SOFTWARE ENGINEERING LAB TASK 2

04-12-2024

HU22CSEN0100287

SAI GANESH ESWARAPRASAD

Write any program is google colab using hard coding variables, keyboard input, read from a file single input and read from a file multiple set of inputs and save all the versions, debug and fix any errors, push all the versions into your git hub account.

Steps:

1. Hardcoding Variables: Demonstrate by using predefined values.

2. Keyboard Input: Use Python's input() to accept data from the user.

3. Read From File (Single Input): Read a single input from a file.

4. Read From File (Multiple Inputs): Read multiple inputs from a file and process them.

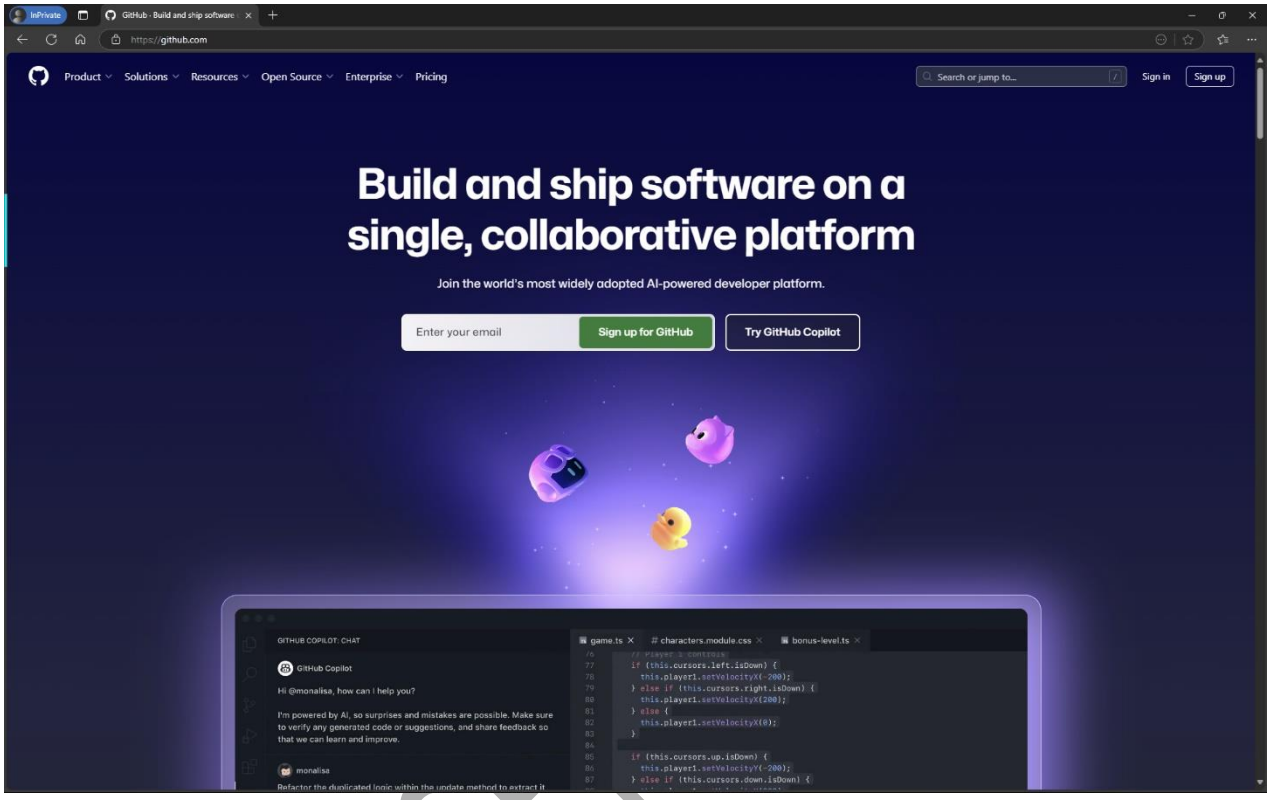
5. Save All Versions: Save each version of the program in different cells/files.

6. Debug and Fix Errors: Handle errors like missing files, incorrect input, etc.

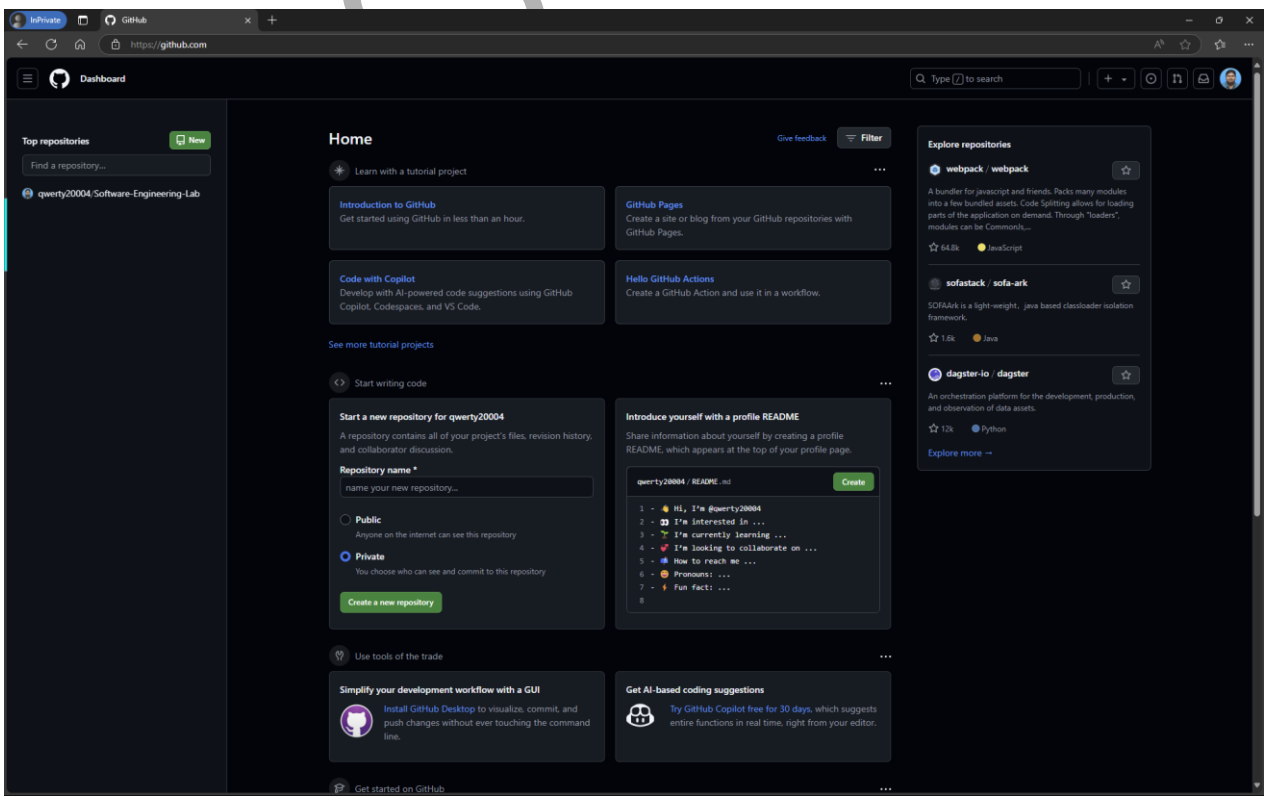
7. Push Versions to GitHub: You can use git commands within Colab (assuming the repository is already initialized).

