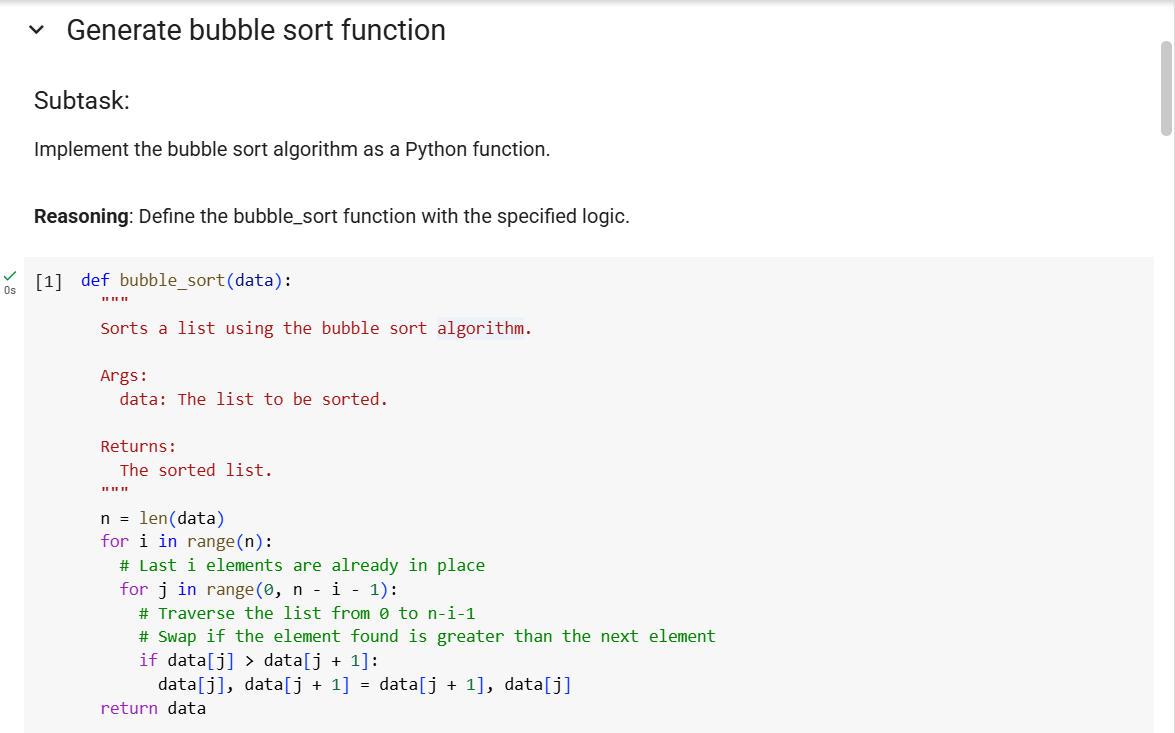
**Assignment-2**

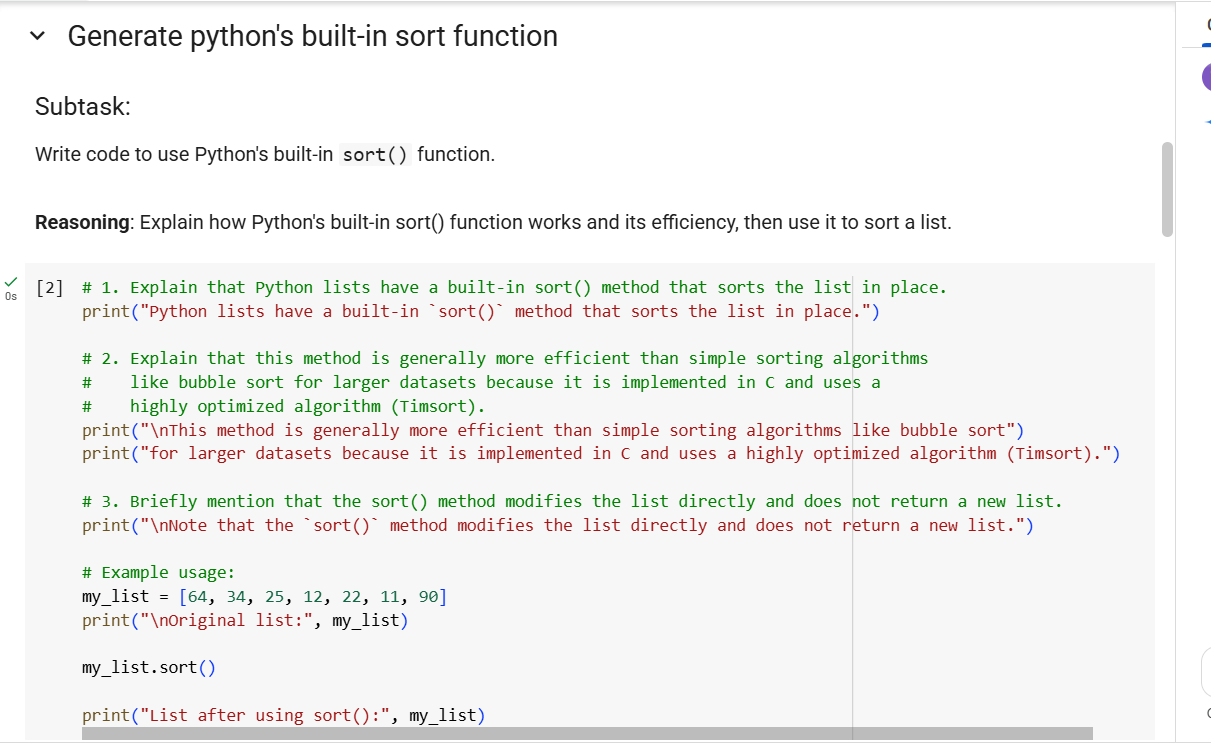
**2403a54071**

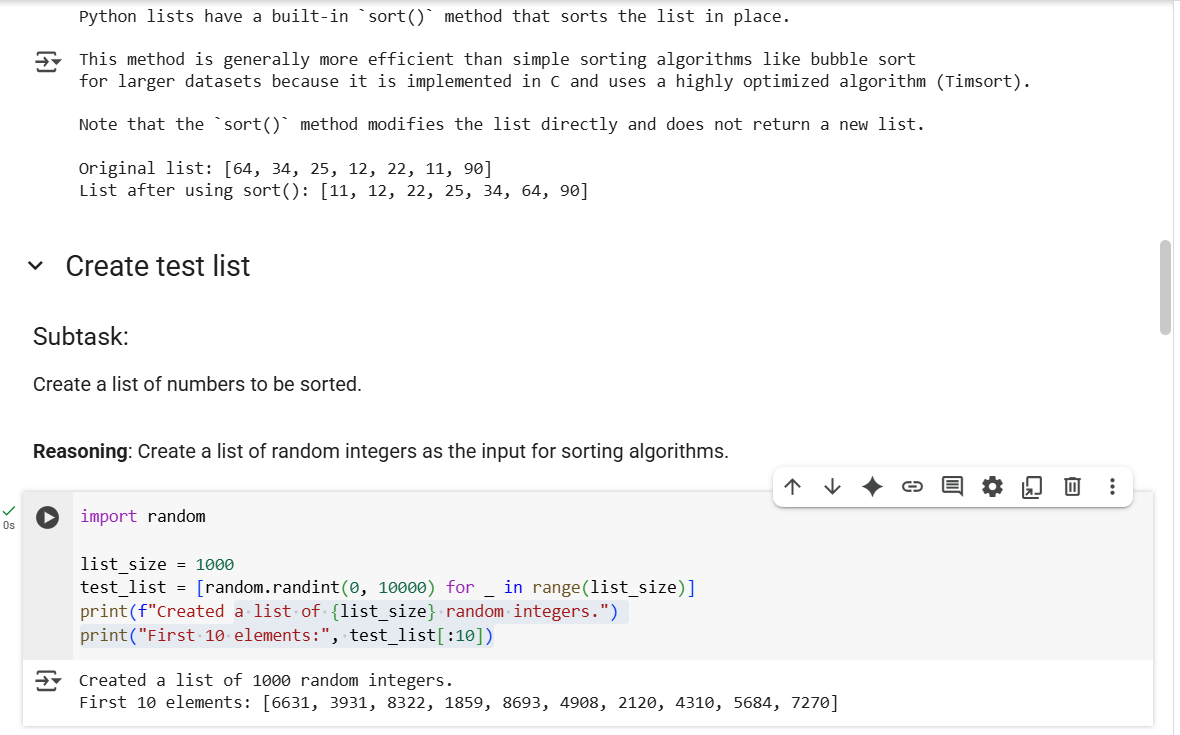
**Task Description #1:**

**•** Open Google Colab and use Google Gemini to generate Python code that performs sorting of a list using both the bubble sort algorithm and Python’s built-in sort() function. Compare the two implementations.

