AI ASSISTED CODING-LAB ASSIGNMENT

ASSIGNMENT – 3.4

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Batch:13

Task 1: Zero-shot Prompt – Fibonacci Series Generator

ask Description #1

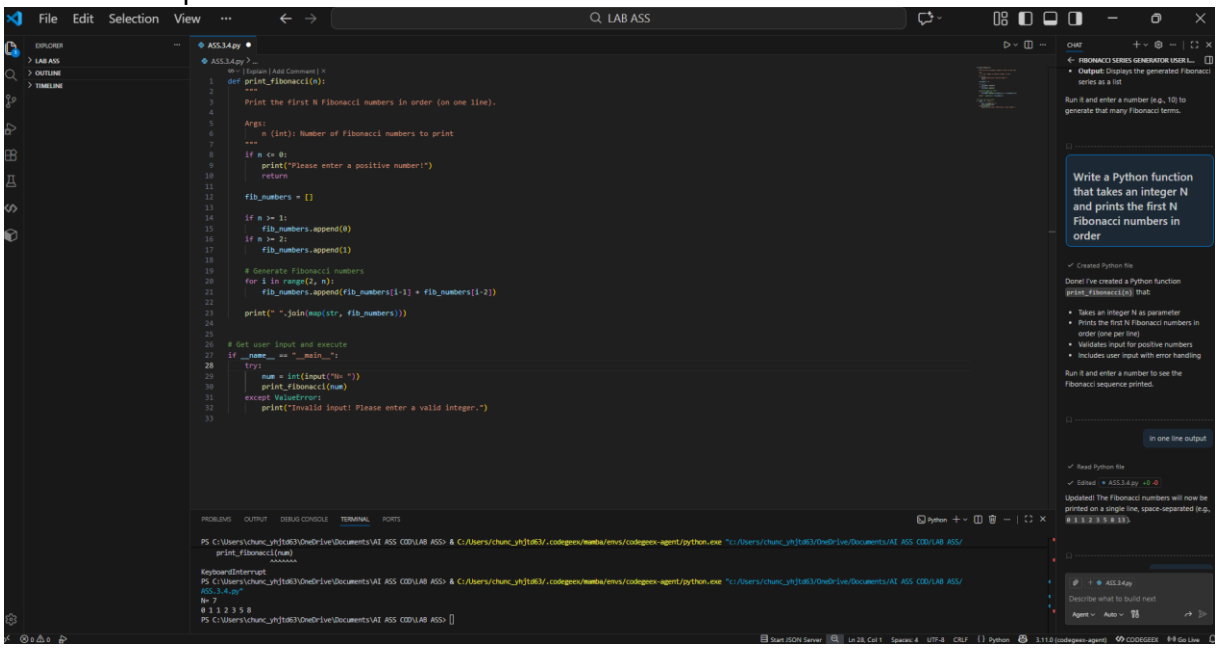
• Without giving an example, write a single comment prompt

asking GitHub Copilot to generate a Python function to print the

first N Fibonacci numbers.

Prompt : "# Write a Python function that takes an integer N and prints the first N Fibonacci numbers in order"

Code and output :