1) Set Up GitHub Repository

1) Go to GitHub

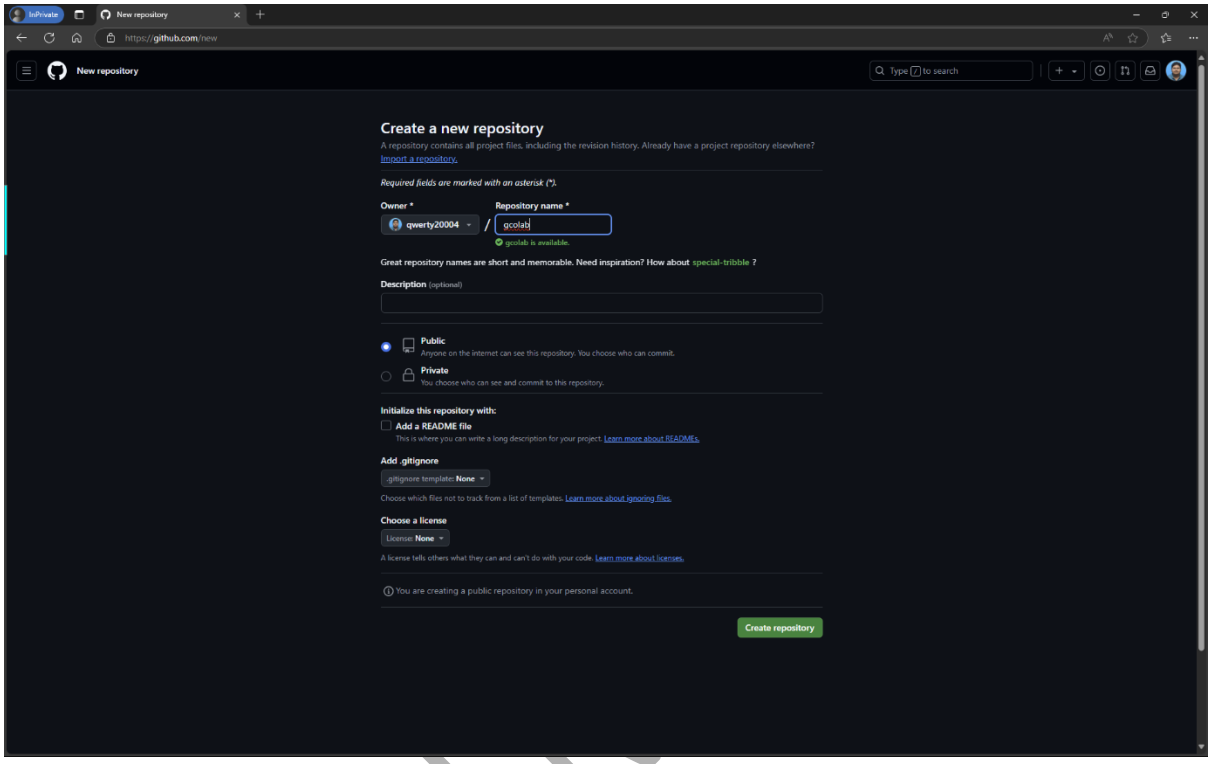


2) Log into your GitHub account.