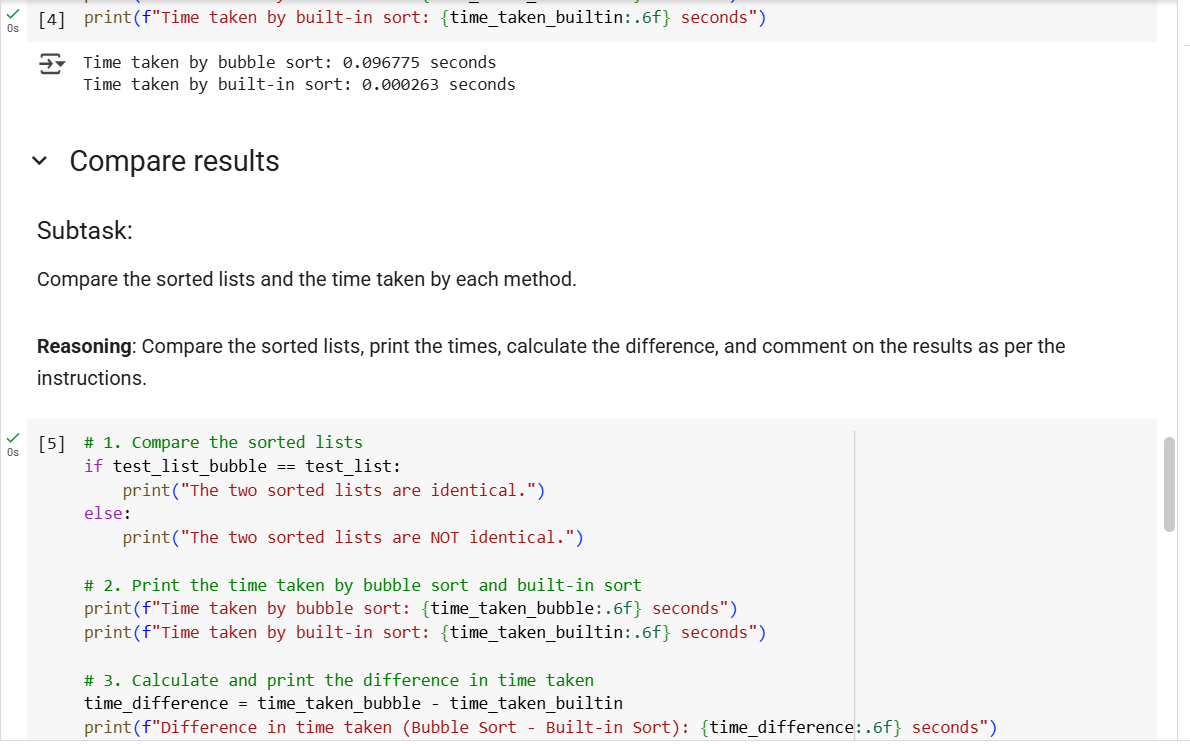
**Code:**

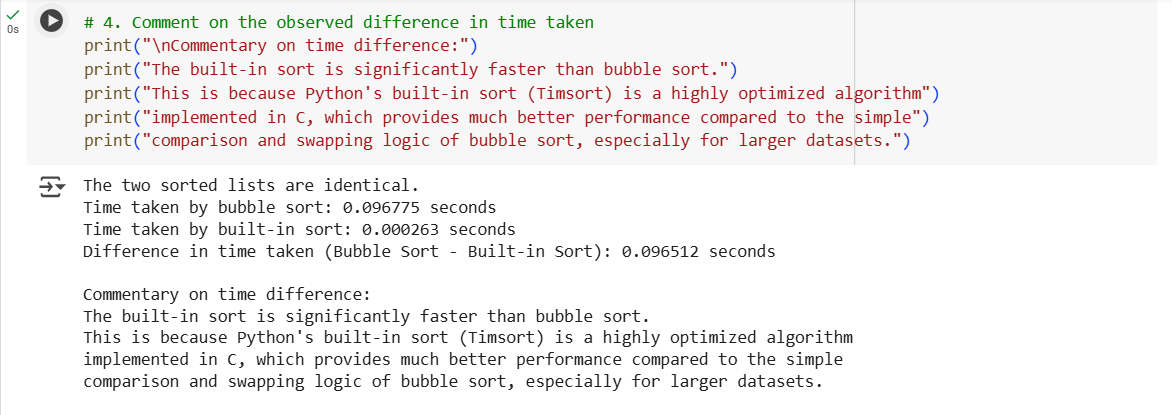




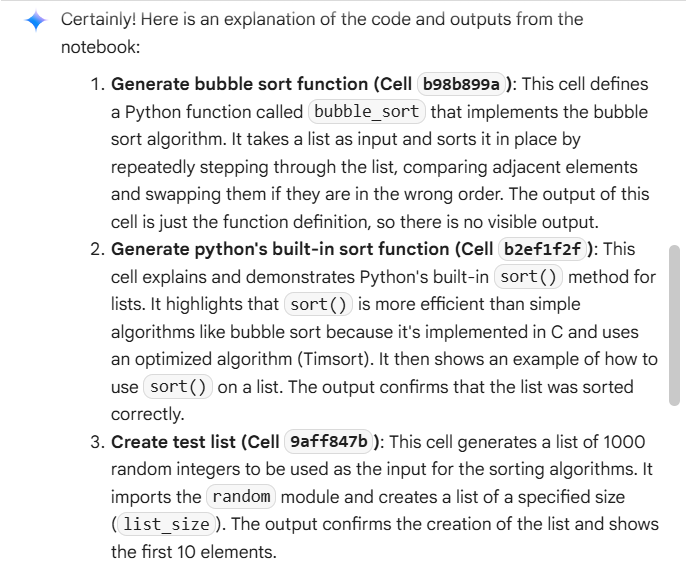


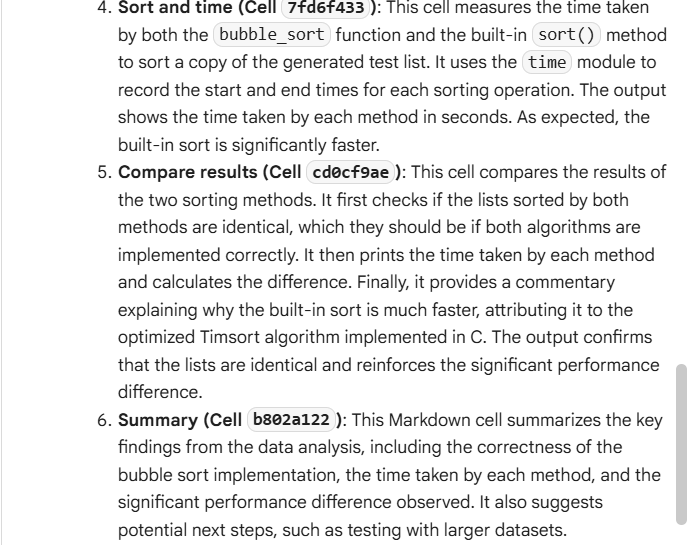






**Explanation:**

****

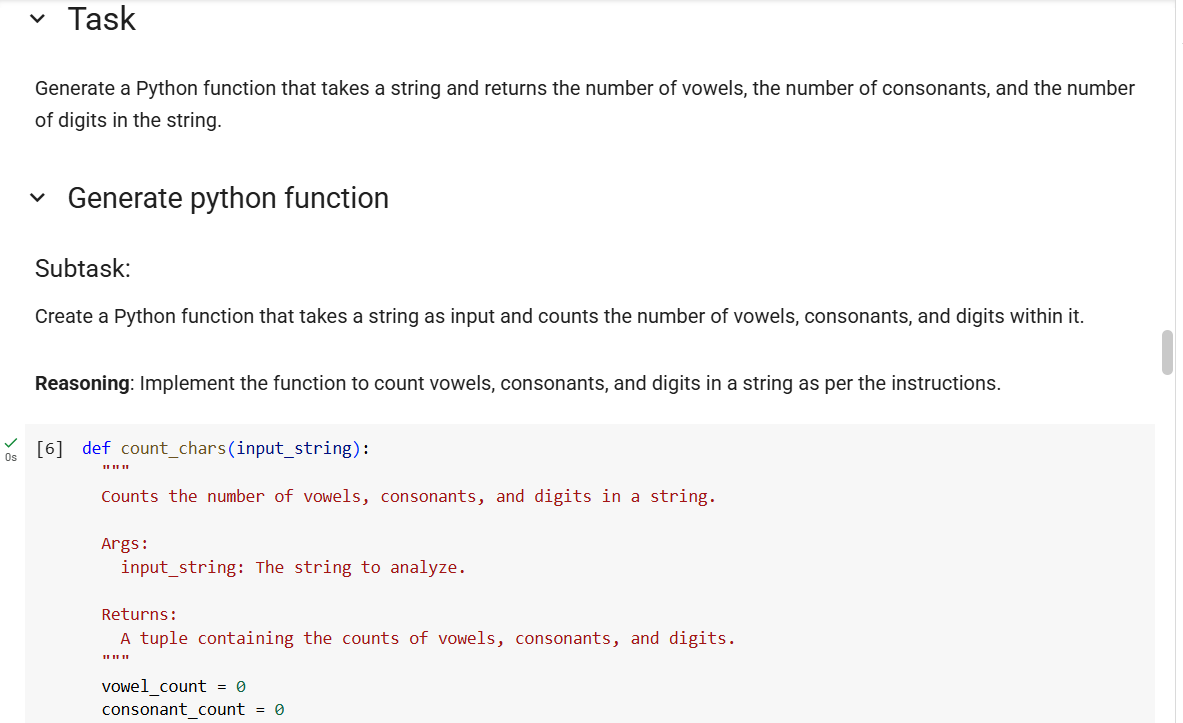
****

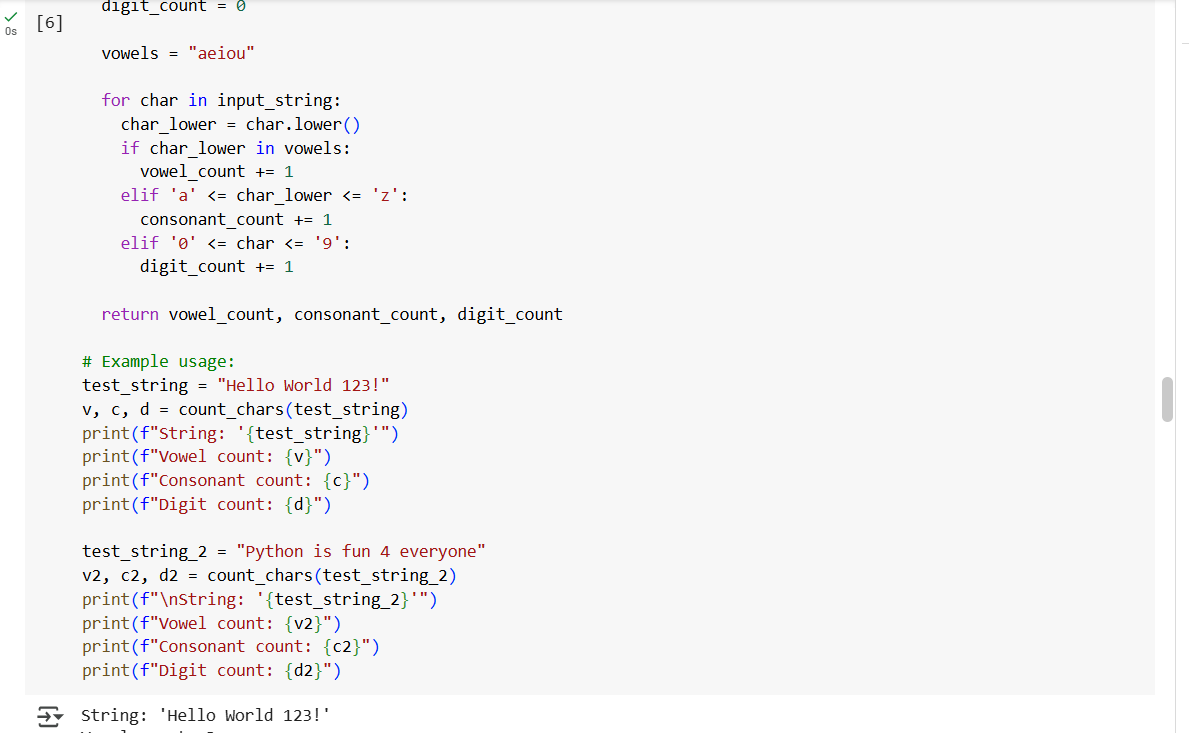
**Task Description #2:**

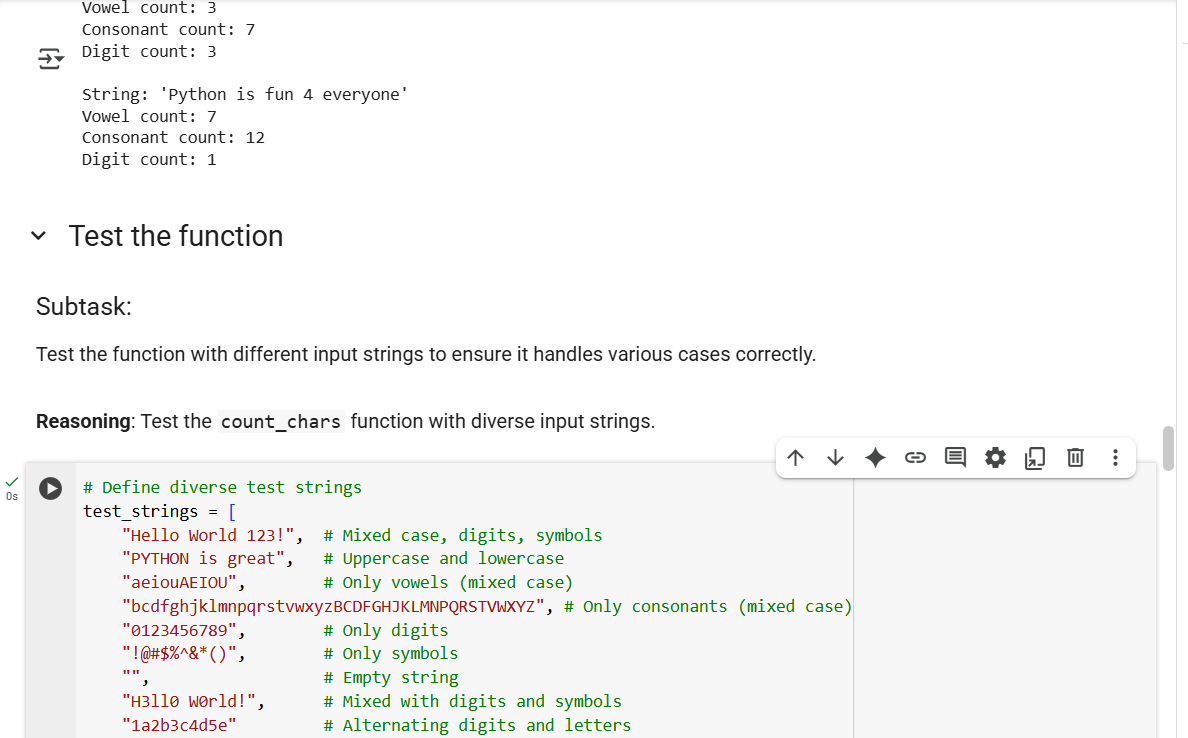
**•** In Colab, use Google Gemini to generate a Python function that takes a string and returns:

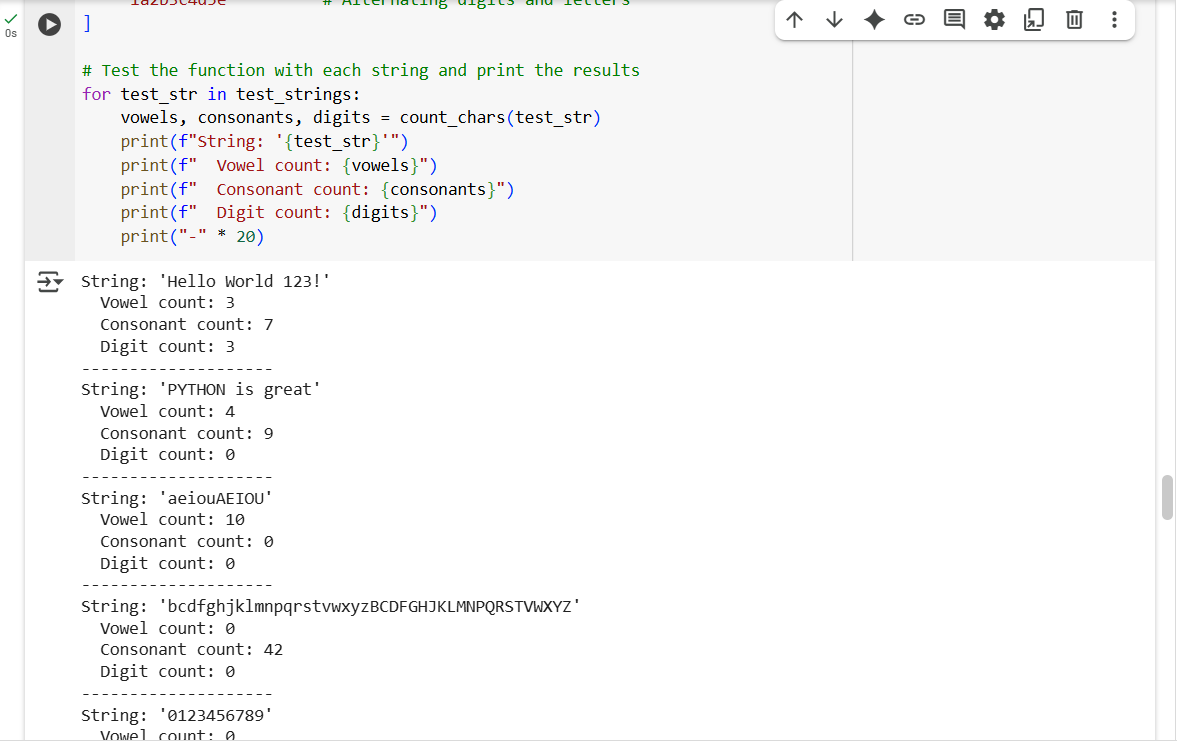
The number of vowels, The number of consonants, The number of digits in the string.

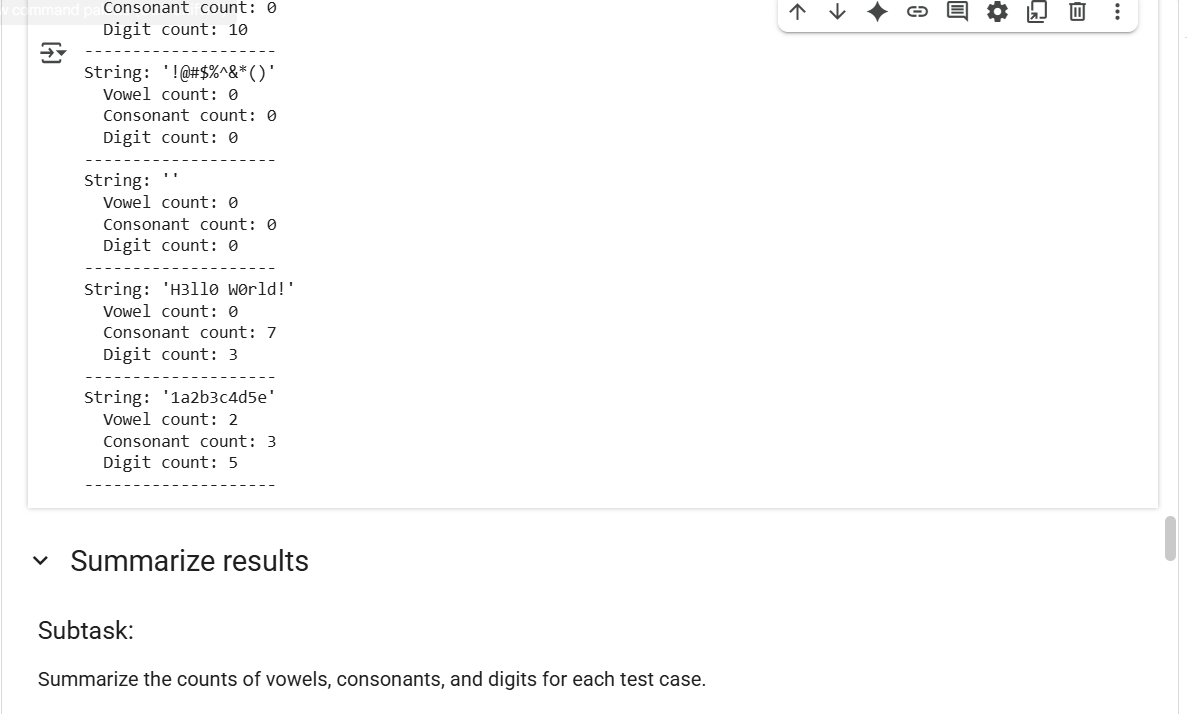
**Code:**

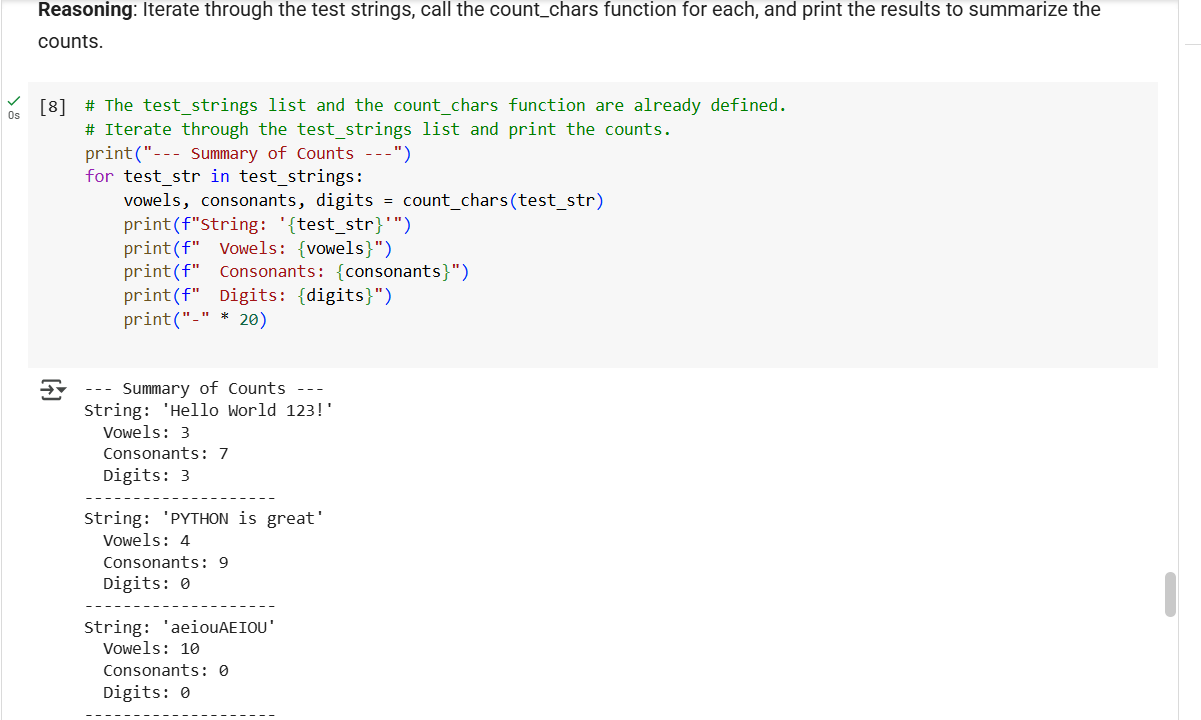


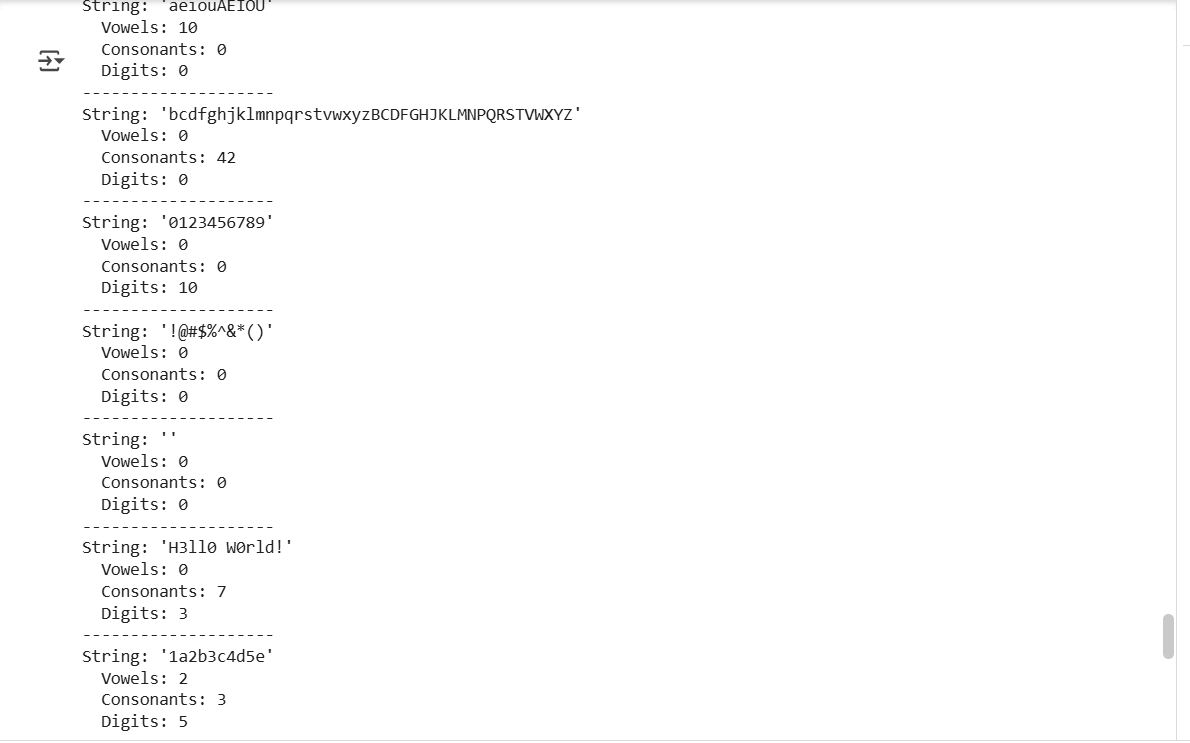


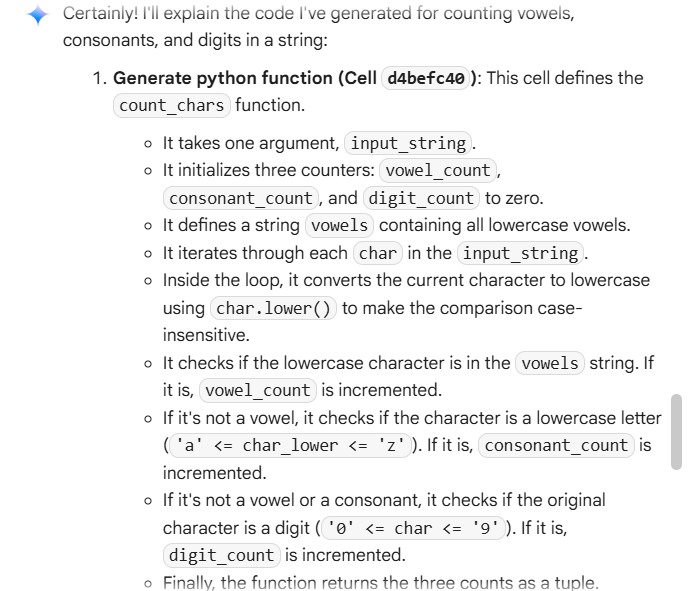
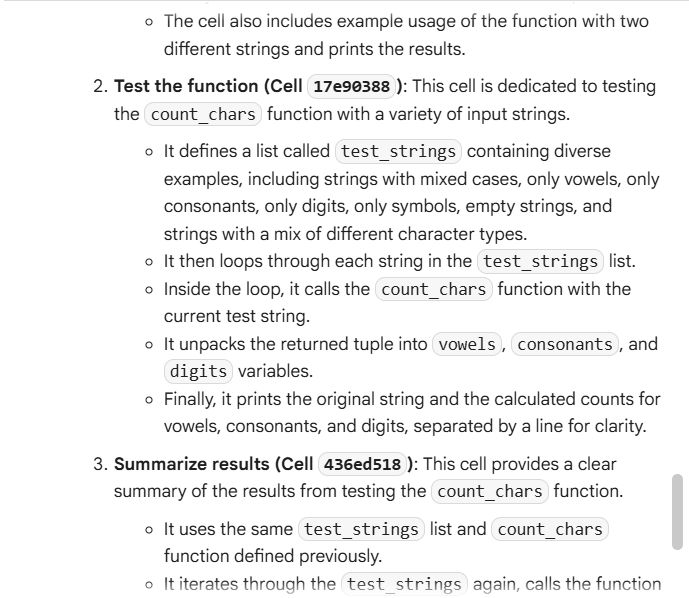


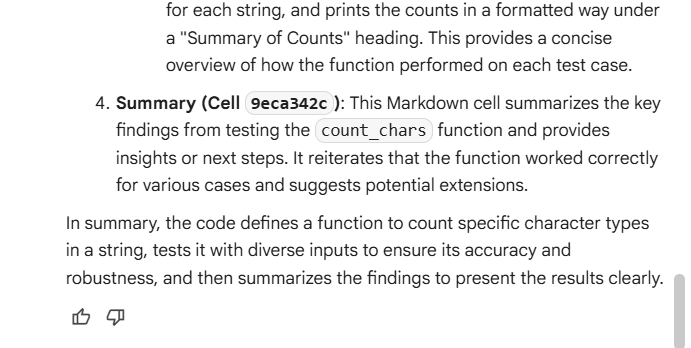








**Explanation:  
**

****

**Task Description #3:**

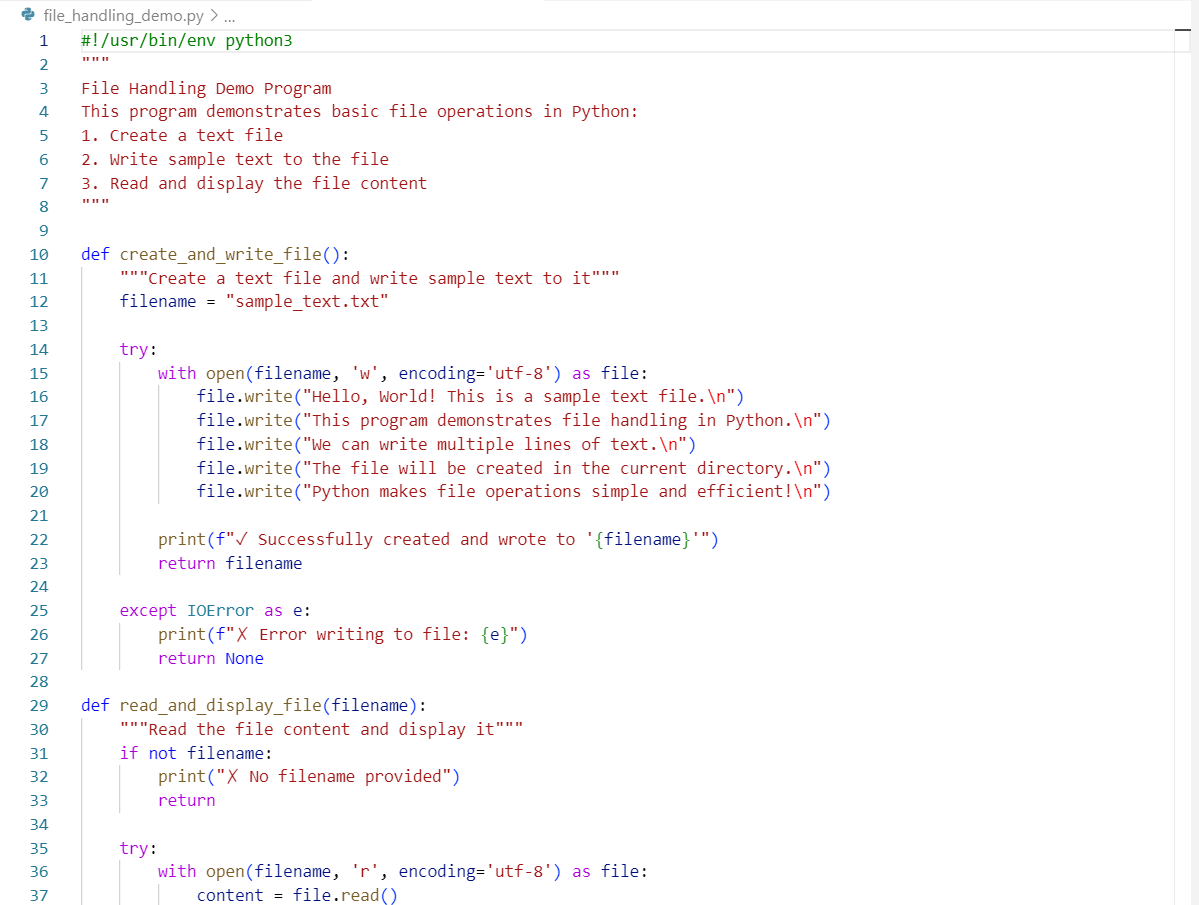
• Install and set up Cursor AI. Use it to generate a Python program that performs file handling:

* Create a text file.
* Write sample text.
* Read and display the content.

**Code:**

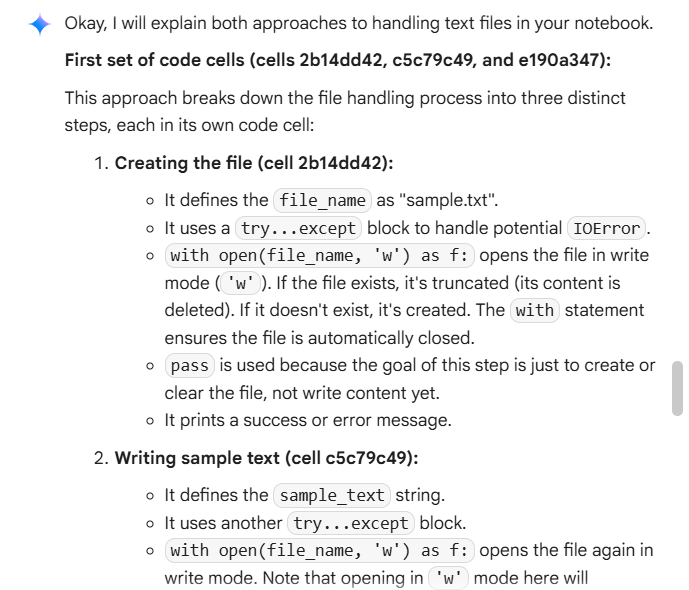


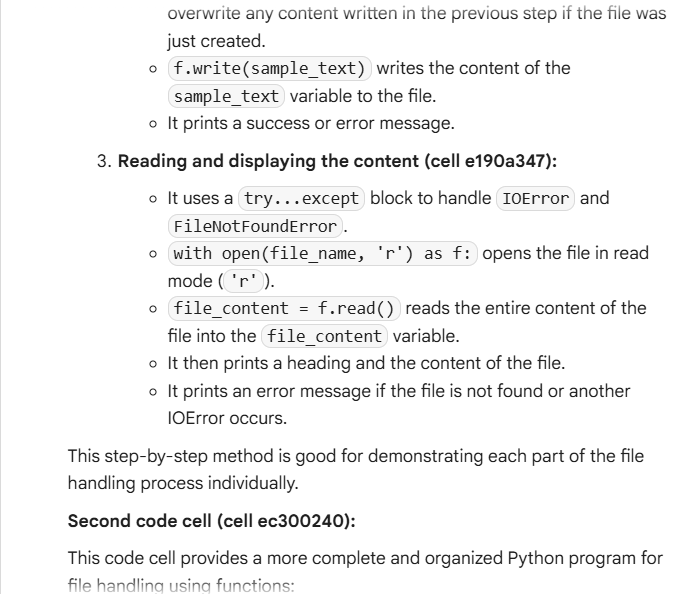


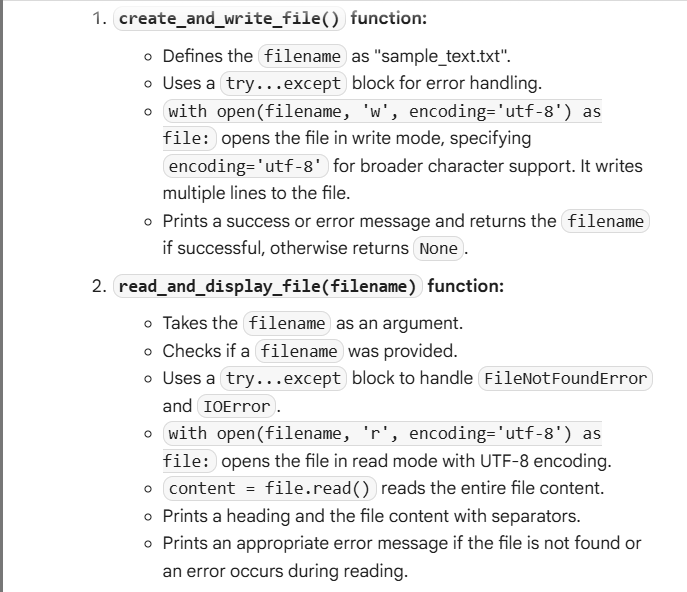




**Explanation:**

****

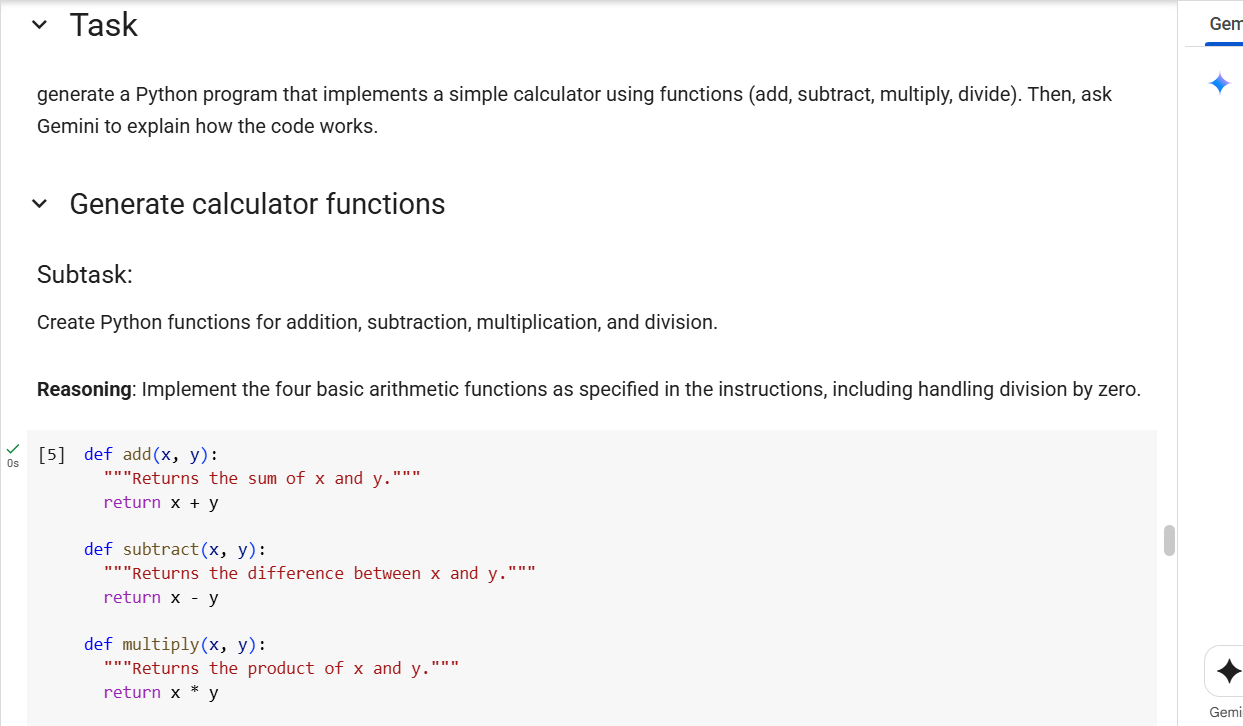
****

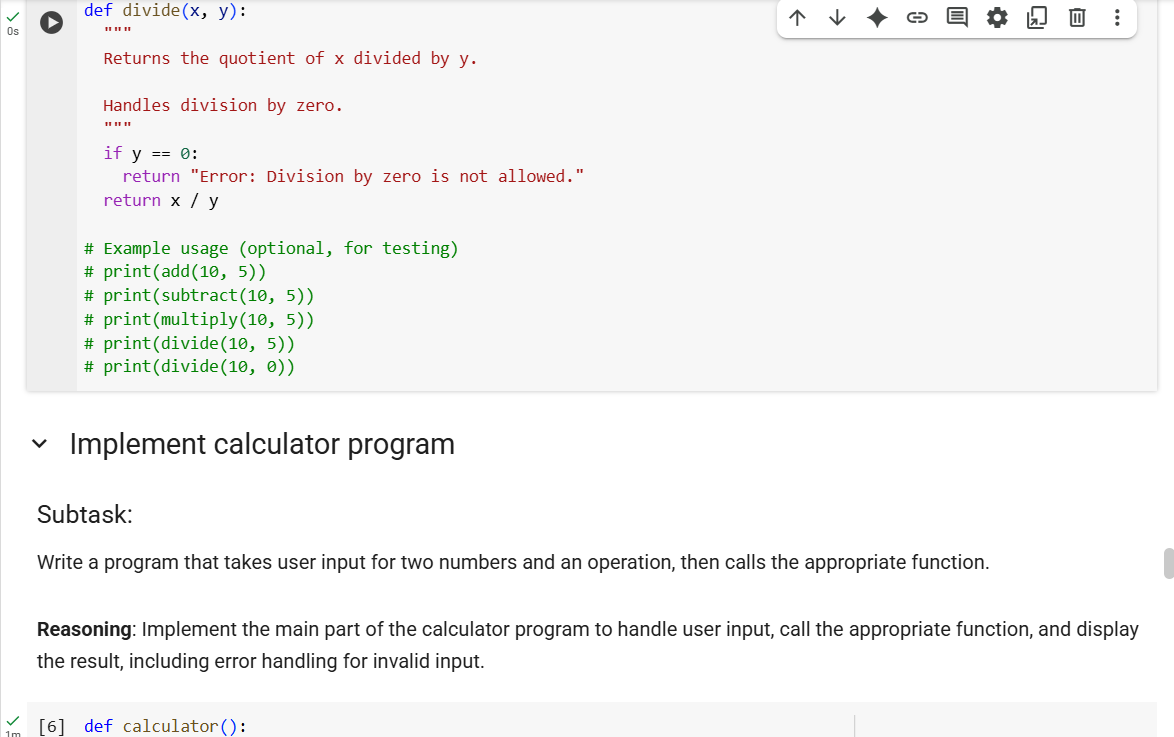
****

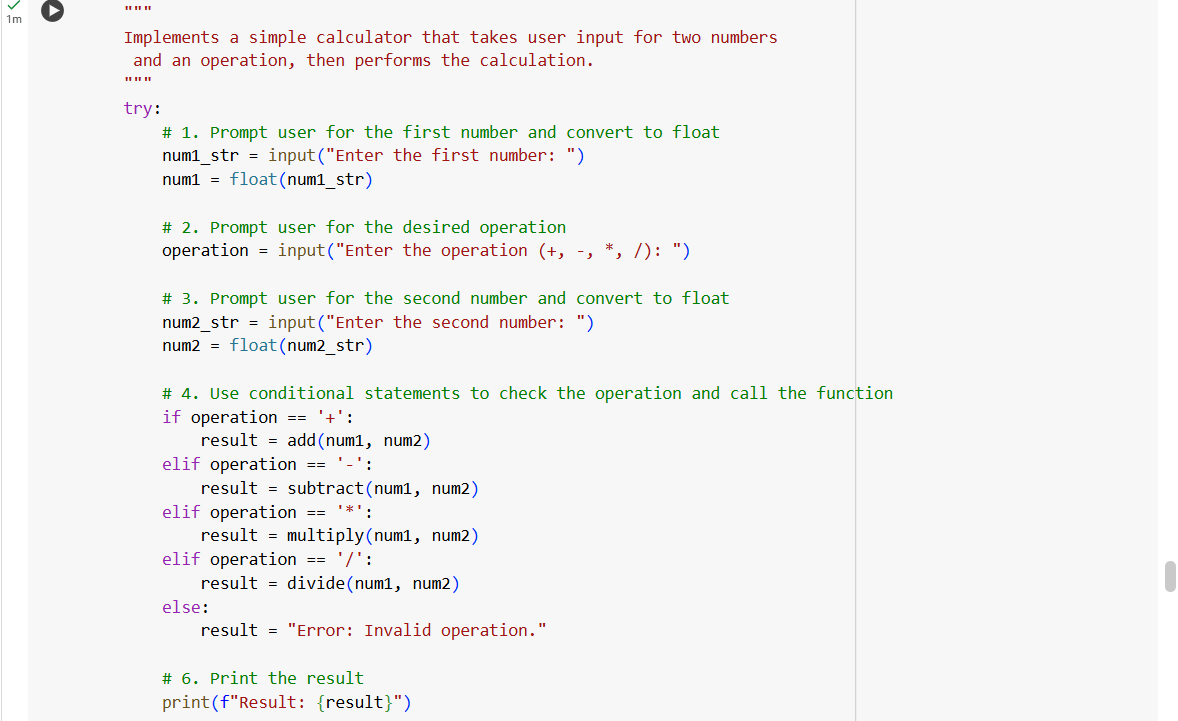
****

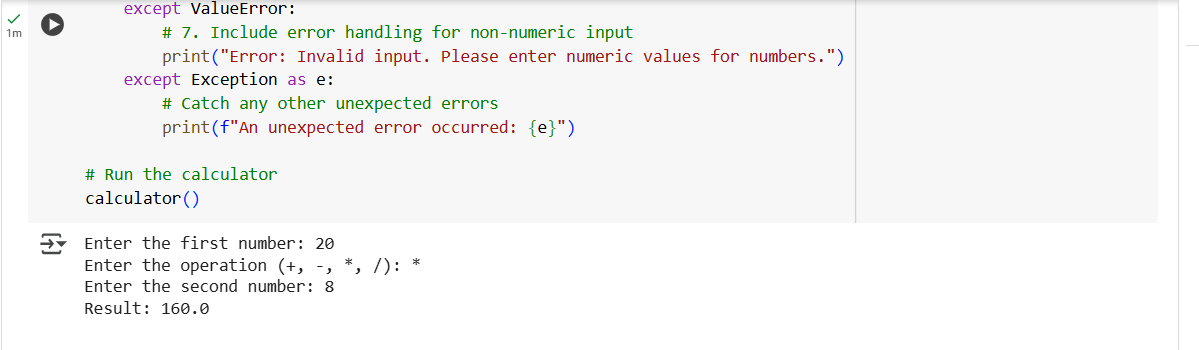
**Task Description #4:**

• Ask Google Gemini to generate a Python program that implements a simple calculator using functions (add, subtract, multiply, divide). Then, ask Gemini to explain how the code works.

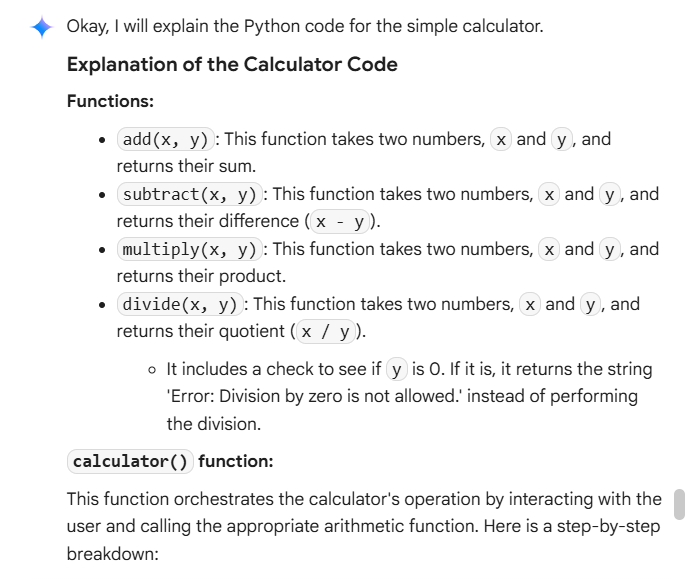


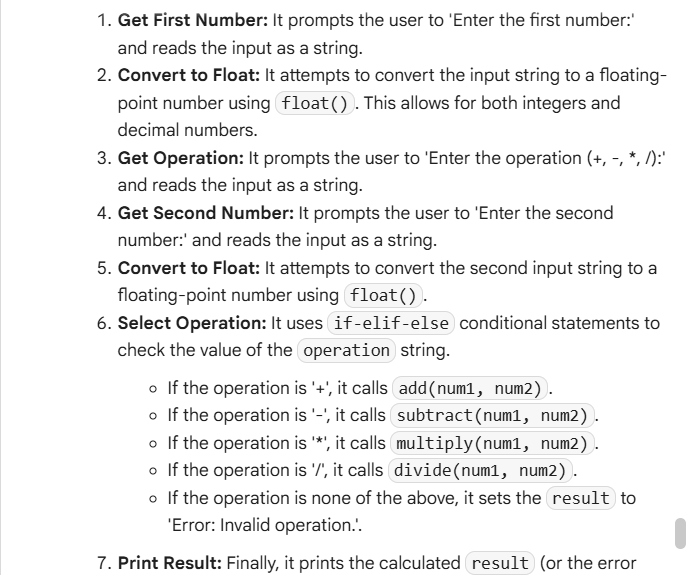


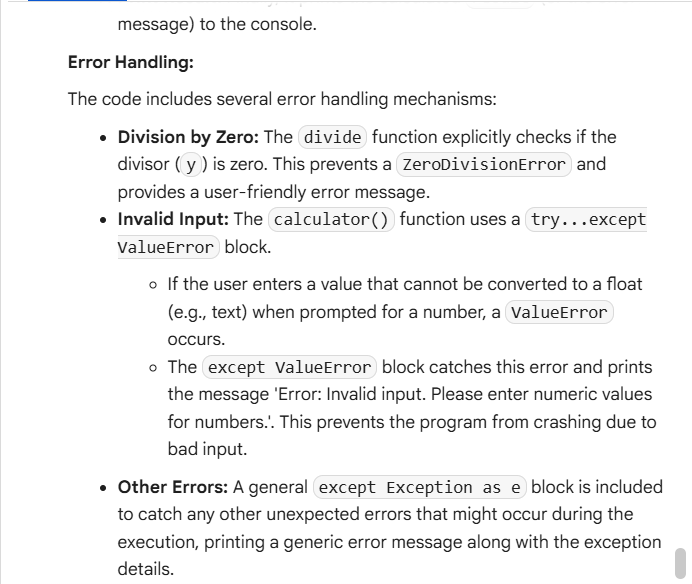


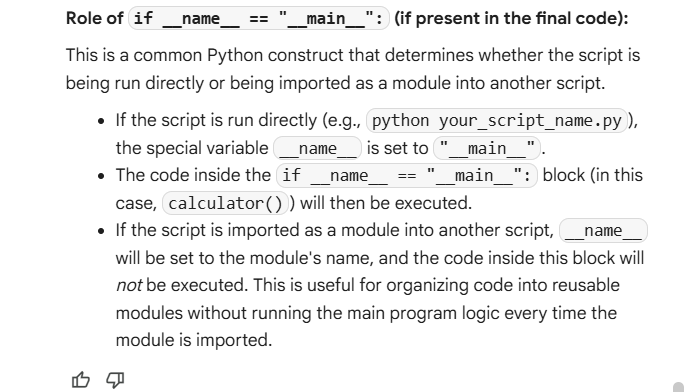


**Explanation:**

****

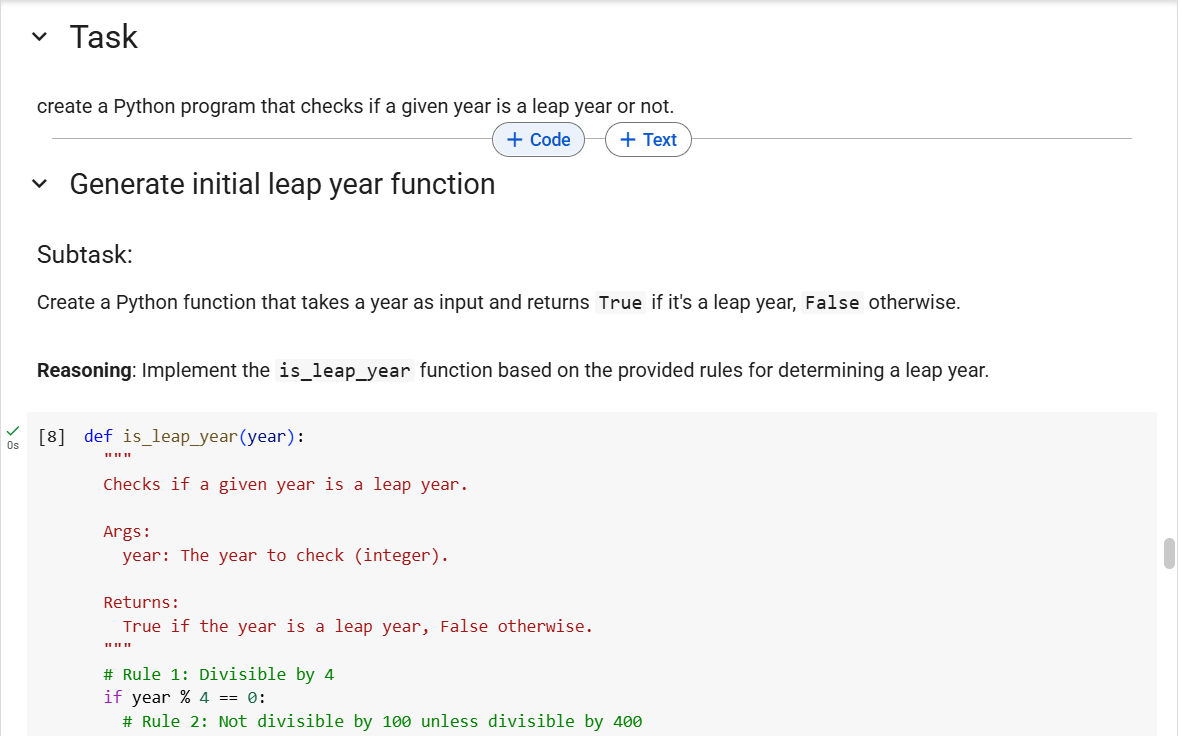
****

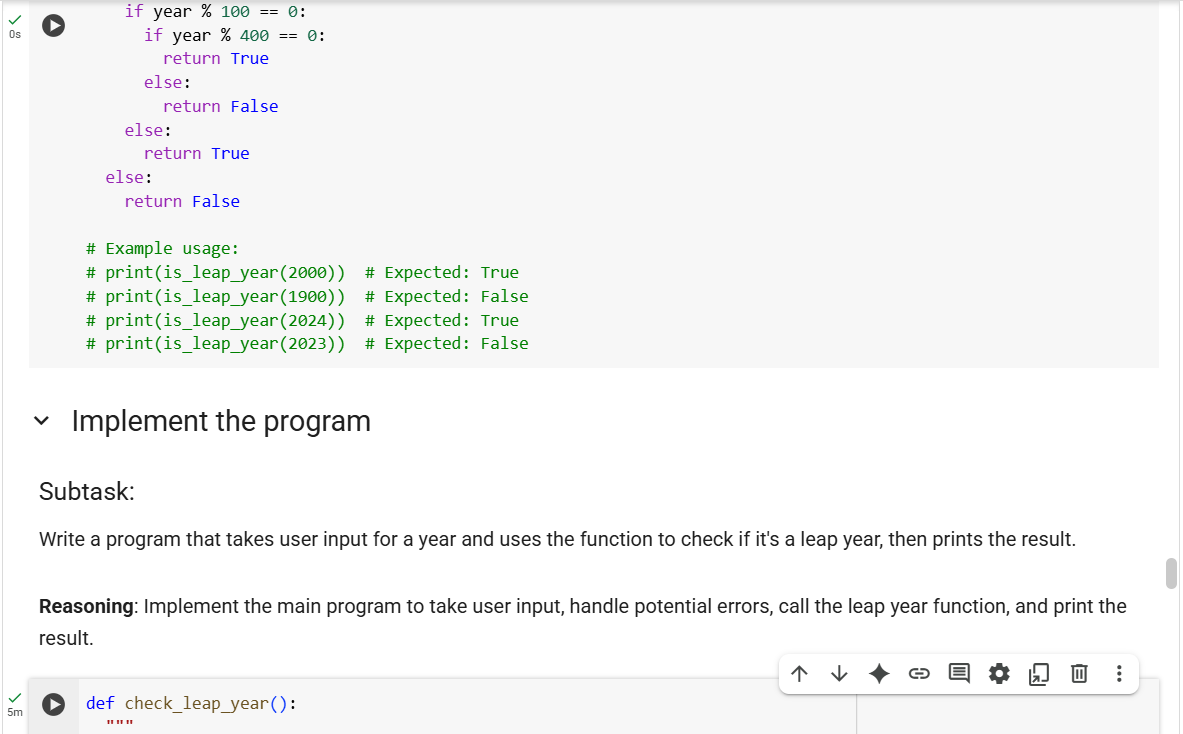
****

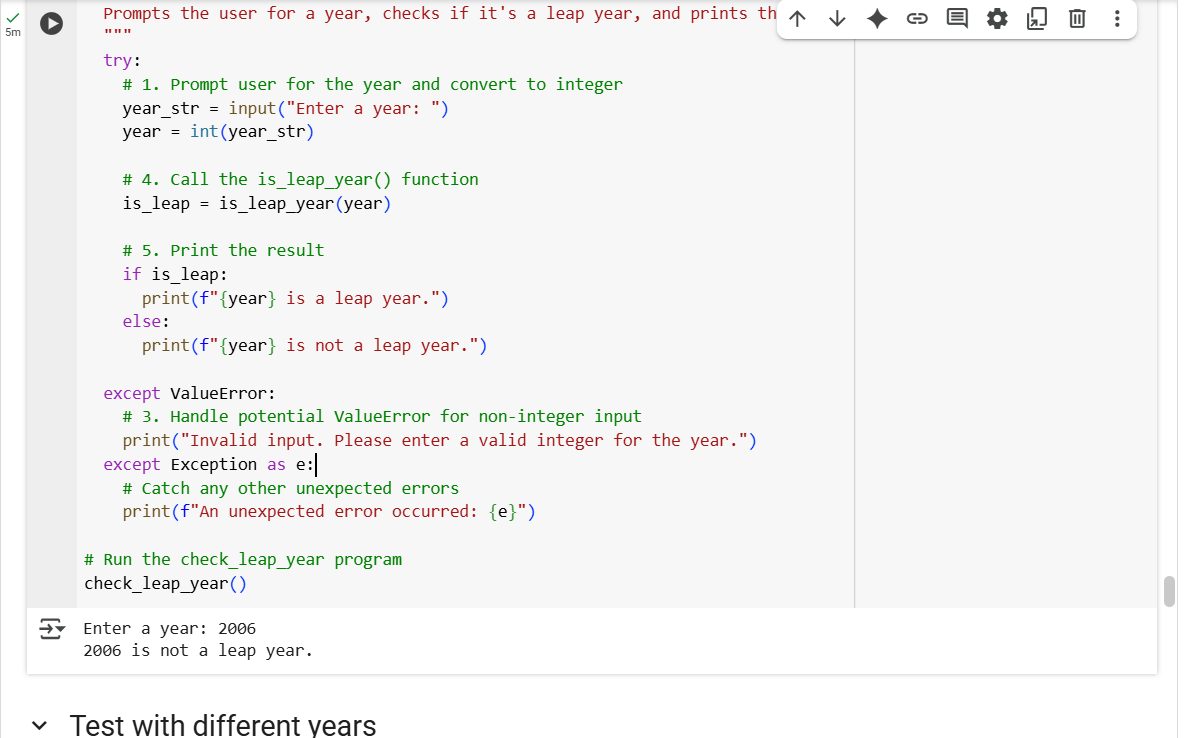
****

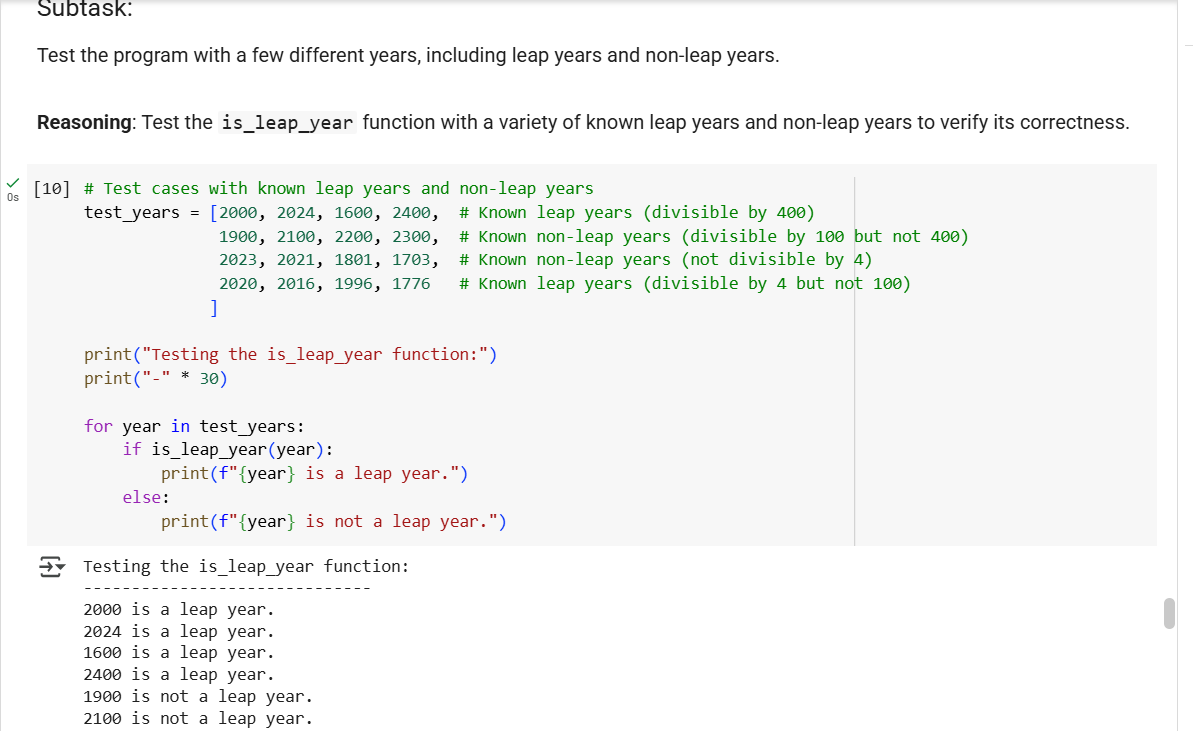
**Task Description #5:**• Use Cursor AI to create a Python program that checks if a given year is a leap year or not. Try different prompt styles and see how Cursor modifies its code suggestions.

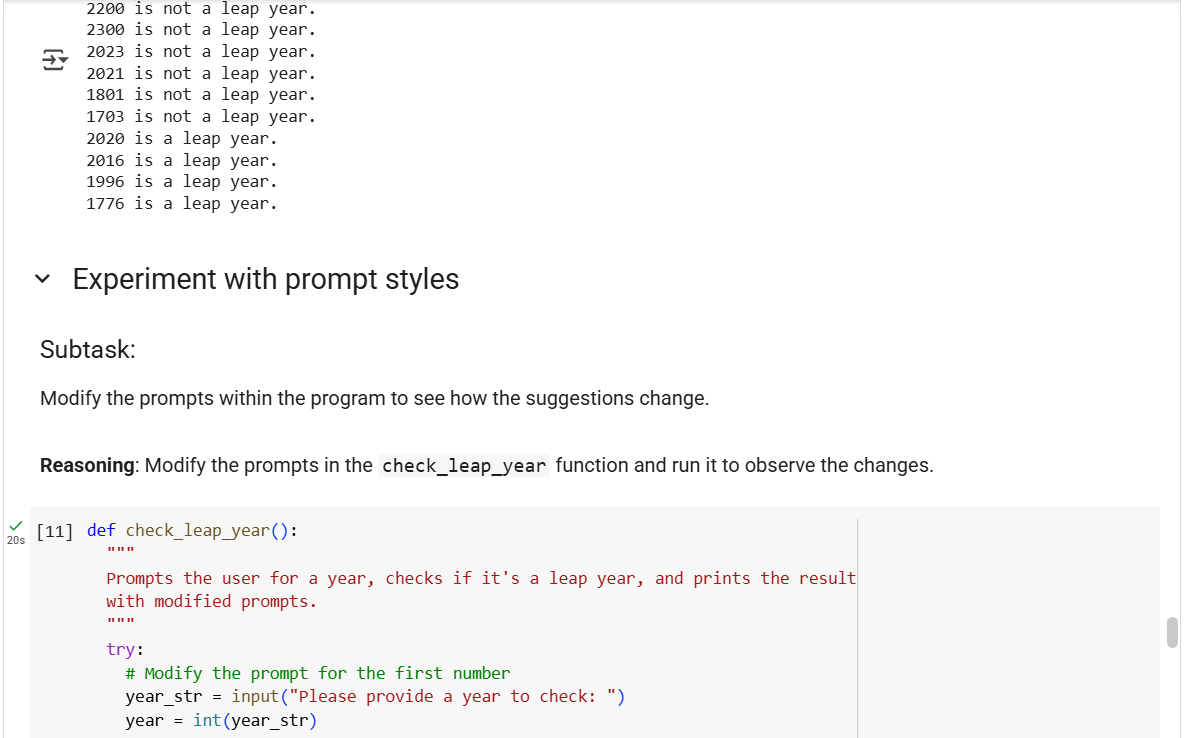
**Code:**

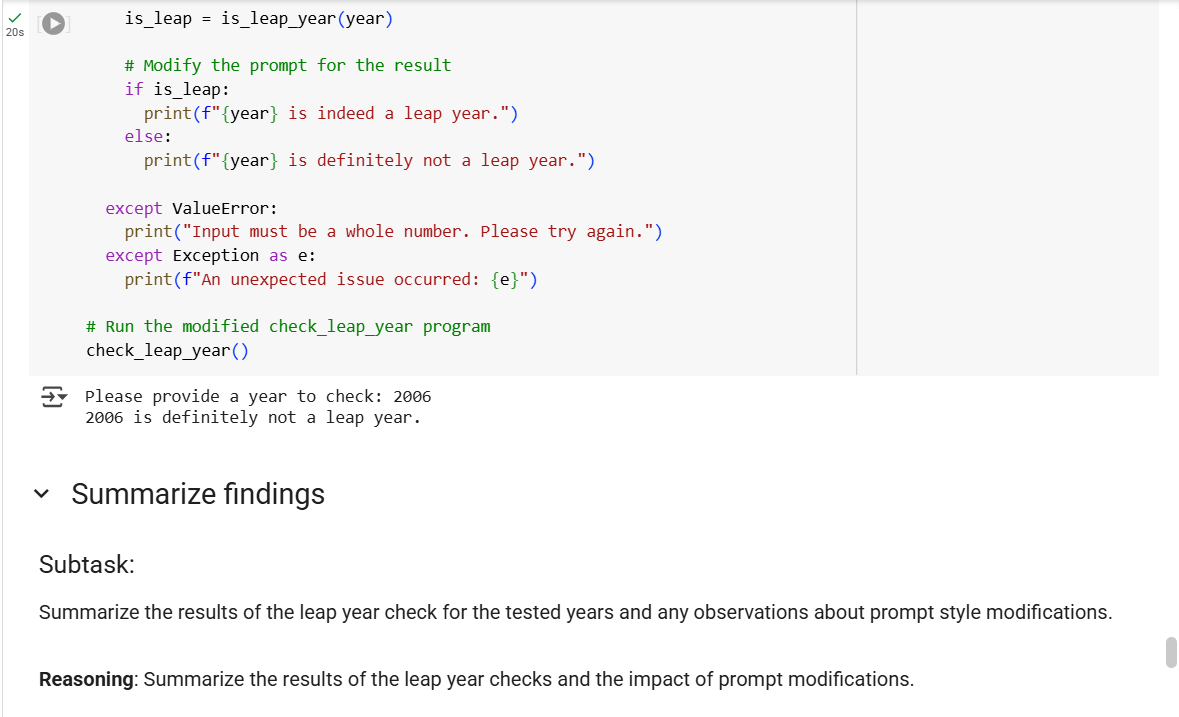
****

****

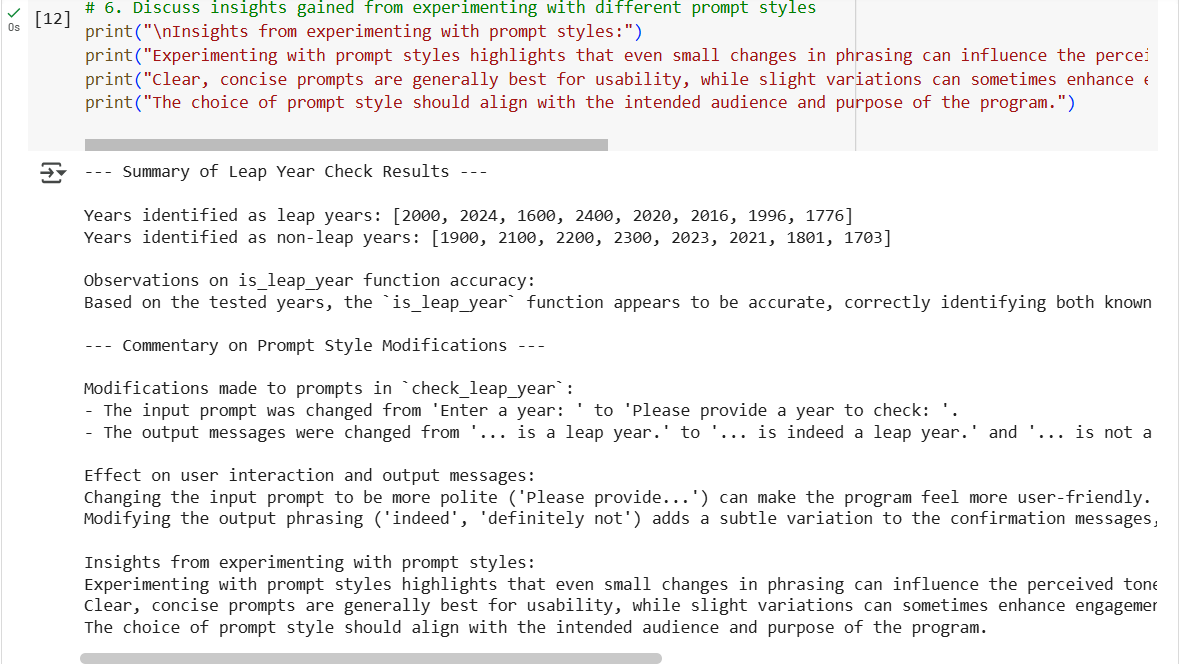
****

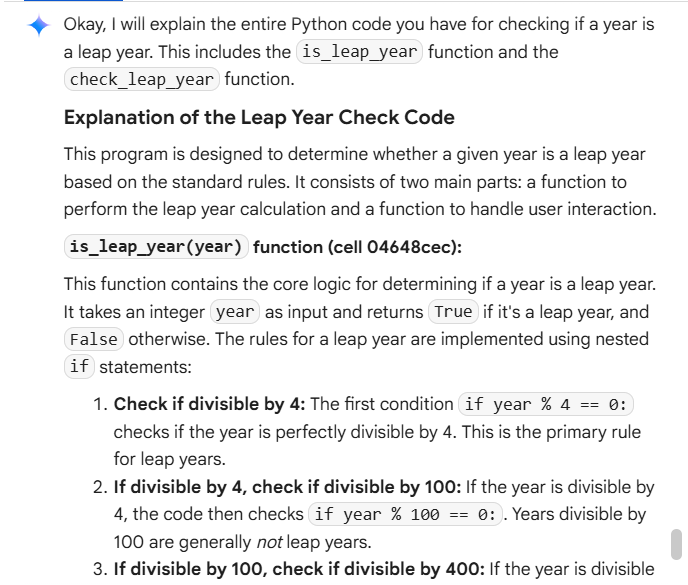
****

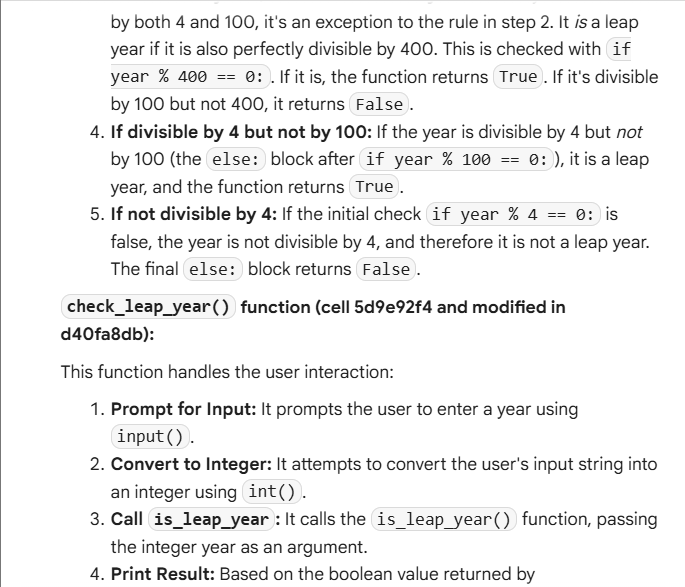
****

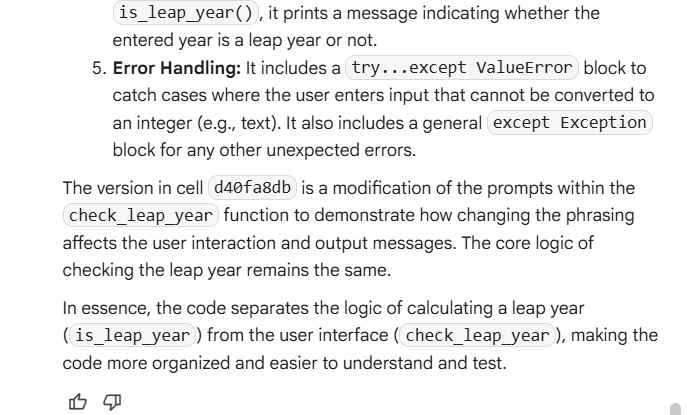
****

****

****

**Explanation:**

****

****