Lesson 04 Demo 04
Creating a Function Using GitHub Copilot

Objective: To build a Python function that counts vowels in each string using GitHub Copilot in VS Code

Tools required: VS Code with GitHub Copilot

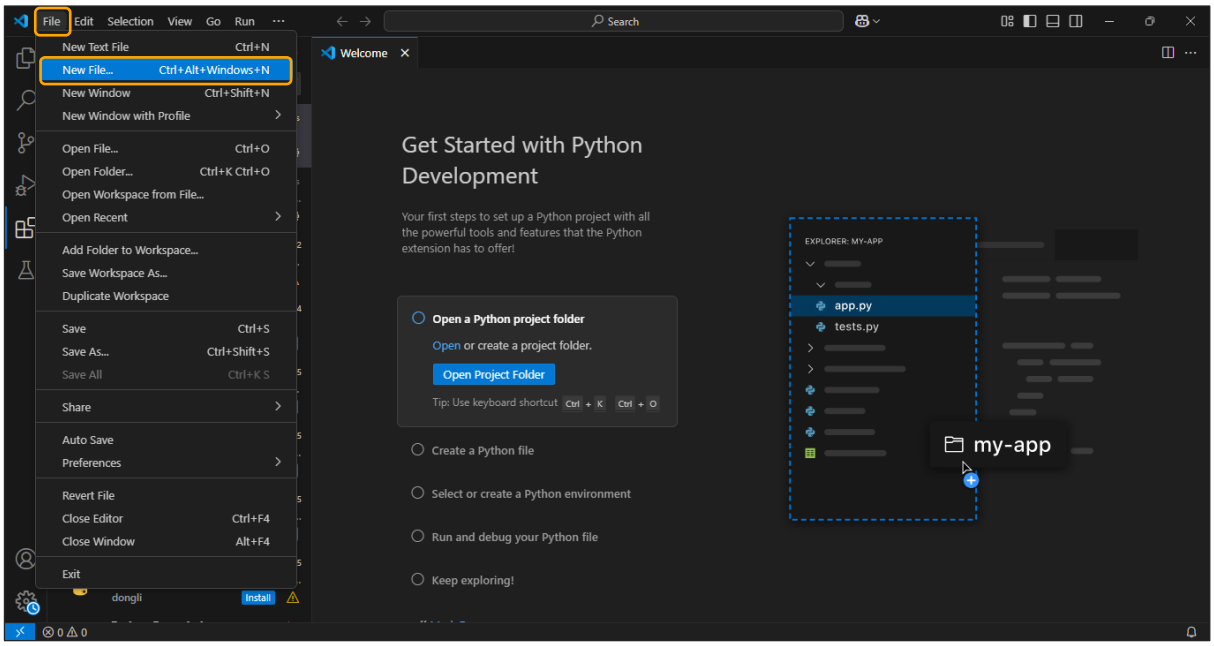
Prerequisites: None

Steps to be followed:

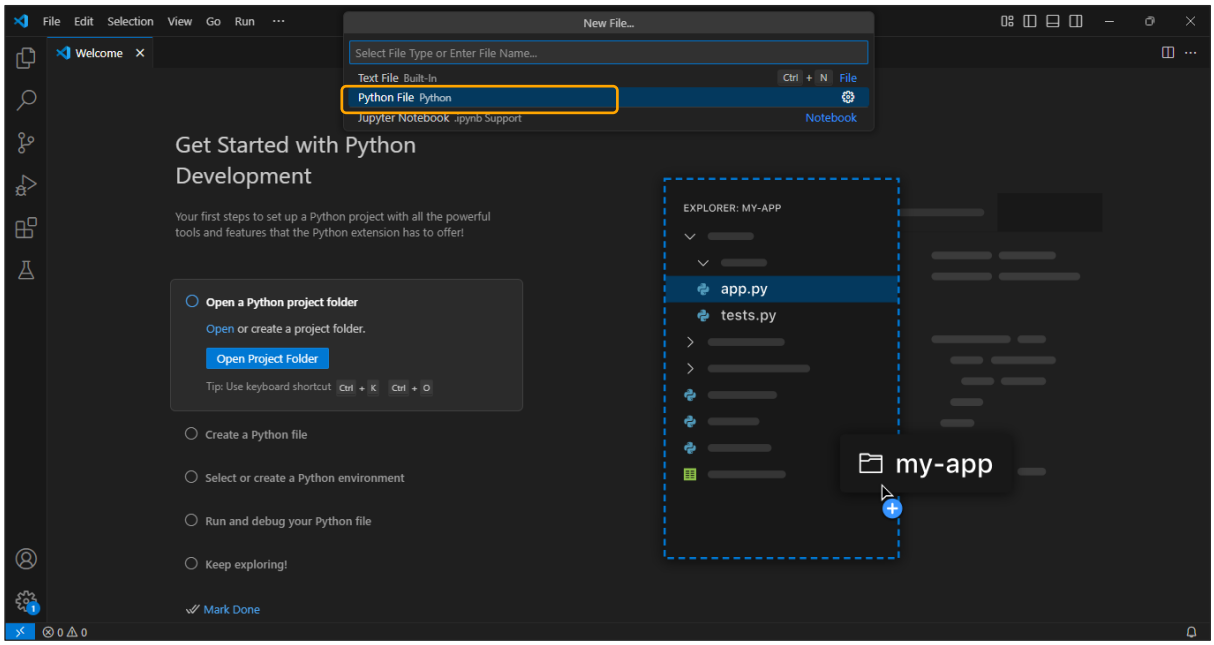
1. Launch VS Code and open a new file
2. Use Copilot to generate the function
3. Test the function

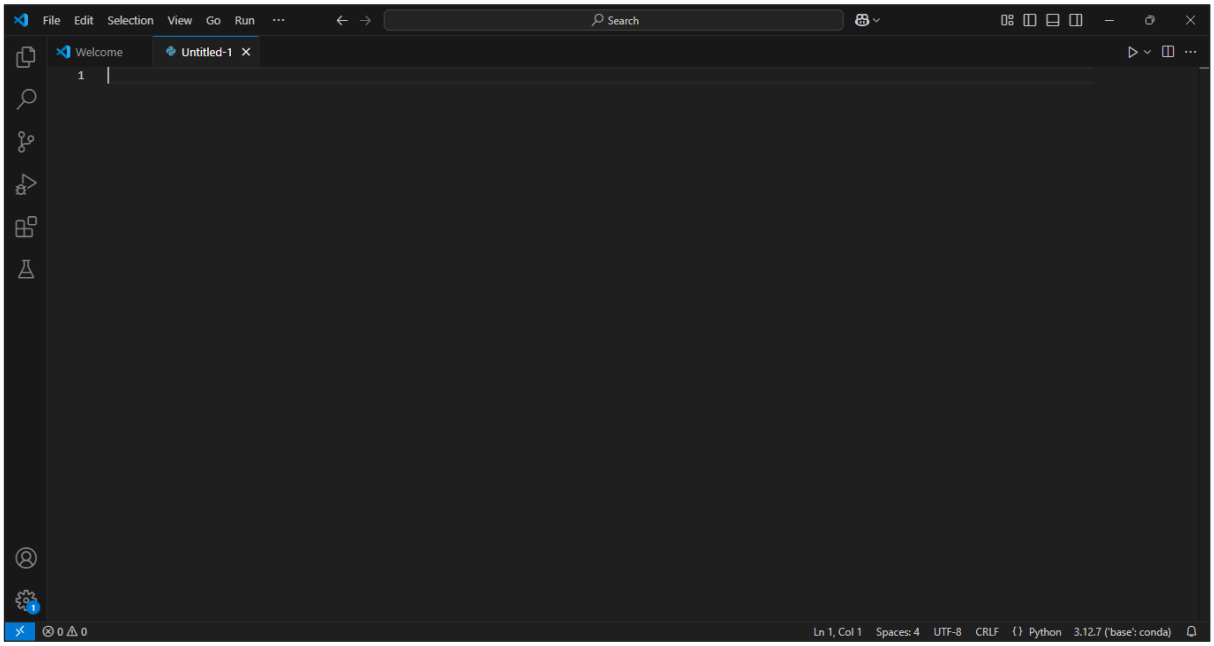
Step 1: Launch VS Code and open a new file

1.1 Launch VS Code and click on **File** and then **New File**



1.2 Select the **Python File** option from the name bar on top and a new Python file named Untitled-1 will open

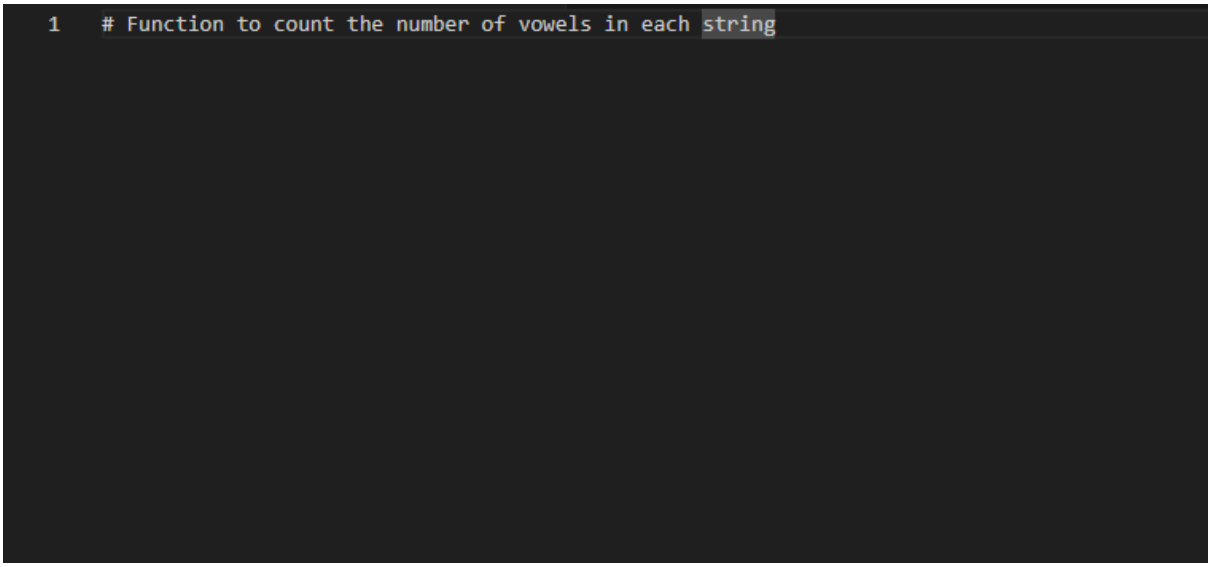




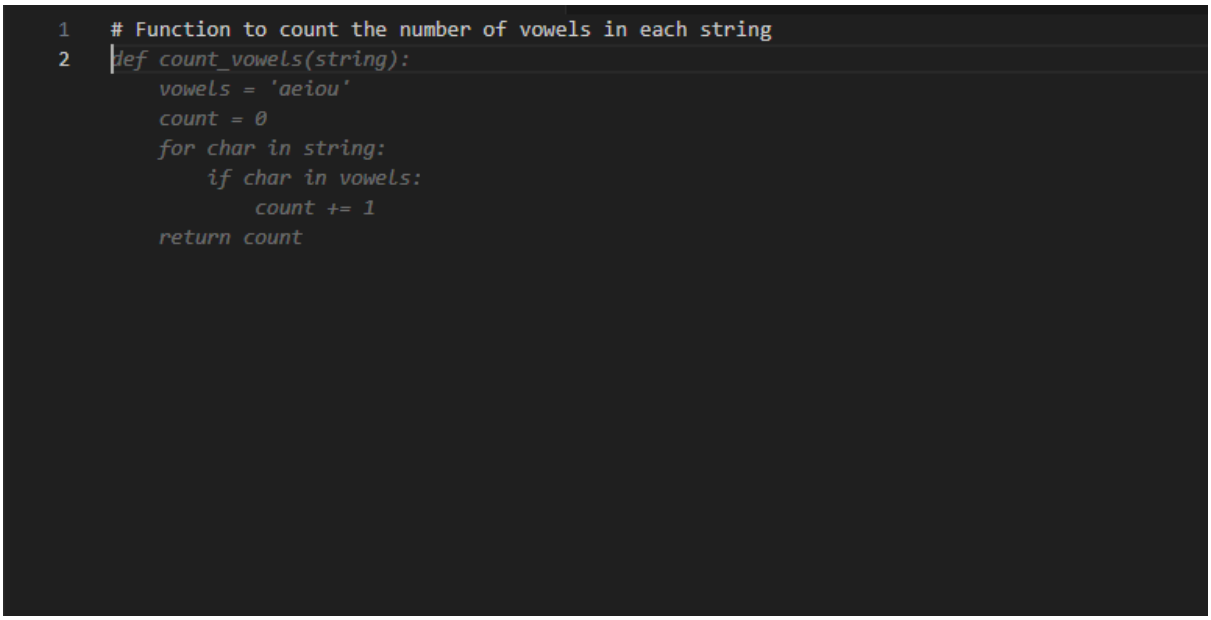
Step 2: Use Copilot to generate the function

2.1 Write a comment describing a function so that Copilot can generate the function for you

Example comment:
 # Function to count the number of vowels in each string



2.2 Press enter after writing the comment and wait for Copilot to suggest a function



2.3 Press tab to accept the suggestion. Copilot will generate a function that loops through the string and counts the vowels.

```python
# Function to count the number of vowels in each string
def count_vowels(string):
    vowels = 'aeiou'
    count = 0
    for char in string:
        if char in vowels:
            count += 1
    return count
```