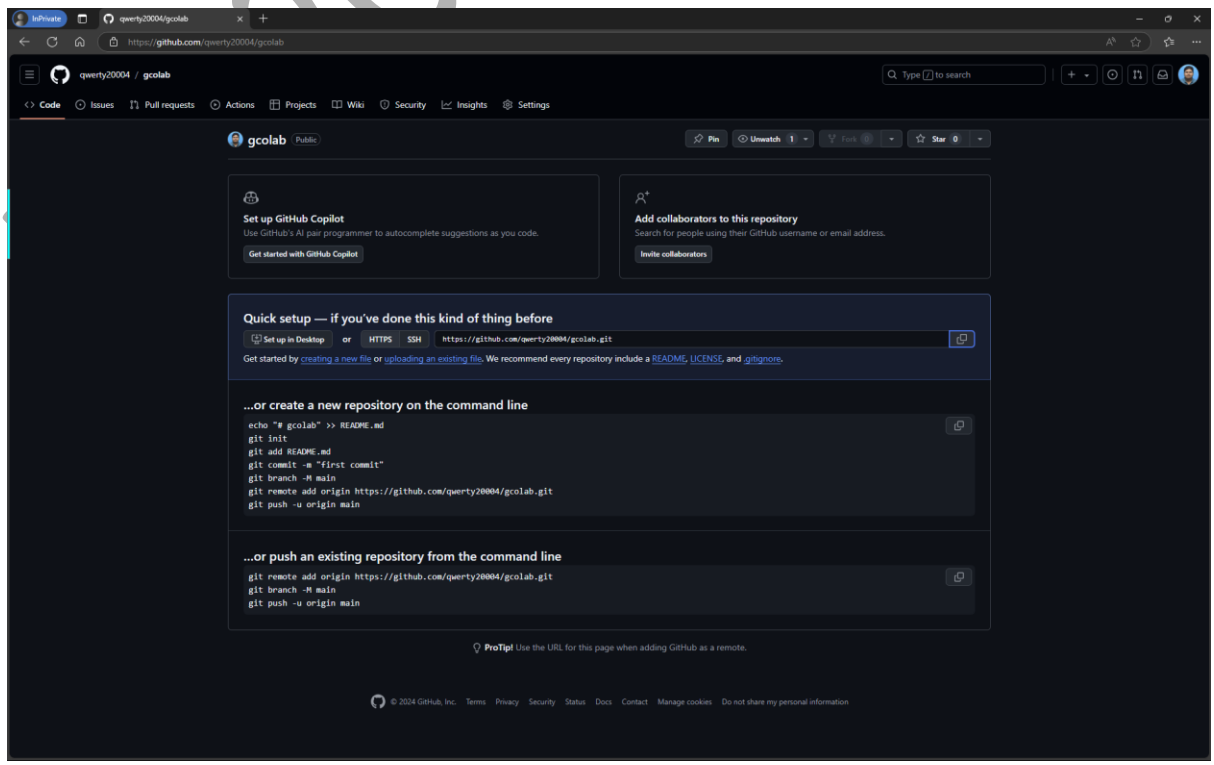


3) Create a New Repository by clicking on “New” Button on left panel and fill necessary details

Do **not** initialize the repository with a README.

