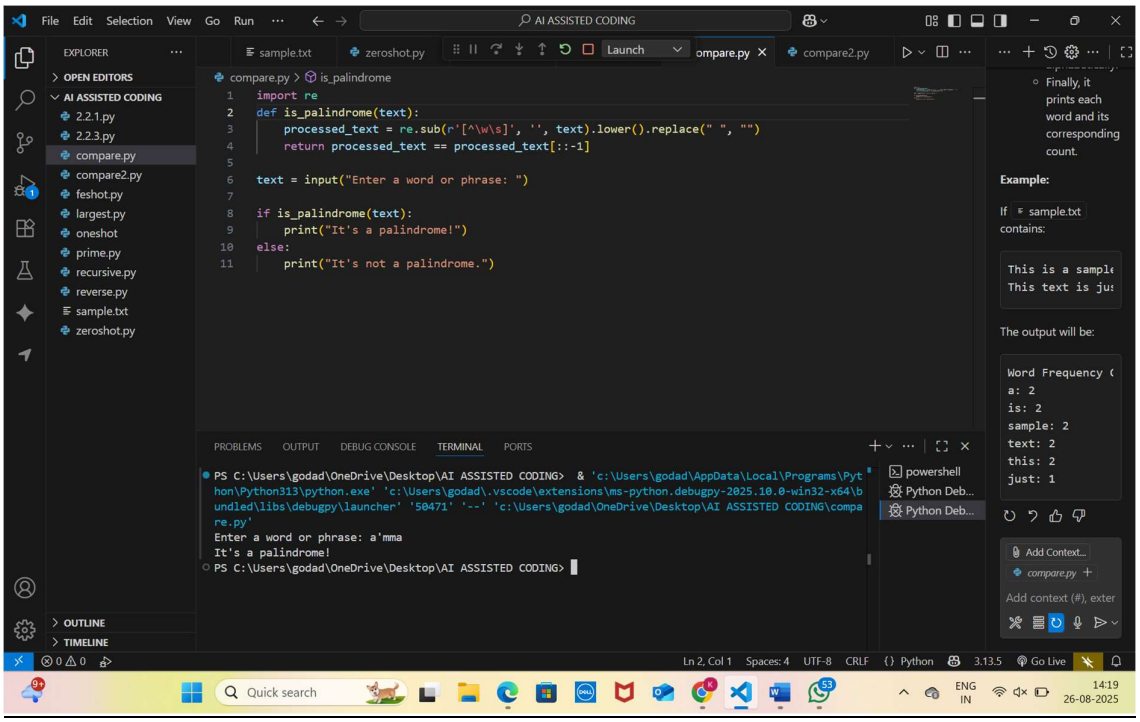
• Output comparison + student explanation on how examples helped the mode

Prompt:

Zeroshot:

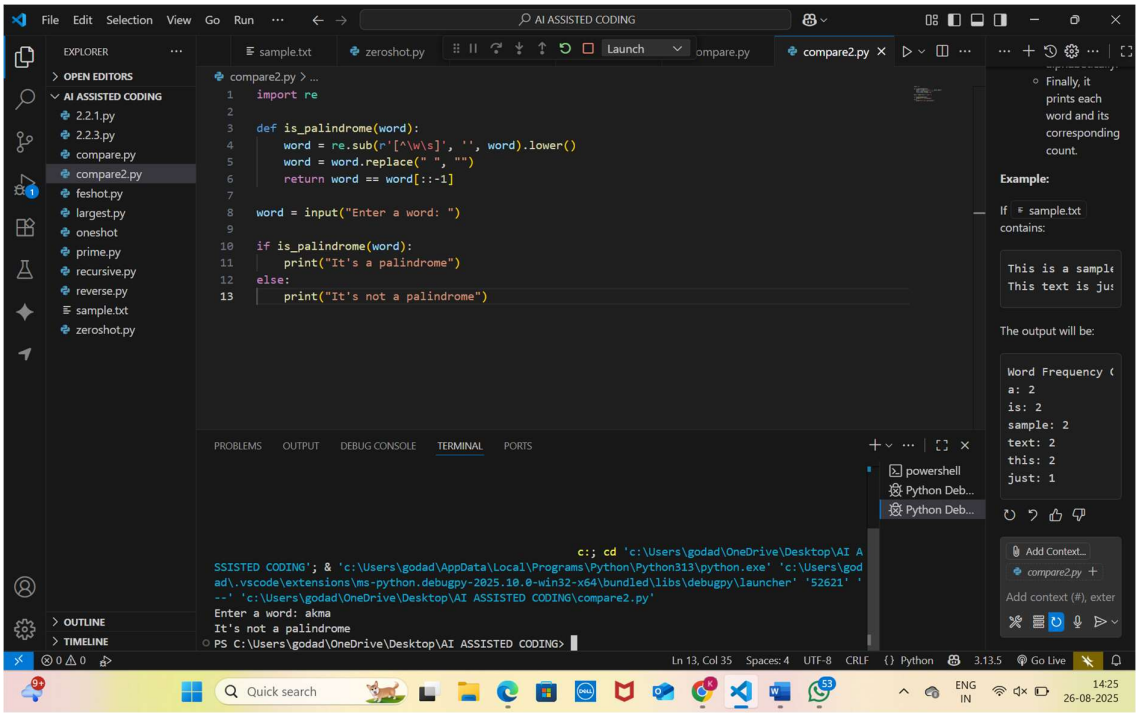
_check whether the given word is palindrome or not ignoring punctuation and case by asking user dynamically.

Code&Output:



Few shot:

check whether the given word is palindrome or not ignoring punctuation and case by asking user dynamically.Example1.:a'mma output:It's a palindrome 2:akma: output:it's not a palindrome.



Observation:

*Zero-shot prompting gives the model only a task description. While it understands the basic goal (checking for palindromes), it often misses nuances like ignoring punctuation or formatting the output in a user-friendly way. The model may produce a technically correct function, but not one that matches the desired behavior or output style.

- Few-shot prompting, on the other hand, provides concrete examples. These examples act like a mini training session, showing the model:
    - How to clean the input (e.g., removing ' from "a'mma").
    - How to handle case sensitivity (e.g., "Akma" vs "akma").
    - What the expected output phrasing should be (“It’s a palindrome” vs “It’s not a palindrome”).
- As a result, few-shot prompting leads to more accurate, consistent, and human-like responses. The model learns not just *what* to do, but *how* to do it—especially when dealing with edge cases or noisy input.

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.

Expected Output#5

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

Prompt:

Determine the maximum of three numbers use other function in place of built-in max() function. Ask the user to input values dynamically. Example 1: numbers: a=10, b=20, c=50 → output: 50 Example 2: numbers: a=100, b=200, c=500 → output: 500 Example 3: numbers: a=1000, b=2000, c=5000 → output: 5000

Code&Output: