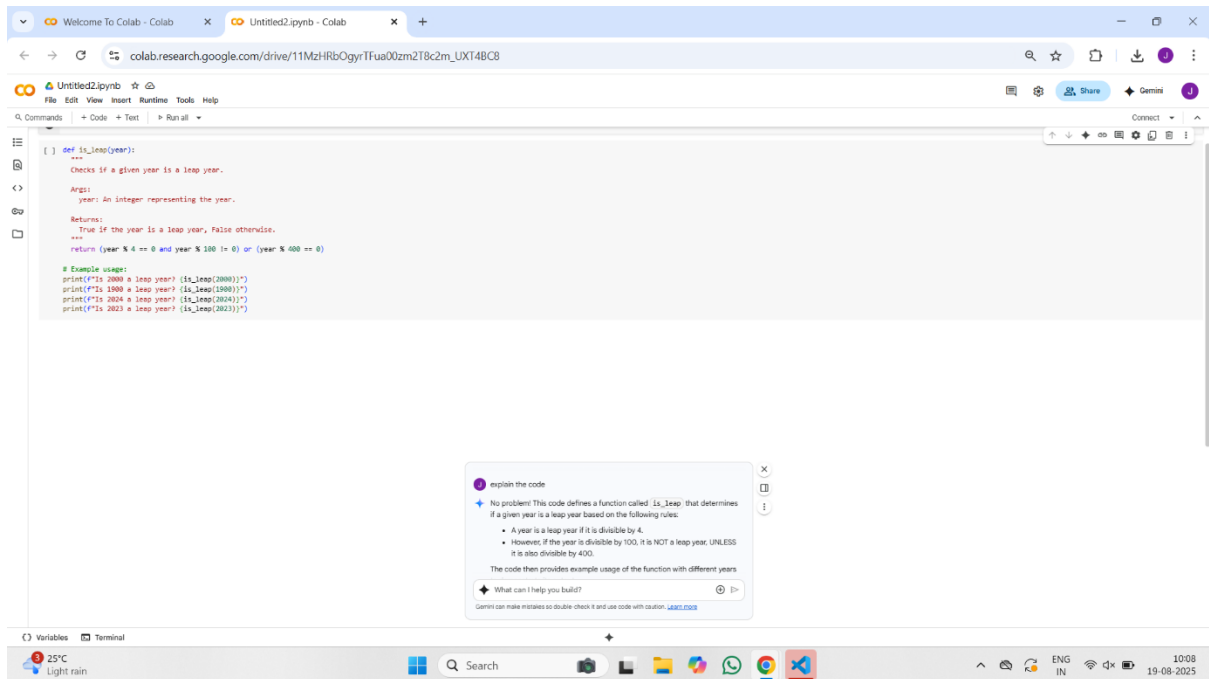


lab assignment 4.3

NAME: N.JYOSHNA SRI

HALL NO:2403A52106

TASK-1:



The screenshot shows a Google Colab notebook with a Python function `is_leap(year)` that checks if a given year is a leap year. The function uses the following logic: a year is a leap year if it is divisible by 4, but not by 100, unless it is also divisible by 400. The code includes example usage and a Gemini AI chat window explaining the logic.

```
[ ] def is_leap(year):  
    """  
    Checks if a given year is a leap year.  
    Args:  
        year: An integer representing the year.  
    Returns:  
        True if the year is a leap year, False otherwise.  
    """  
    return (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0)  
  
# Example usage:  
print("Is 2000 a leap year?", is_leap(2000))  
print("Is 1900 a leap year?", is_leap(1900))  
print("Is 2004 a leap year?", is_leap(2004))  
print("Is 2023 a leap year?", is_leap(2023))
```

explain the code

No problem! This code defines a function called `is_leap` that determines if a given year is a leap year based on the following rules:

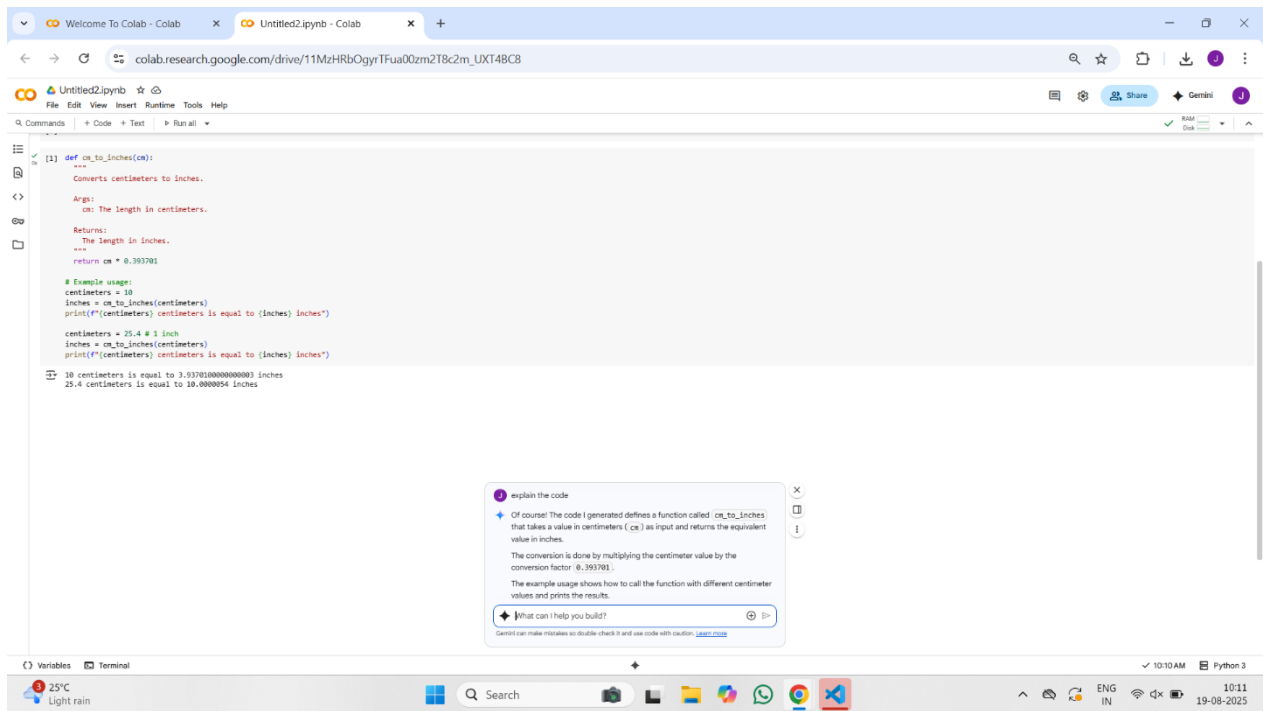
- A year is a leap year if it is divisible by 4.
- However, if the year is divisible by 100, it is NOT a leap year, UNLESS it is also divisible by 400.

The code then provides example usage of the function with different years.

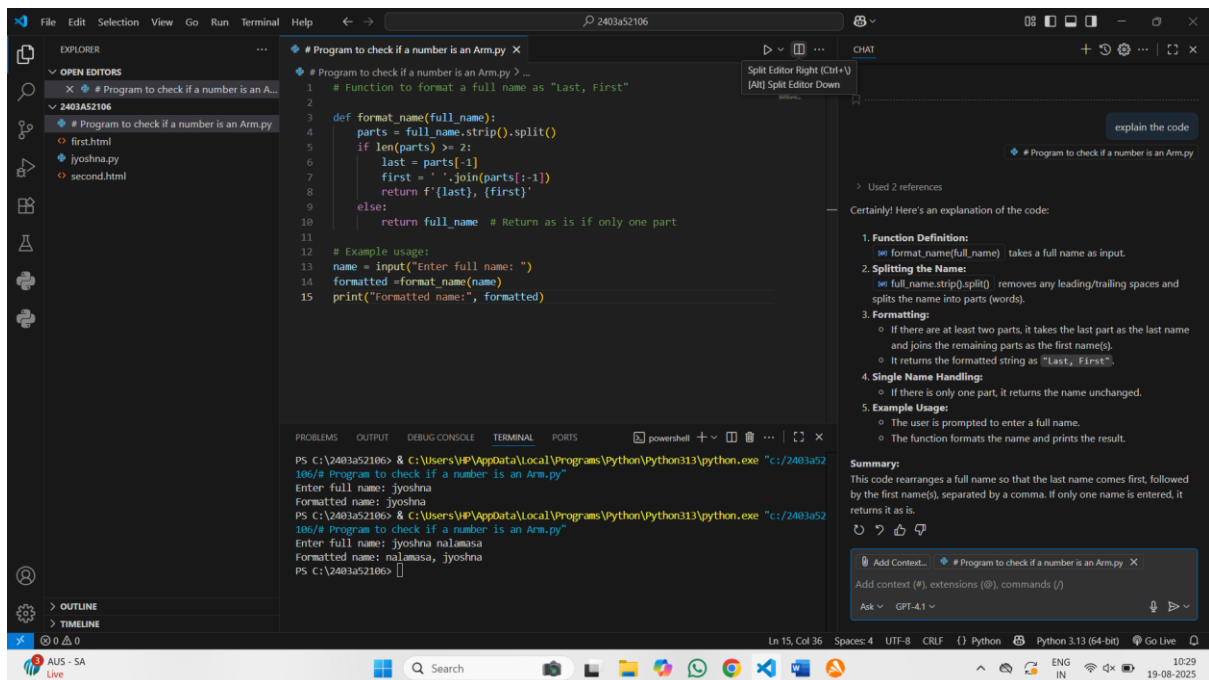
What can I help you build?

Gemini can make mistakes so double-check it and use code with caution. [Learn more](#)

TASK-2:



Task-3:



Task-4:

File Edit Selection View Go Run Terminal Help

2403a52106

EXPLORER

OPEN EDITORS

Program to check if a number is an Arm.py

first.html

iyoshna.py

second.html

Program to check if a number is an Arm.py

12 # Example usage:

13 name = input("Enter full name: ")

14 formatted = format_name(name)

15 print("Formatted name:", formatted)

16

17 #Function to count the number of vowels in a string

18

19 def count_vowels(s):

20 vowels = 'aeiouAEIOU'

21 count = 0

22 for char in s:

23 if char in vowels:

24 count += 1

25 return count

26

27 # Example usage:

28 text = input("Enter a string: ")

29 vowel_count = count_vowels(text)

30 print("Number of vowels:", vowel_count)

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

powerShell

PS C:\2403a52106> & C:\Users\VP\AppData\Local\Programs\Python\Python313\python.exe "c:/2403a52106/# Program to check if a number is an Arm.py"

File "c:/2403a52106/# Program to check if a number is an Arm.py", line 17

Function to count the number of vowels in a string

AA

SyntaxError: invalid syntax

PS C:\2403a52106> & C:\Users\VP\AppData\Local\Programs\Python\Python313\python.exe "c:/2403a52106/# Program to check if a number is an Arm.py"

Enter full name: iyoshna

Formatted name: iyoshna

Enter a string: iyoshna

Number of vowels: 2

PS C:\2403a52106> |

CHAT

Program to check if a number is an Arm.py

Used 2 references

Certainly! Here's an explanation of your code:

1. format_name Function

- Purpose:** Formats a full name as "Last, First".
- How it works:**
 - Splits the input name into parts.
 - If there are at least two parts, it takes the last part as the last name and the rest as the first name(s).
 - Returns the formatted string "Last, First".
 - If only one part is given, it returns the name unchanged.

2. count_vowels Function

- Purpose:** Counts the number of vowels in a string.
- How it works:**
 - Iterates through each character in the input string.
 - Checks if the character is a vowel (a, e, i, o, u, case-insensitive).
 - Increments a counter for each vowel found.
 - Returns the total count.

3. Example Usage

- Prompts the user to enter a full name and prints the formatted result.
- Prompts the user to enter a string and prints the number of vowels in it.

Summary:

The code provides two functions: one for formatting names and one for counting vowels. Both functions are designed to be user-friendly and easy to use.

Add Context... # Program to check if a number is an Arm.py

Add context (#), extensions (@), commands (/)

Ask GPT-4.1

Ln 17, Col 2 Spaces 4 UTF-8 CRLF Python Python 3.13 (64-bit) Go Live

26°C Cloudy

Search

10:34 19-08-2025