Task 2: One-shot Prompt – List Reversal Function

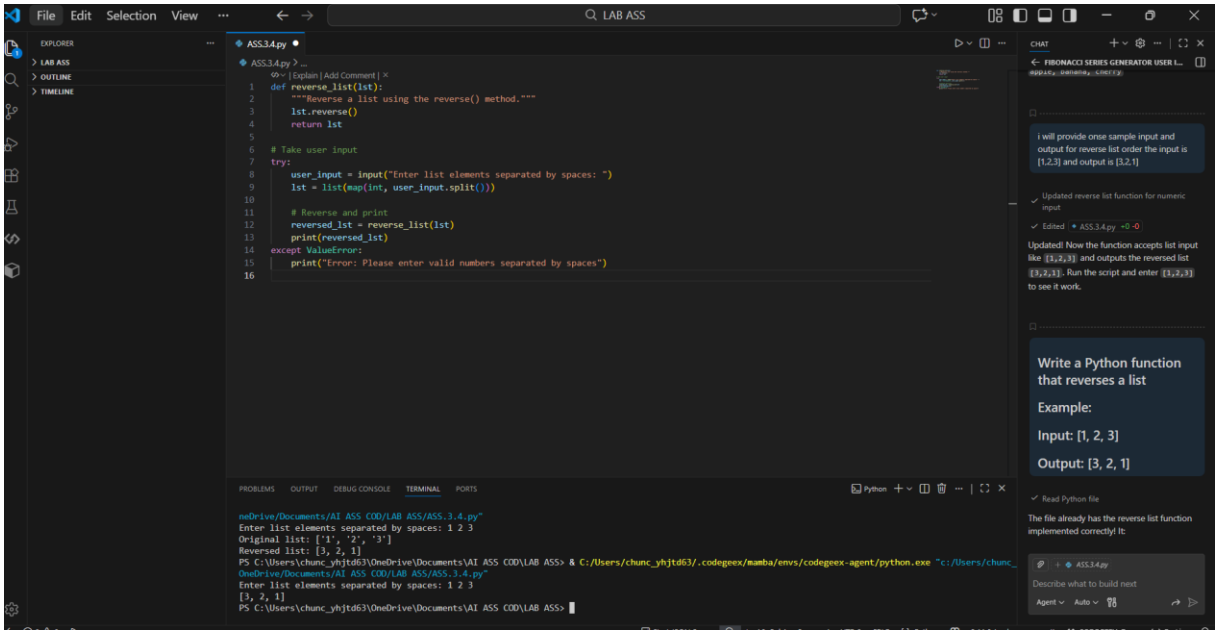
Task Description #2

• Write a comment prompt to reverse a list and provide one

example below the comment to guide Copilot.

Prompt: # Write a Python function that takes a list as input and returns the list in reverse order

Code and output :

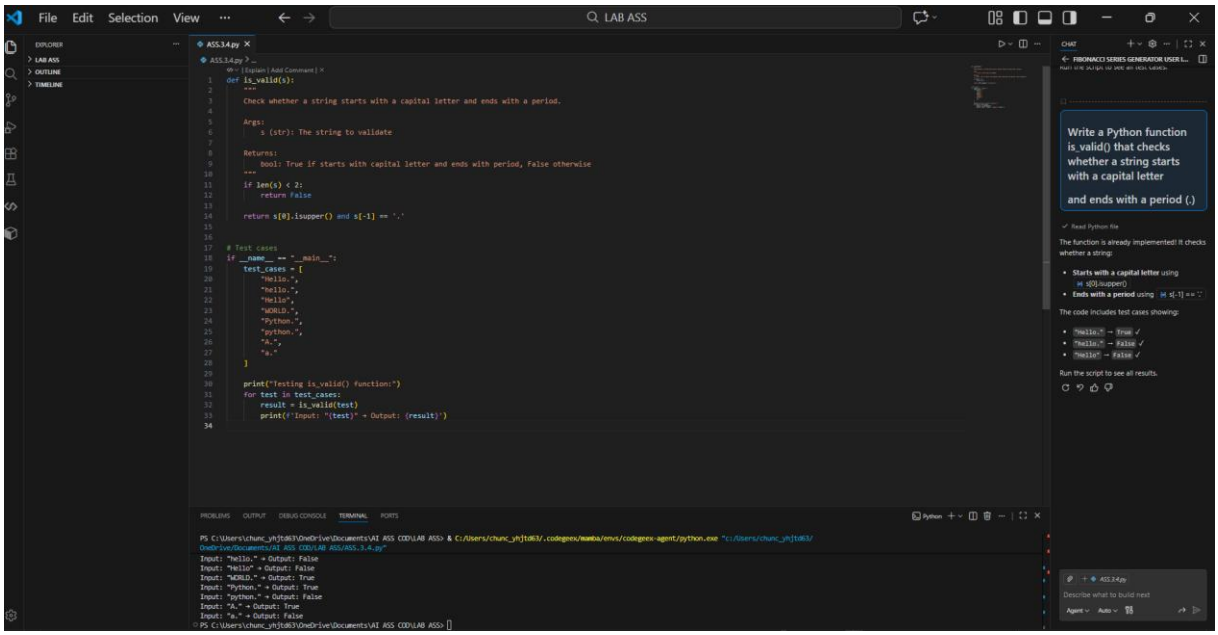


Task 3: Few-shot Prompt – String Pattern Matching

Task Description #3
• Write a comment with 2–3 examples to help Copilot understand
how to check if a string starts with a capital letter and ends with a period.

