# AI Assisted Coding - Lab Test – 1

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* Date – 01-09-2025
* Subject – AI Assisted Coding
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Q1. AI-Assisted Code Optimization [5 M]

● Task: Write a prompt to generate a Python program for sorting a list of numbers using AI tools.

● Then re-prompt the AI to optimize the code for better performance (time complexity).

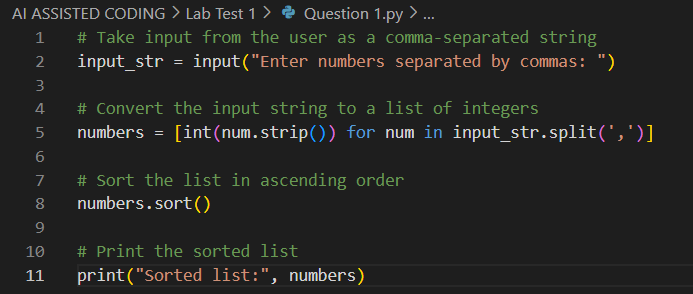
● Requirement: Submit both versions of the code and explain which one is more efficient and why.

Prompt :

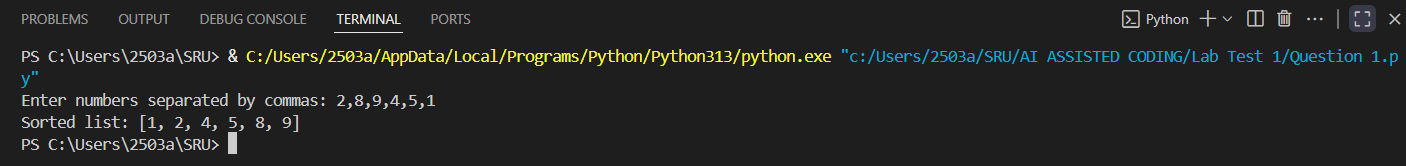
A black background with white text

AI-generated content may be incorrect.

Code :



Output :



Observation :

A screenshot of a computer program

AI-generated content may be incorrect.

Improved Prompt :

A screen shot of a computer

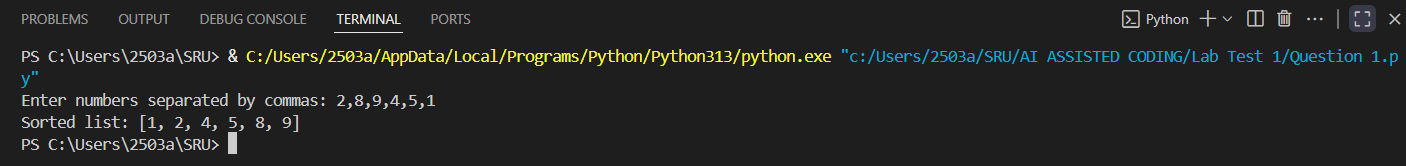
AI-generated content may be incorrect.

Code :

A computer screen with text

AI-generated content may be incorrect.

Output :



Observation :

A screenshot of a black screen

AI-generated content may be incorrect.

Q2. Multi-Stage Code Generation [5 M]

● Task: Ask AI to generate a Python program for Fibonacci series.

● Then re-prompt AI to modify the program so that it:  
1. Accepts user input (n terms).  
2. Uses functions to improve modularity.

● Requirement: Submit both versions of the code and explain how re-prompting improved the program.

Prompt :

A screenshot of a computer

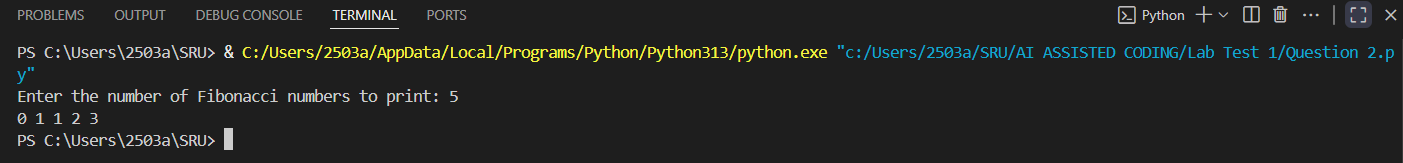
AI-generated content may be incorrect.

Code :

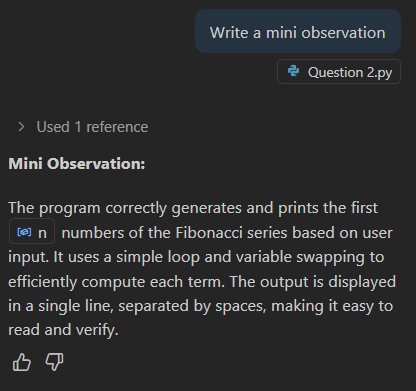
A black screen with a black background

AI-generated content may be incorrect.

Output :



Observation :



Improved Prompt :

A screenshot of a computer program

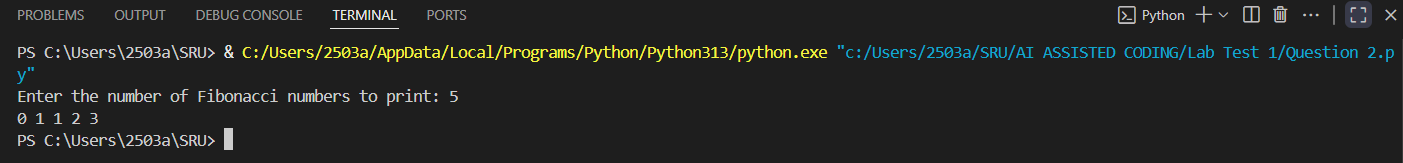
AI-generated content may be incorrect.

Code :

A black screen with a black background

AI-generated content may be incorrect.

Output :



Observation :

A screenshot of a computer

AI-generated content may be incorrect.