

AI ASSISTED CODING

LAB ASSIGNMENT – 7.3

SAHASRA VEERAGONI

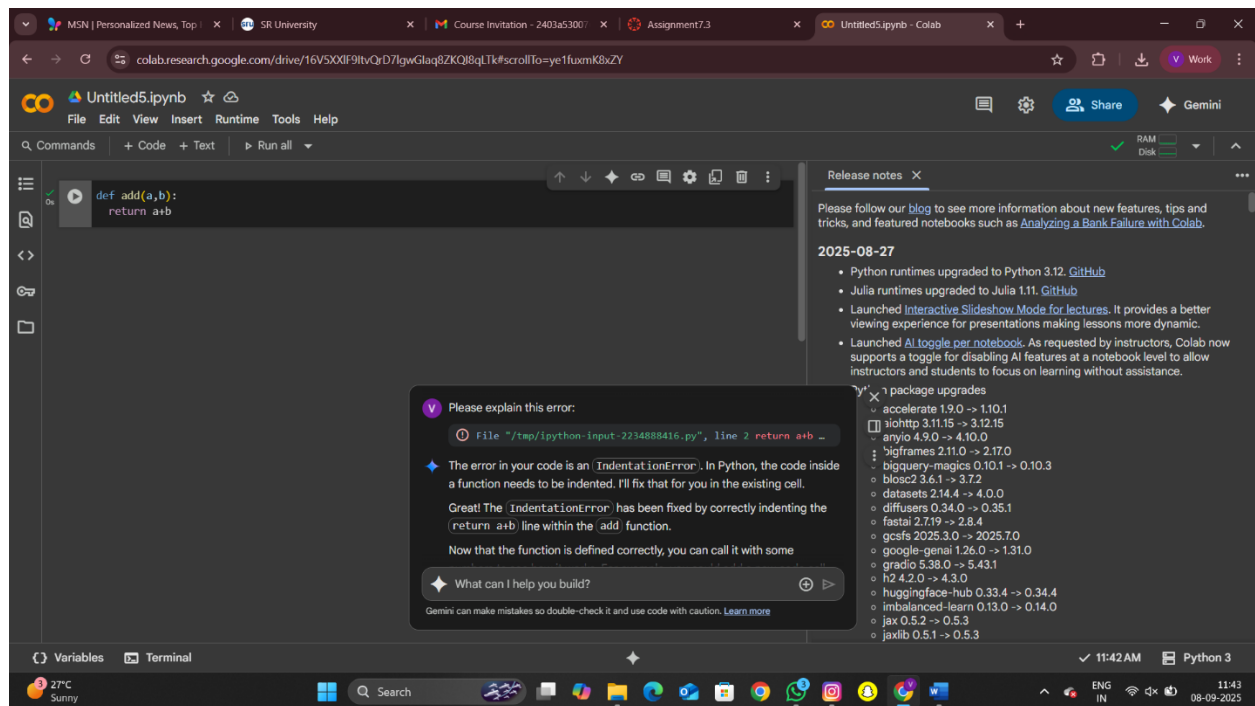
2403A53007

24BTCAICYB01-2-1

#TASK-1

- Paste a function with a missing colon (add(a, b)), and let AI fix the syntax error

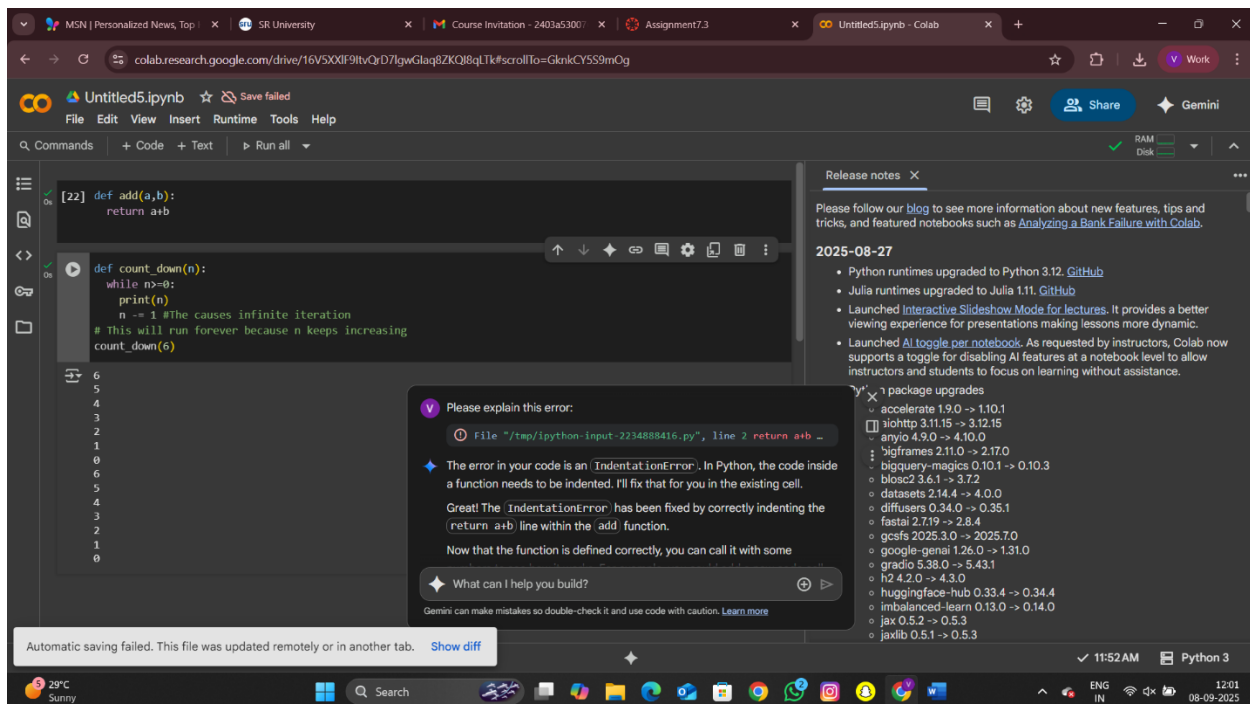
OUTPUT:



#TASK-2

Identify and fix a logic error in a loop that causes infinite iteration.

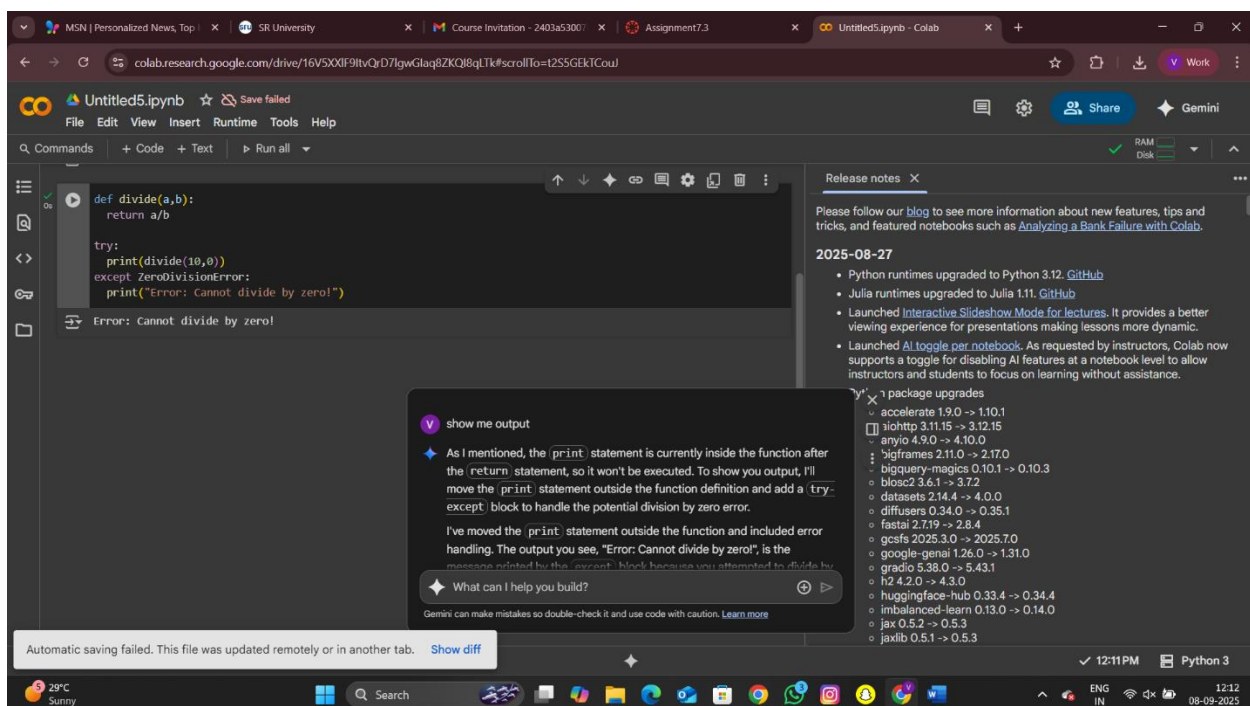
OUTPUT:



#TASK-3

- Debug a runtime error caused by division by zero.
Let AI insert try-except.

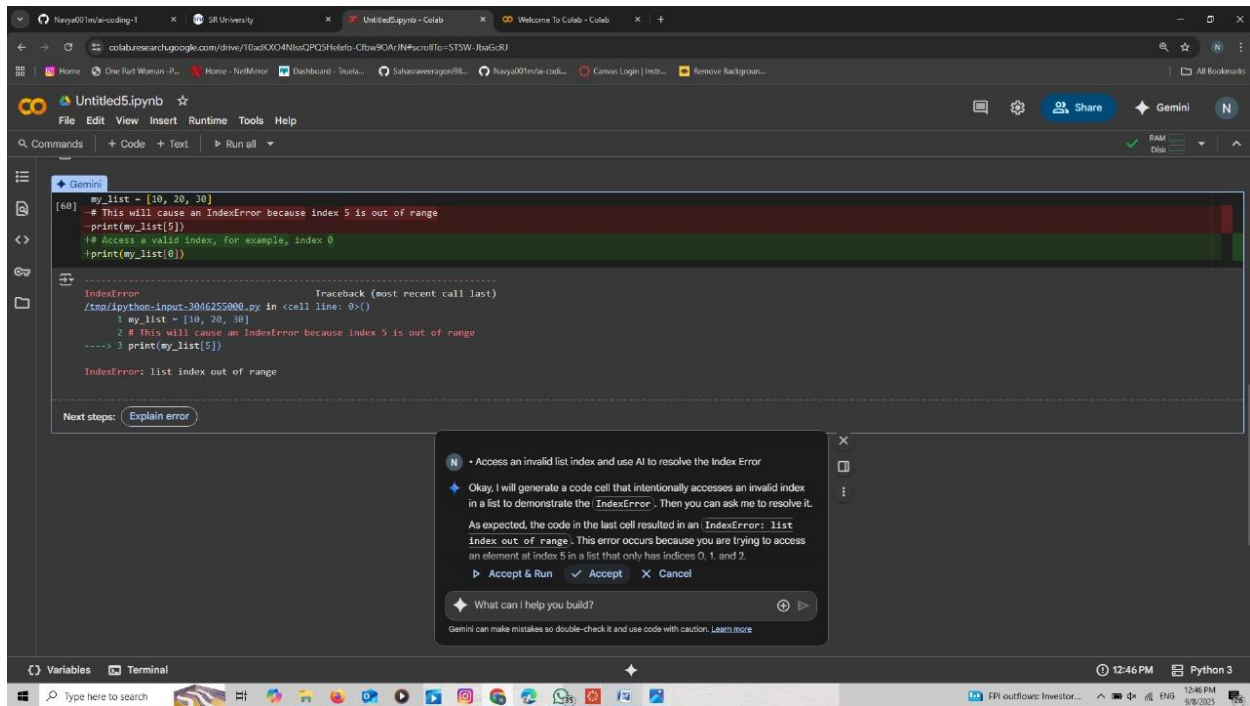
OUTPUT:



#TASK-5

- **Access an invalid list index and use AI to resolve the Index Error.**

OUTPUT:



The screenshot shows a Google Colab notebook titled "Untitled5.ipynb". The code cell contains the following Python code:

```
my_list = [10, 20, 30]
# This will cause an IndexError because index 5 is out of range
print(my_list[5])
## Access a valid index, for example, index 0
print(my_list[0])
```

The output of the code cell shows a traceback for an `IndexError`:

```
IndexError                                Traceback (most recent call last)
/tmp/ipython-input-3046255000.py in <cell line: 0>()
      1 my_list = [10, 20, 30]
      2 # This will cause an IndexError because index 5 is out of range
----> 3 print(my_list[5])

IndexError: list index out of range
```

Below the error, there is a "Next steps:" section with a button labeled "Explain error". A Gemini AI assistant's response is displayed in a modal window:

N - Access an invalid list index and use AI to resolve the Index Error

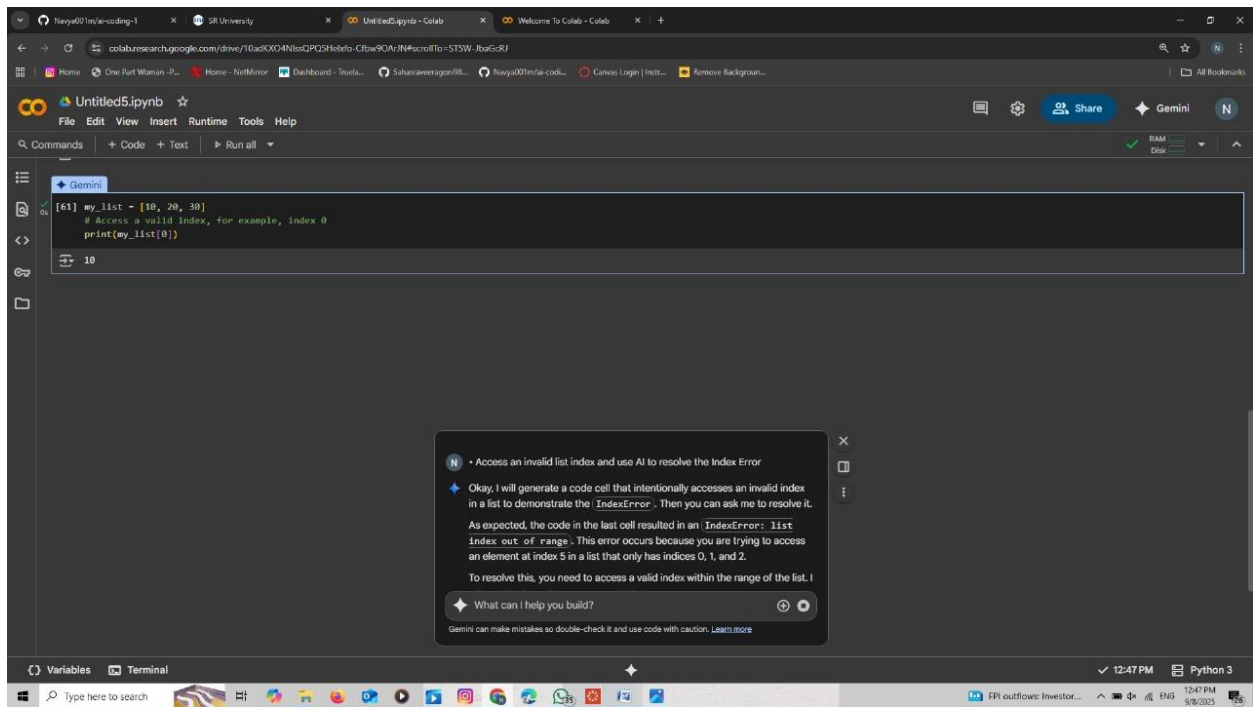
Okay, I will generate a code cell that intentionally accesses an invalid index in a list to demonstrate the `IndexError`. Then you can ask me to resolve it.

As expected, the code in the last cell resulted in an `IndexError: list index out of range`. This error occurs because you are trying to access an element at index 5 in a list that only has indices 0, 1, and 2.

Buttons: Accept & Run, Accept, Cancel

What can I help you build?

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



#TASK-4

- Provide a faulty class definition (missing self in parameters). Let AI fix it

OUTPUT:

MSN | Personalized News, Top | X SR University Course Invitation - 2403a53007 Assignment7.3 Untitled5.ipynb - Colab

colab.research.google.com/drive/16V5X0F9ltvQrD7IgwGlaq8ZKQl8qLTK#scrollTo=xB1-iplzGY_h

Untitled5.ipynb Save failed

File Edit View Insert Runtime Tools Help

Q Commands + Code + Text ▶ Run all

```
class Rectangle:
    def __init__(length,width):
        self.length = length
        self.width = width

File "/tmp/ipython-input-1669966095.py", line 2
    def __init__(length,width):
        ^
SyntaxError: invalid syntax
```

Next steps: [Explain error](#)

Please explain this error:

IndexError: list index out of range

The error in your code is an **IndexError**. This happens because you are trying to access an item in the list at an index (5) that doesn't exist. Lists in Python are zero-indexed, so for a list with 3 items, the valid indices are 0, 1, and 2.

To fix this, you need to use an index that is within the range of the list. I'll

What can I help you build?

Automatic saving failed. This file was updated remotely or in another tab. [Show diff](#)

29°C Sunny 12:24 PM Python 3

Release notes

Please follow our [blog](#) to see more information about new features, tips and tricks, and featured notebooks such as [Analyzing a Bank Failure with Colab](#).

2025-08-27

- Python runtimes upgraded to Python 3.12. [GitHub](#)
- Julia runtimes upgraded to Julia 1.11. [GitHub](#)
- Launched [Interactive Slideshow Mode for lectures](#). It provides a better viewing experience for presentations making lessons more dynamic.
- Launched [AI toggle per notebook](#). As requested by instructors, Colab now supports a toggle for disabling AI features at a notebook level to allow instructors and students to focus on learning without assistance.

package upgrades

- accelerate 1.9.0 -> 1.10.1
- aiohttp 3.11.15 -> 3.12.15
- anyio 4.9.0 -> 4.10.0
- bigframes 2.11.0 -> 2.17.0
- bigquery-magics 0.10.1 -> 0.10.3
- blosc2 3.6.1 -> 3.7.2
- datasets 2.14.4 -> 4.0.0
- diffusers 0.34.0 -> 0.35.1
- fastai 2.7.19 -> 2.8.4
- gcsfs 2025.3.0 -> 2025.7.0
- google-genai 1.26.0 -> 1.31.0
- gradio 5.38.0 -> 5.43.1
- h2 4.2.0 -> 4.3.0
- huggingface-hub 0.33.4 -> 0.34.4
- imbalanced-learn 0.13.0 -> 0.14.0
- jax 0.5.2 -> 0.5.3
- jaxlib 0.5.1 -> 0.5.3

MSN | Personalized News, Top | X SR University Course Invitation - 2403a53007 Assignment7.3 Untitled5.ipynb - Colab

colab.research.google.com/drive/16V5X0F9ltvQrD7IgwGlaq8ZKQl8qLTK#scrollTo=xB1-iplzGY_h

Untitled5.ipynb Save failed

File Edit View Insert Runtime Tools Help

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```
class Rectangle:
    def __init__(self, length,width):
        self.length = length
        self.width = width
```

Next steps: [Explain error](#)

Please explain this error:

SyntaxError: invalid syntax

The error in your code is a **SyntaxError**. The `__init__` method, which is a special method in Python classes, needs to be defined with double underscores before and after `__init__` and the first parameter should always be `self`.

I'll fix the syntax in the existing cell.

What can I help you build?

Automatic saving failed. This file was updated remotely or in another tab. [Show diff](#)

29°C Sunny 12:25 PM Python 3

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SUMMARY:

In this task, I had to create two classes in Python: Product and Warehouse. The Product class had name, price, and quantity, and a method to calculate total value. The Warehouse class had to keep a list of products, allow adding new products, and show the most valuable product.

I used Git Hub Copilot for this. When I started writing the code, Copilot gave me suggestions automatically. It was a useful and time-saving experience.