Prompt: # Write a Python function is_valid() that checks whether a string starts with a capital letter
and ends with a period (.)

Code and output :



Task 4: Zero-shot vs Few-shot – Email Validator

Task Description #4

• First, prompt Copilot to write an email validation function using zero-shot (just the task in comment).

• Then, rewrite the prompt using few-shot examples.

Prompt: # Write a Python function that validates whether a given string is a valid email address

Write a Python function that validates whether a given string is a valid email address

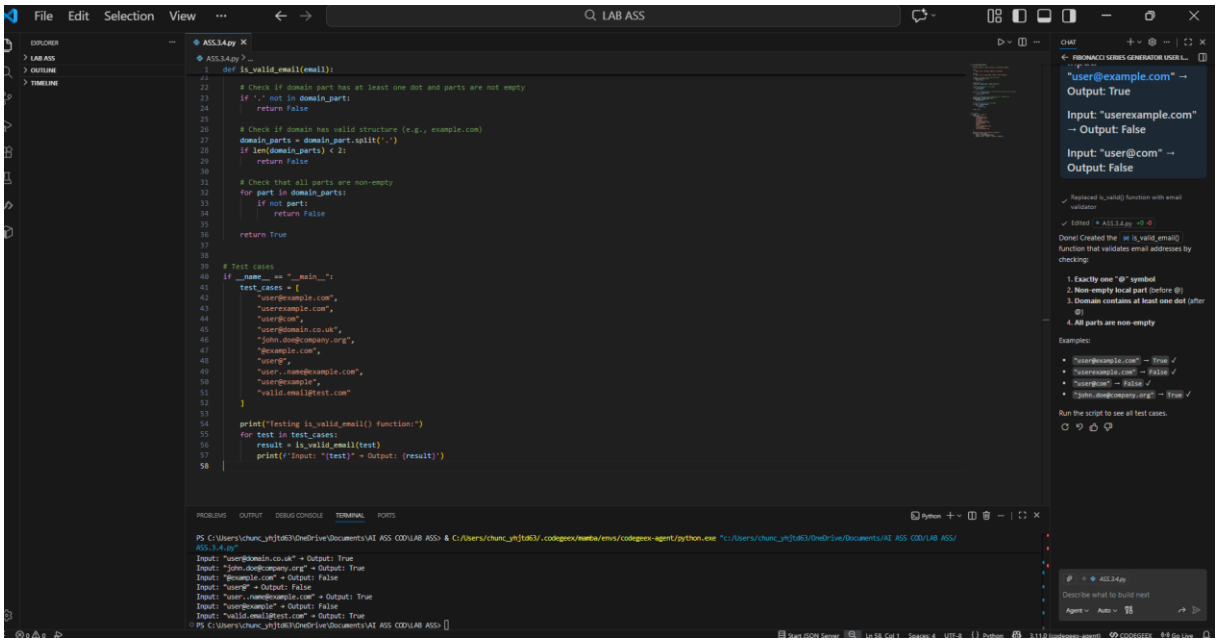
Examples:

Input: "user@example.com" → Output: True

Input: "userexample.com" → Output: False

Input: "user@com" → Output: False

Code and output :



Task 5: Prompt Tuning – Summing Digits of a Number

Task Description #5

• Experiment with 2 different prompt styles to generate a function that returns the sum of digits of a number.

Style 1: Generic task prompt

Style 2: Task + Input/Output example

Prompt:

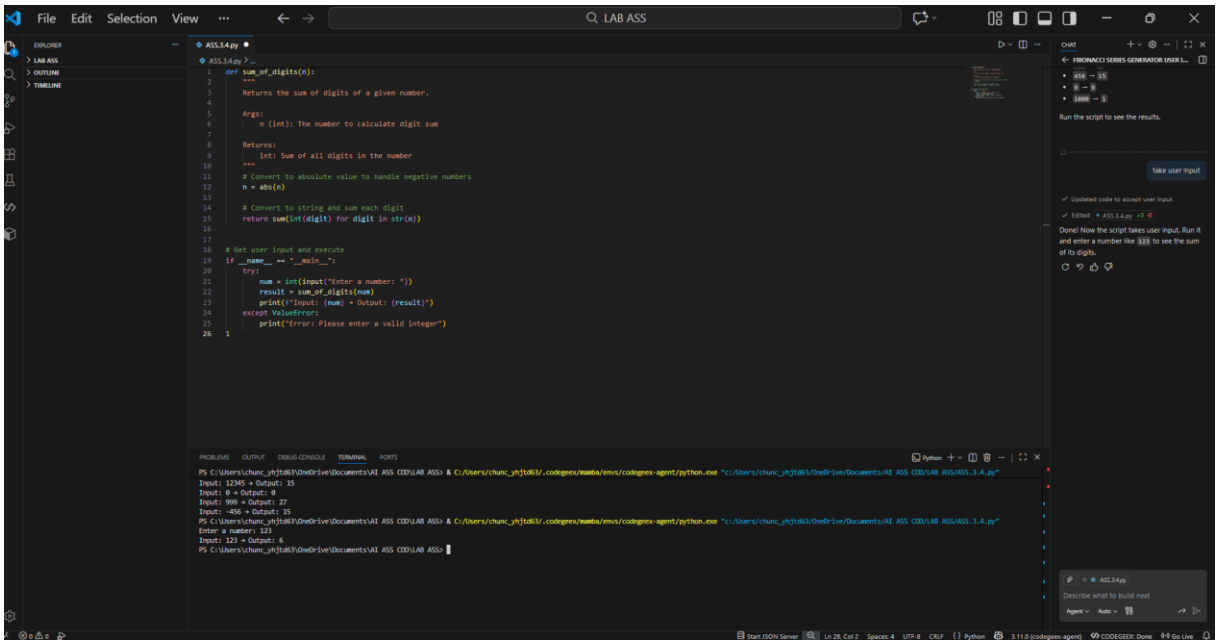
1) # Write a Python function that returns the sum of digits of a given number

2)# Write a Python function that returns the sum of digits of a number

Example:

Input: 123 → Output: 6

Code and output :


File Edit Selection View
LAB ASS
EXPLORER
LAB ASS
OUTLINE
TIMELINE
ASS.3.4.py
def sum_of_digits(n):
"""
Returns the sum of digits of a given number.
Args:
n (int): The number to calculate digit sum
Returns:
int: Sum of all digits in the number
"""
# Convert to absolute value to handle negative numbers
n = abs(n)
# Convert to string and sum each digit
return sum(int(digit) for digit in str(n))
# Get user input and execute
if __name__ == "__main__":
try:
num = int(input("Enter a number: "))
result = sum_of_digits(num)
print(f"Input: {num} → Output: {result}")
except ValueError:
print("Error: Please enter a valid integer")
1
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Python
PS C:\Users\chunc_yhjtd63\OneDrive\Documents\AI ASS CODING\LAB ASS> & C:/Users/chunc_yhjtd63/.codegeex/wamba/envs/codegeex-agent/python.exe "c:/Users/chunc_yhjtd63/OneDrive/Documents/AI ASS CODING/LAB ASS/ASS.3.4.py"
Input: 12345 → Output: 15
Input: 0 → Output: 0
Input: 999 → Output: 27
Input: -456 → Output: 15
PS C:\Users\chunc_yhjtd63\OneDrive\Documents\AI ASS CODING\LAB ASS> & C:/Users/chunc_yhjtd63/.codegeex/wamba/envs/codegeex-agent/python.exe "c:/Users/chunc_yhjtd63/OneDrive/Documents/AI ASS CODING/LAB ASS/ASS.3.4.py"
Enter a number: 123
Input: 123 → Output: 6
PS C:\Users\chunc_yhjtd63\OneDrive\Documents\AI ASS CODING\LAB ASS>
CHAT
FIBONACCI SERIES GENERATOR USER I...
456 → 15
0 → 0
1000 → 1
Run the script to see the results.
take user input
Updated code to accept user input
Edited ASS.3.4.py +0 -0
Done! Now the script takes user input. Run it and enter a number like 123 to see the sum of its digits.
ASS.3.4.py
Describe what to build next
Agent
Auto
Start JSON Server
Ln 26, Col 2
Spaces: 4
UTF-8
CRLF
Python
3.11.0 (codegeex-agent)
CODEGEEX: Done
Go Live