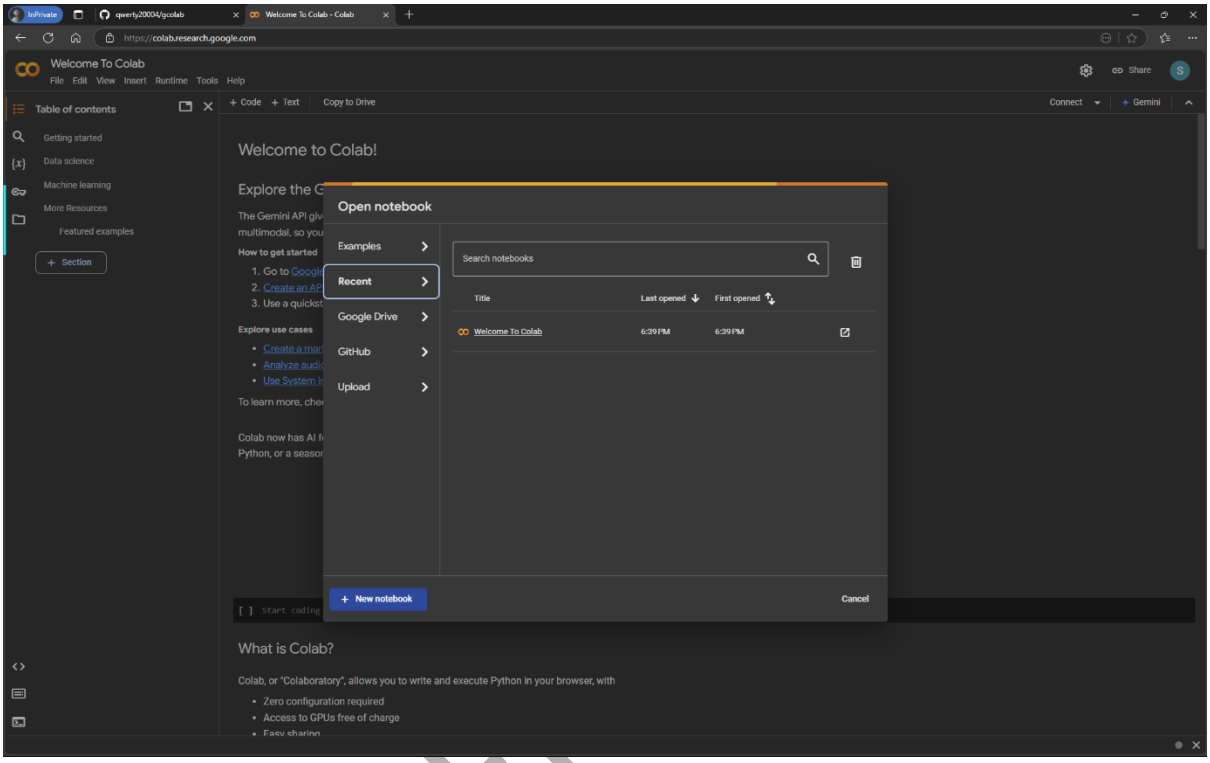


4) Copy Repository URL

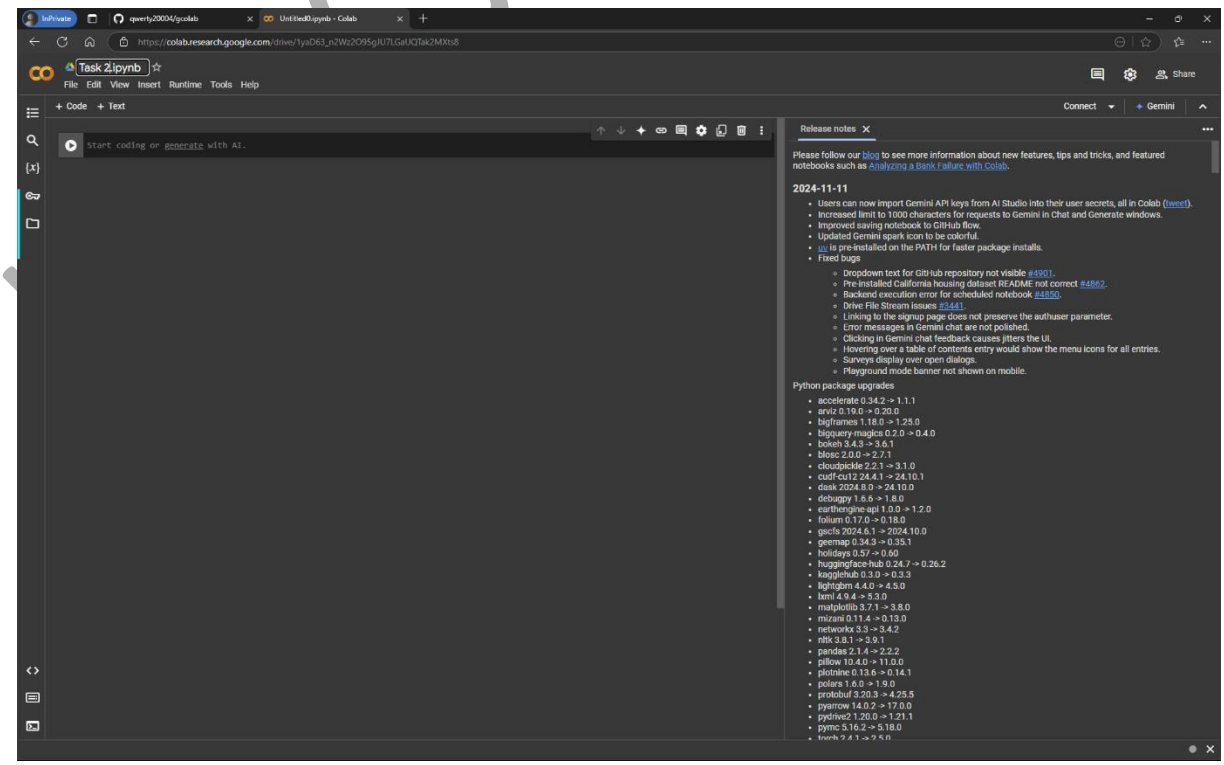


2) Connect Google Colab to Google Drive

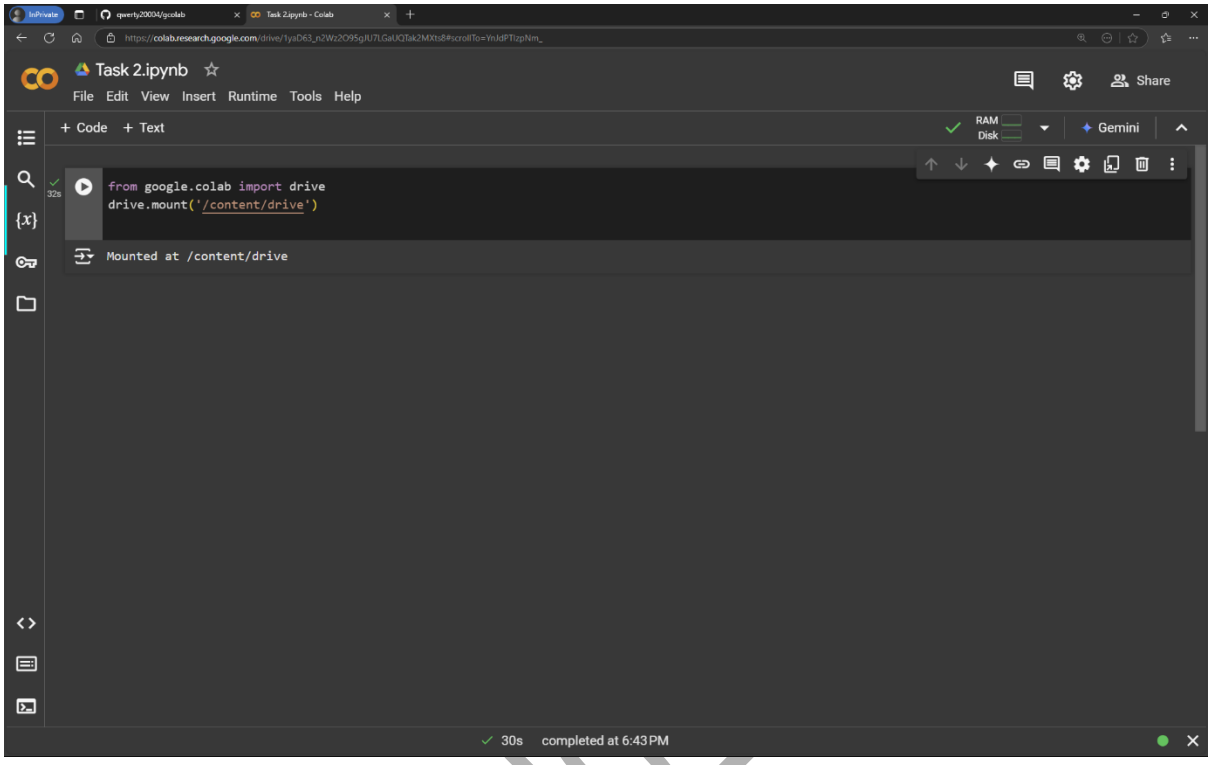
1) Login to Google Colab using Google Account



2) Create New Notebook and rename Notebook name

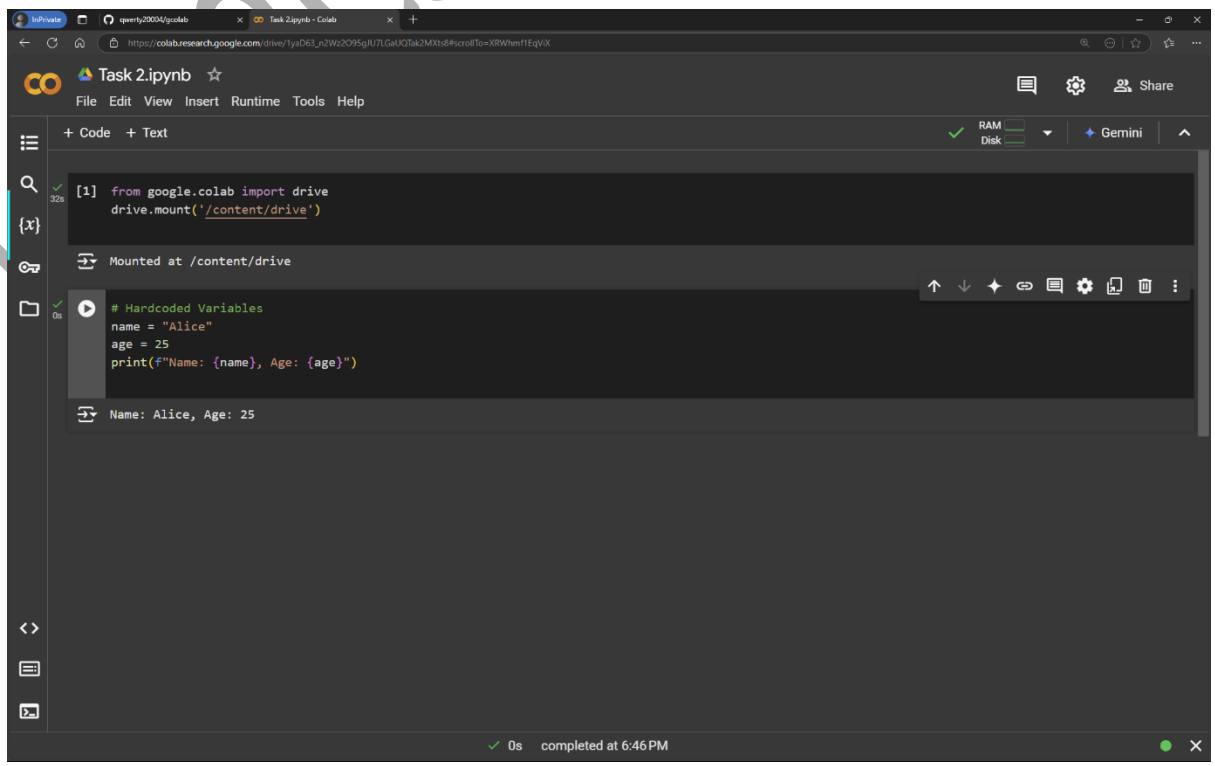


3) Run the following code to mount your Google Drive



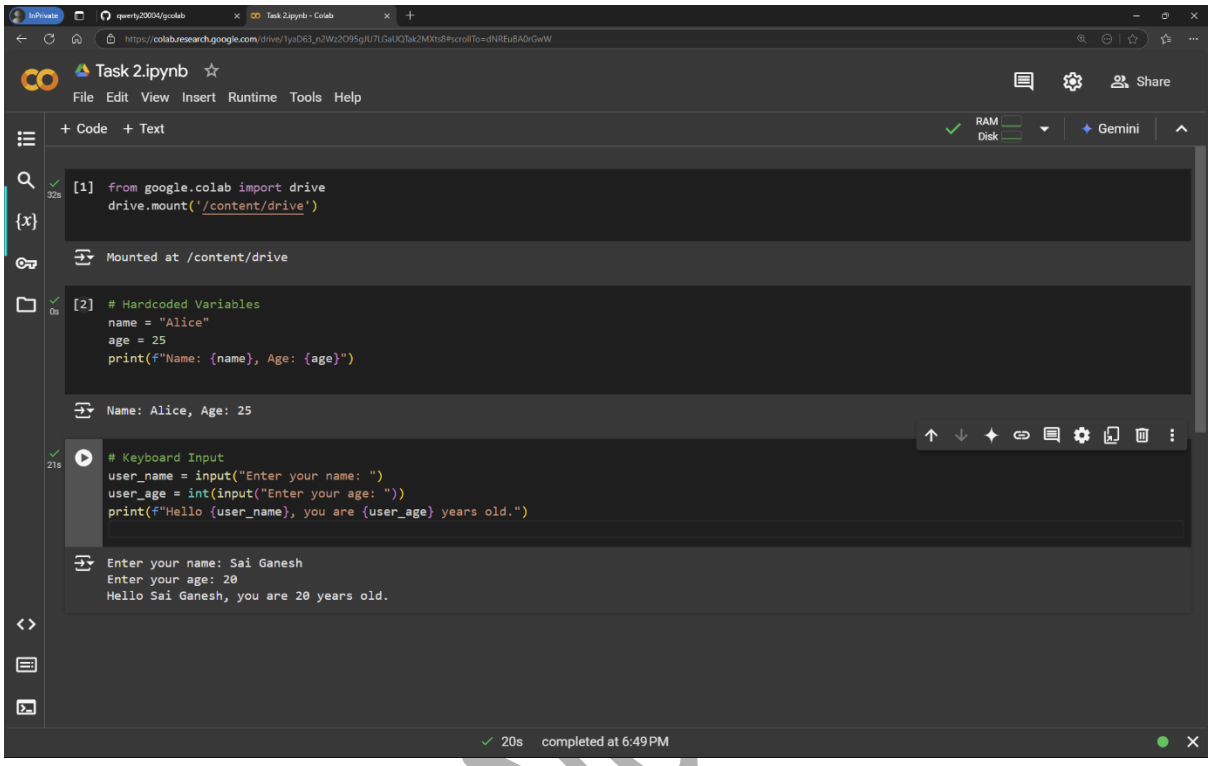
3) Create the Program

1) Step 1: Hardcoding Variables (Click '+ Code')



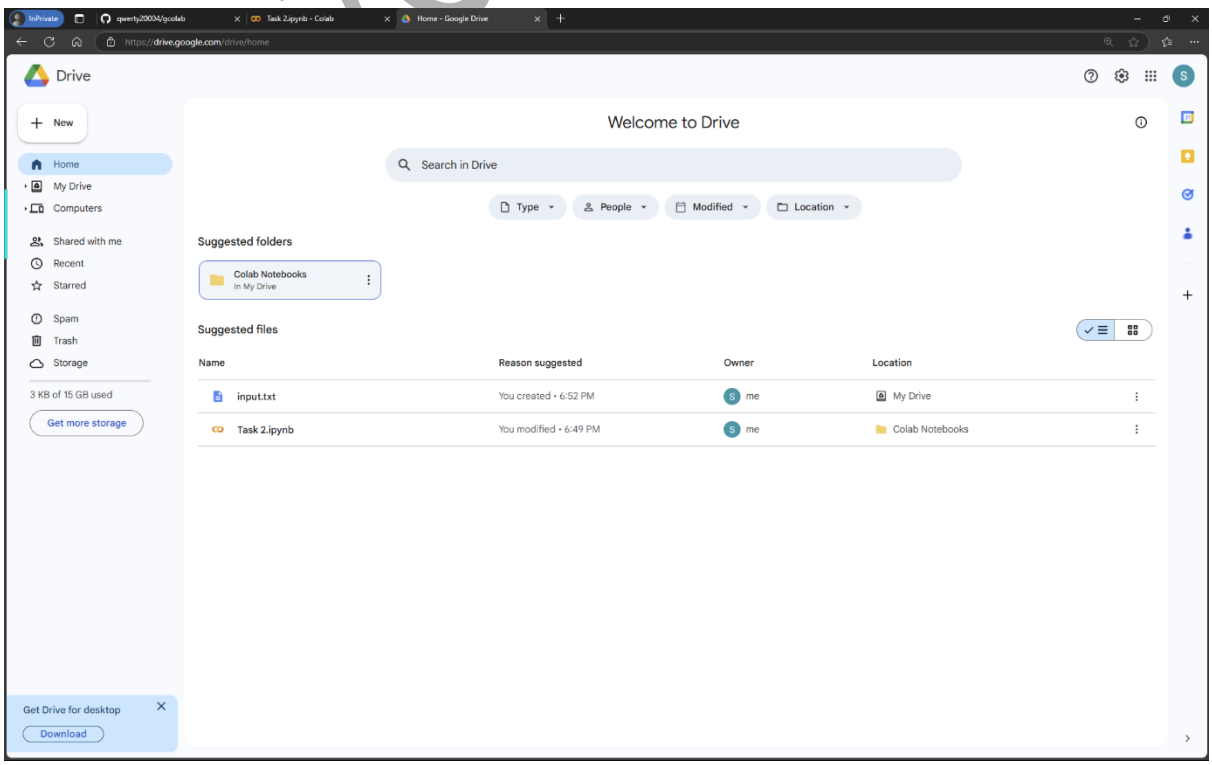
2) Step 2: Keyboard Input

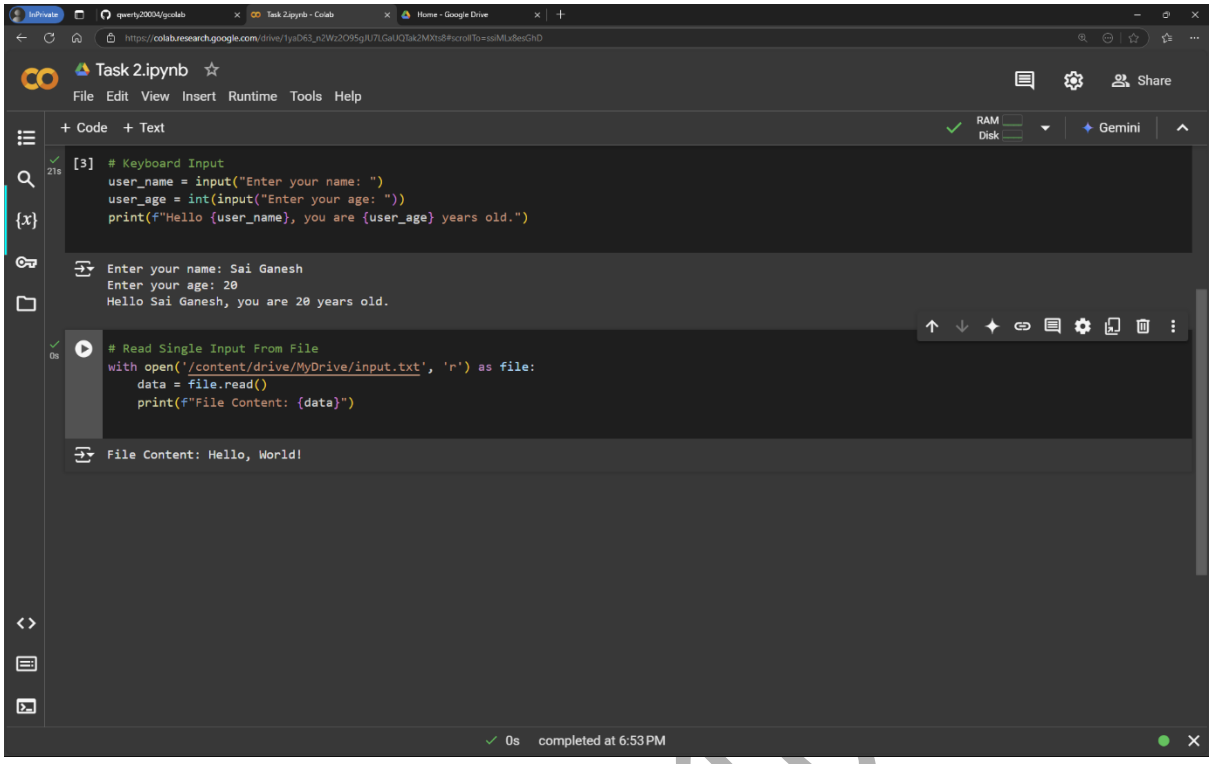
Accept data using input() function



3) Step 3: Read From File (Single Input)

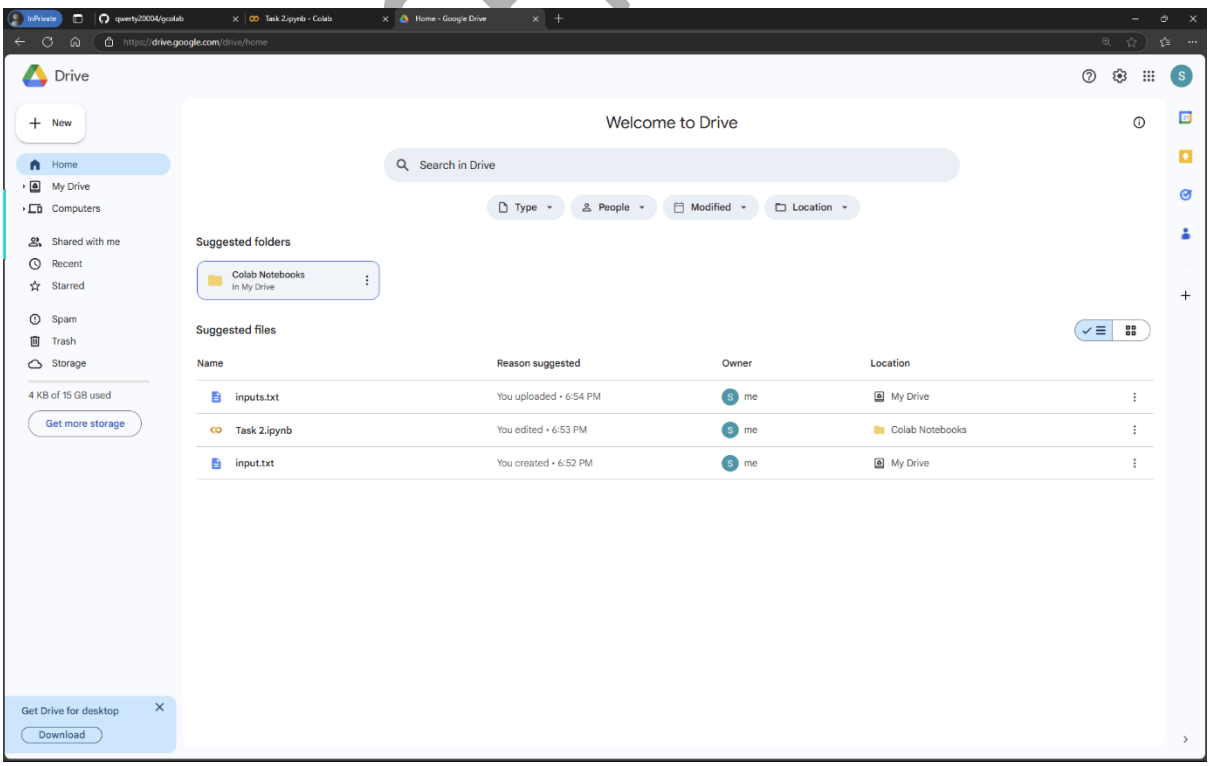
Save a file (input.txt) in your Drive or upload it. Example content: Hello, World!.

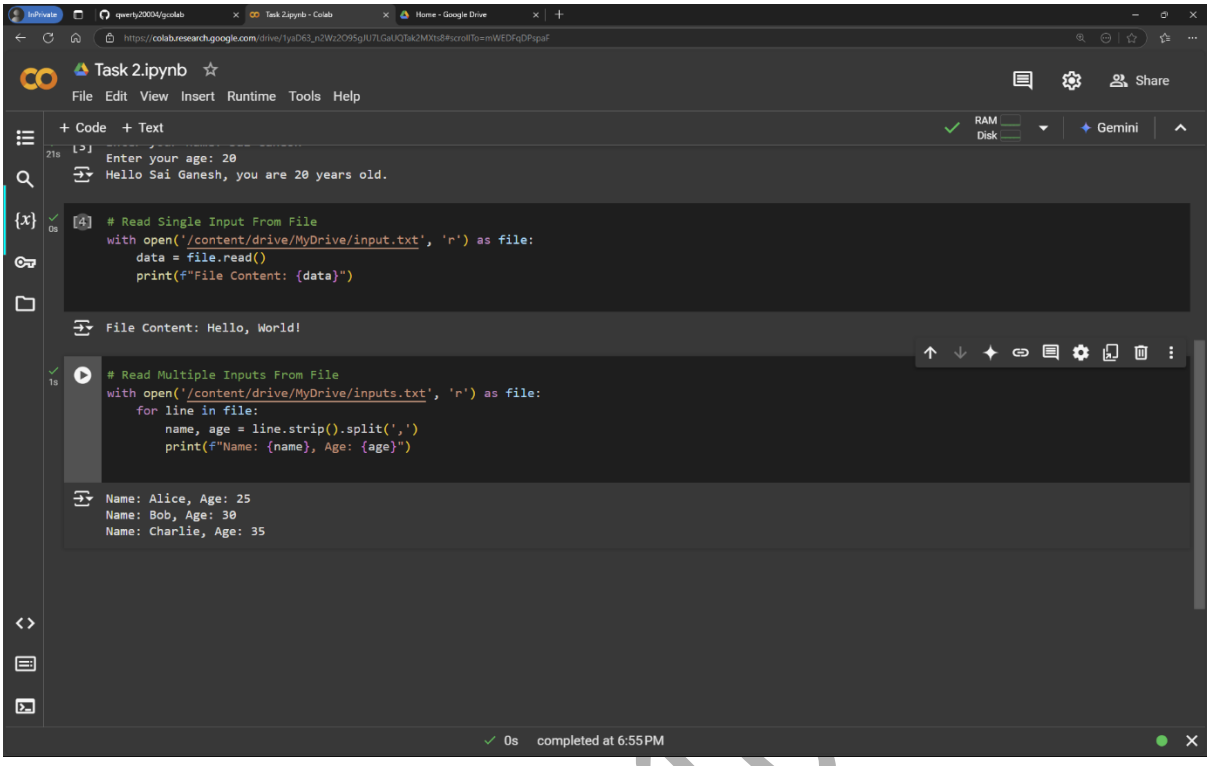




4) Read From File (Multiple Inputs)

Save a file (inputs.txt) in your Drive with multiple lines of data.