Step 3: Test the function

3.1 Add the following print statements to test the function with different inputs:

print(count_vowels("hello")) # Expected output: 2
print(count_vowels("Simplilearn")) # Expected output: 4
print(count_vowels("Python")) # Expected output: 1
print(count_vowels("AI-powered coding")) # Expected output: 5

Function to count the number of vowels.py

C: > Users > slp13801 > Downloads > # Function to count the number of vowels.py > ...

```python
# Function to count the number of vowels in each string
def count_vowels(string):
    vowels = 'aeiou'
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    for char in string:
        if char in vowels:
            count += 1
    return count

print(count_vowels("hello"))  # Expected output: 2
print(count_vowels("Simplilearn"))  # Expected output: 4
print(count_vowels("Python"))  # Expected output: 1
print(count_vowels("AI-powered coding"))  # Expected output: 5
```
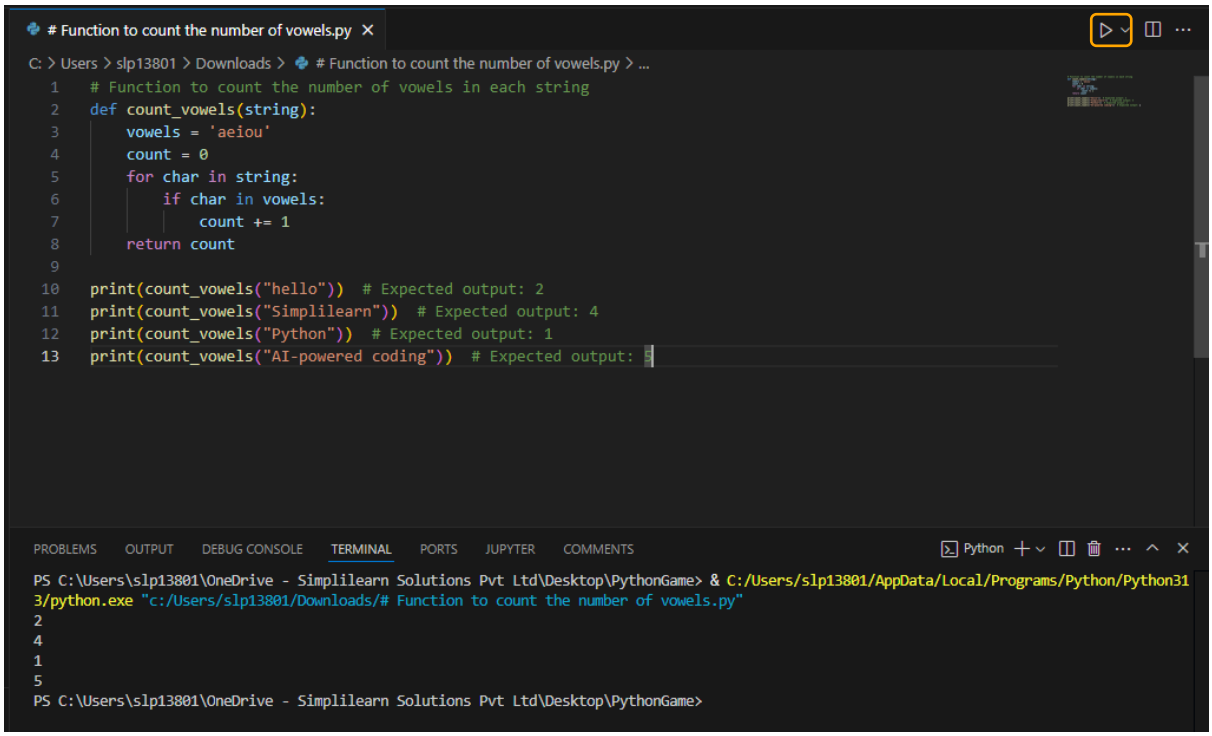

3.2 Click the play button on the top-right corner to run the Python file in VS Code



Note: The output in the terminal window should match the expected result.

By following these steps, you have successfully created a vowel-counting function using GitHub Copilot in VS Code. This demo showcased how Copilot can assist in auto-generating function logic, reducing coding time, and improving efficiency. You also learned how to test and validate AI-generated code to ensure accuracy. You can now experiment with Copilot by modifying the function to count consonants, detect special characters, or handle multilingual text, further enhancing your AI-assisted coding skills.