

Lesson 01 Demo 04

Writing and Running a Python Program

Objective: To demonstrate Python's basic syntax while introducing user input and the print function, establishing a foundational understanding of how Python executes code

Tools required: Google Colab

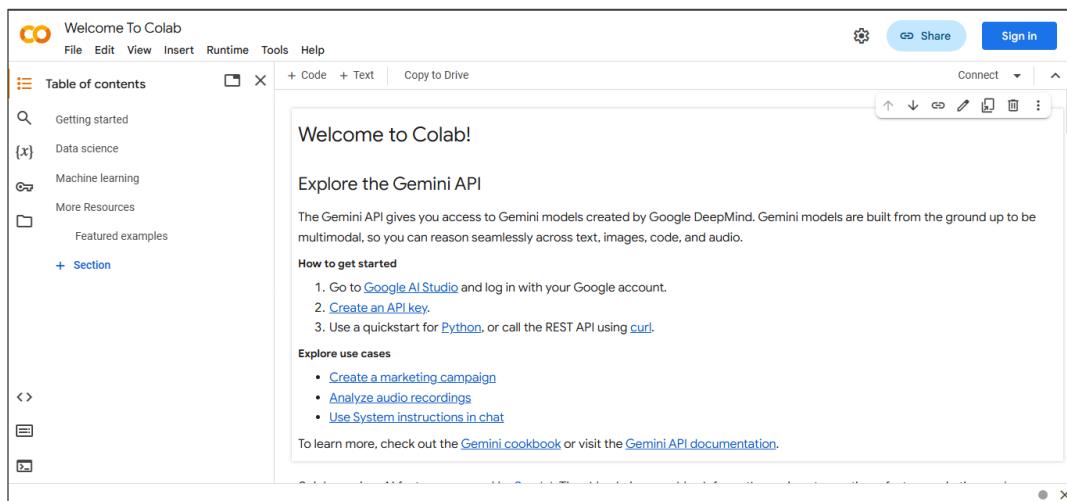
Prerequisites: None

Steps to be followed:

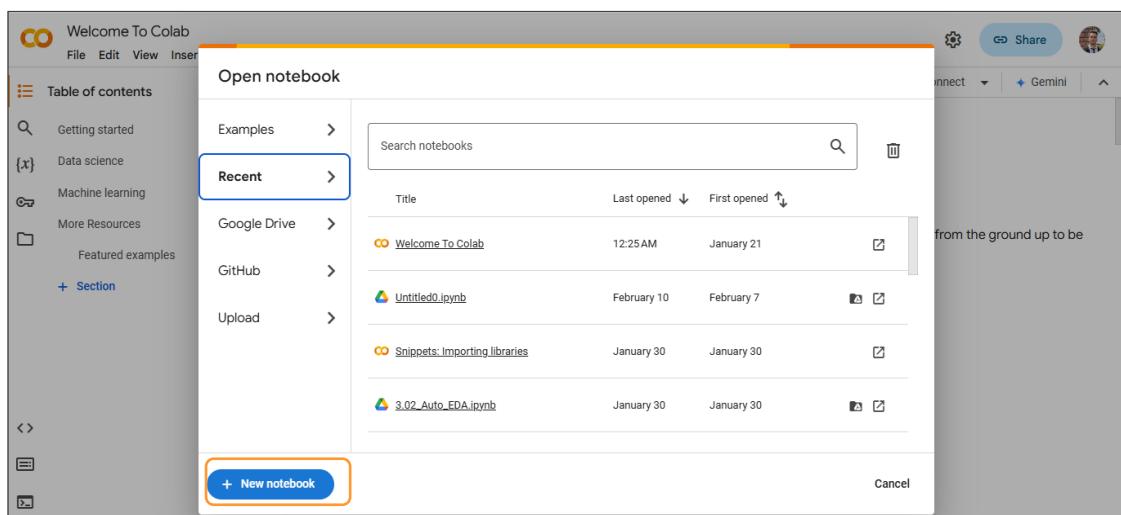
1. Open Google Colab and create a new notebook
2. Write and execute Python code

Step 1: Open Google Colab and create a new notebook

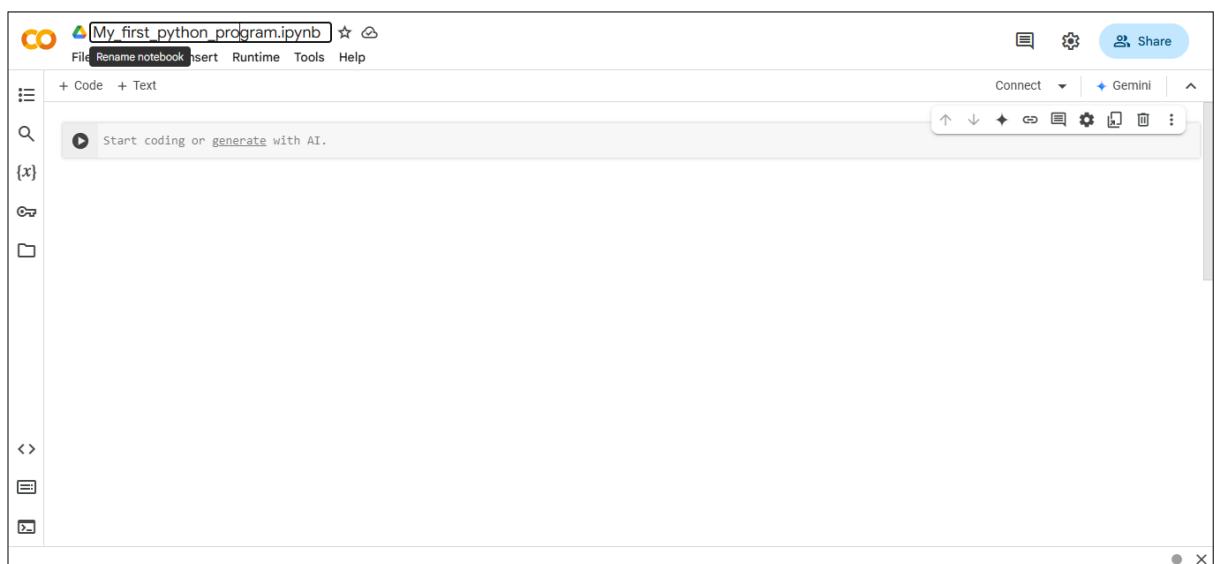
1.1 Open Google Colab: <https://colab.research.google.com/>



1.2 Click on New notebook



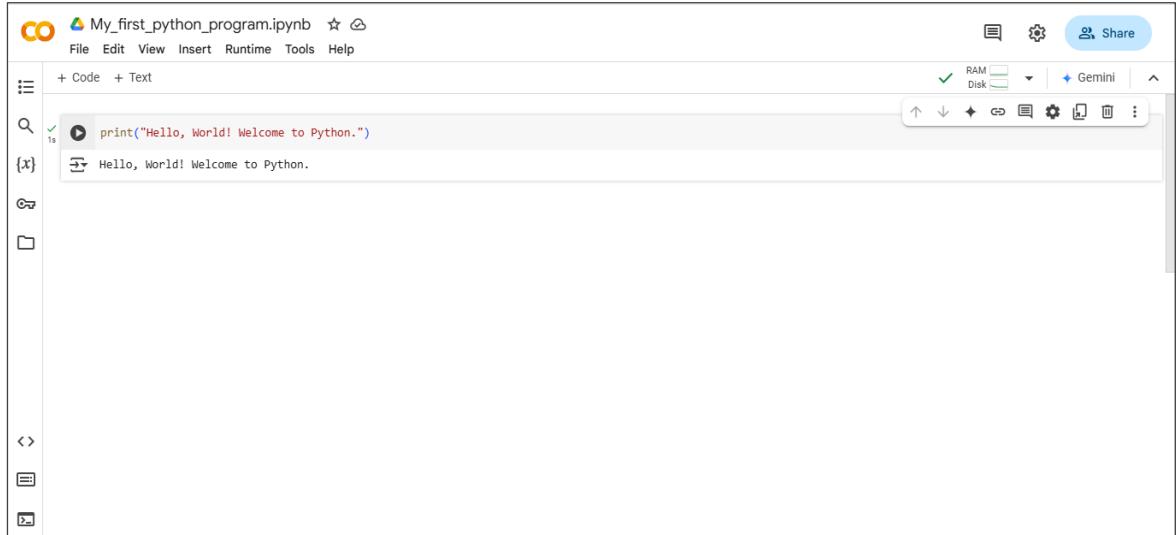
1.3 In the top left corner, rename the notebook as My_first_python_program



Step 2: Write and execute Python code

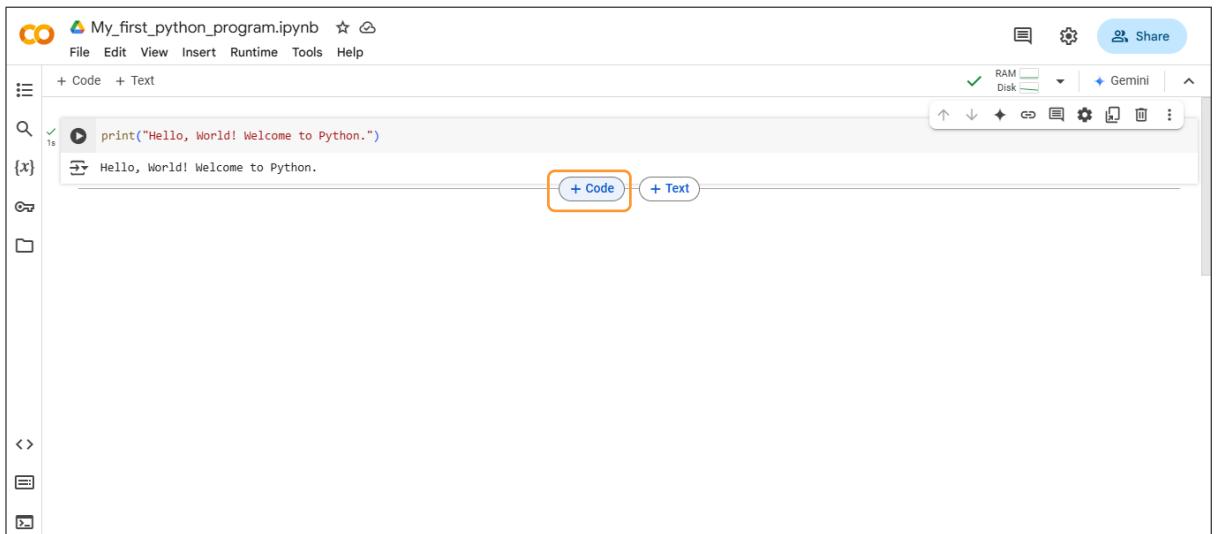
2.1 Write the following code to print a simple output:

```
print("Hello, World! Welcome to Python.")
```



The screenshot shows a Jupyter Notebook interface with a single code cell containing the code `print("Hello, World! Welcome to Python.")`. The output of the cell, "Hello, World! Welcome to Python.", is displayed below the code. The notebook title is "My_first_python_program.ipynb". The toolbar at the top includes options like File, Edit, View, Insert, Runtime, Tools, Help, Share, RAM, Disk, and Gemini.

2.2 Hover the cursor over the old cell and click on **+ Code** to add a new cell in the notebook



The screenshot shows the same Jupyter Notebook interface as above, but now with two code cells. A new cell has been inserted below the first one, indicated by a button labeled "+ Code" which is highlighted with an orange box. The first cell contains the code `print("Hello, World! Welcome to Python.")` and the output "Hello, World! Welcome to Python.". The second cell is currently empty. The notebook title is "My_first_python_program.ipynb". The toolbar at the top includes options like File, Edit, View, Insert, Runtime, Tools, Help, Share, RAM, Disk, and Gemini.

2.3 In the new cell, write the following code to see how comments work:

```
# This is a single-line comment
print("Single-line comments are useful for explanations.")

"""

This is a multi-line comment.
It can be used for documentation.
"""

print("Multi-line comments allow for longer explanations.")
```

```
[1] print("Hello, World! Welcome to Python.")
[2] Hello, World! Welcome to Python.

[3] # This is a single-line comment
[4] print("Single-line comments are useful for explanations.")

[5] ...
[6] This is a multi-line comment.
[7] It can be used for documentation.
[8] ...
[9] print("Multi-line comments allow for longer explanations.")

[10] Single-line comments are useful for explanations.
[11] Multi-line comments allow for longer explanations.
```

2.4 Add another new cell, write the following code for user input, and run the cell:

```
name = input("Enter your name: ") # Taking input from the user
print("Hello, " + name + "! Welcome to Python programming.")
```

```
[1] print("Hello, World! Welcome to Python.")
[2] Hello, World! Welcome to Python.

[3] # This is a single-line comment
[4] print("Single-line comments are useful for explanations.")

[5] ...
[6] This is a multi-line comment.
[7] It can be used for documentation.
[8] ...
[9] print("Multi-line comments allow for longer explanations.")

[10] Single-line comments are useful for explanations.
[11] Multi-line comments allow for longer explanations.

[12] name = input("Enter your name: ") # Taking input from the user
[13] print("Hello, " + name + "! Welcome to Python programming.")

[14] ...
[15] Enter your name: John
```

Type your name inside the box when prompted.

2.5 Press enter, and you will see the following output based on your input:

```
[1]: print("Hello, World! Welcome to Python.")
[1]: Hello, World! Welcome to Python.

[2]: # This is a single-line comment
      print("Single-line comments are useful for explanations.")

      ...
      This is a multi-line comment.
      It can be used for documentation.
      ...
      print("Multi-line comments allow for longer explanations.")

      Single-line comments are useful for explanations.
      Multi-line comments allow for longer explanations.

[3]: name = input("Enter your name: ") # Taking input from the user
      print("Hello, " + name + "! Welcome to Python programming.")

      Enter your name: John
      Hello, John! Welcome to Python programming.
```

By following these steps, you have successfully written and executed Python code in Google Colab to print output, add comments, and take user input.