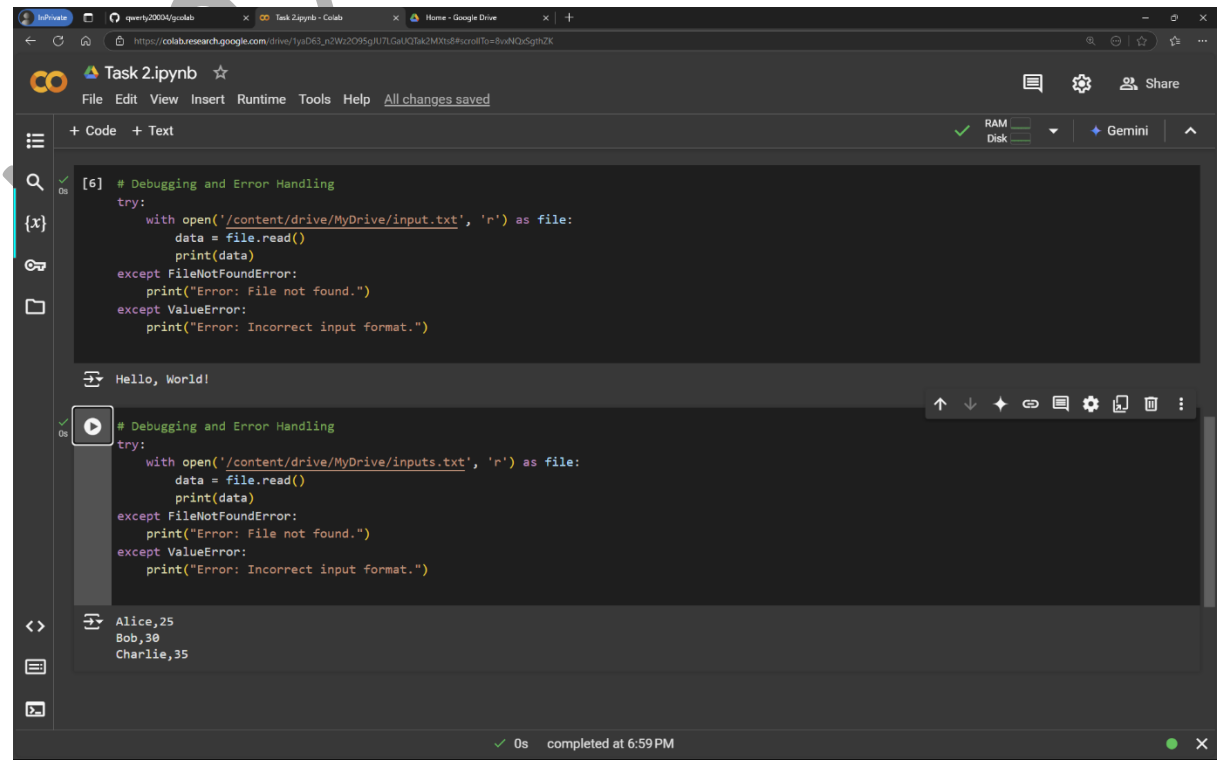


5) Step 5: Save All Versions

   Save different versions of the code by creating new cells for each variation in the notebook.

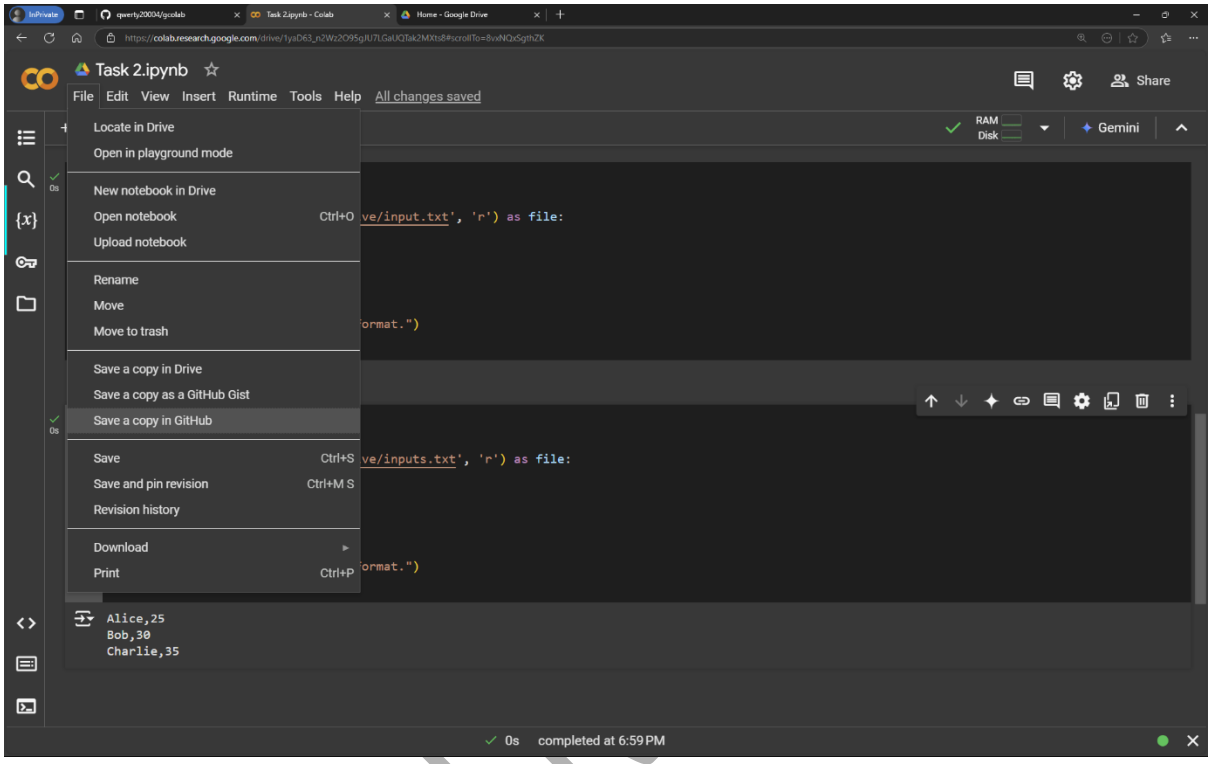
6) Step 6: Debug and Fix Errors

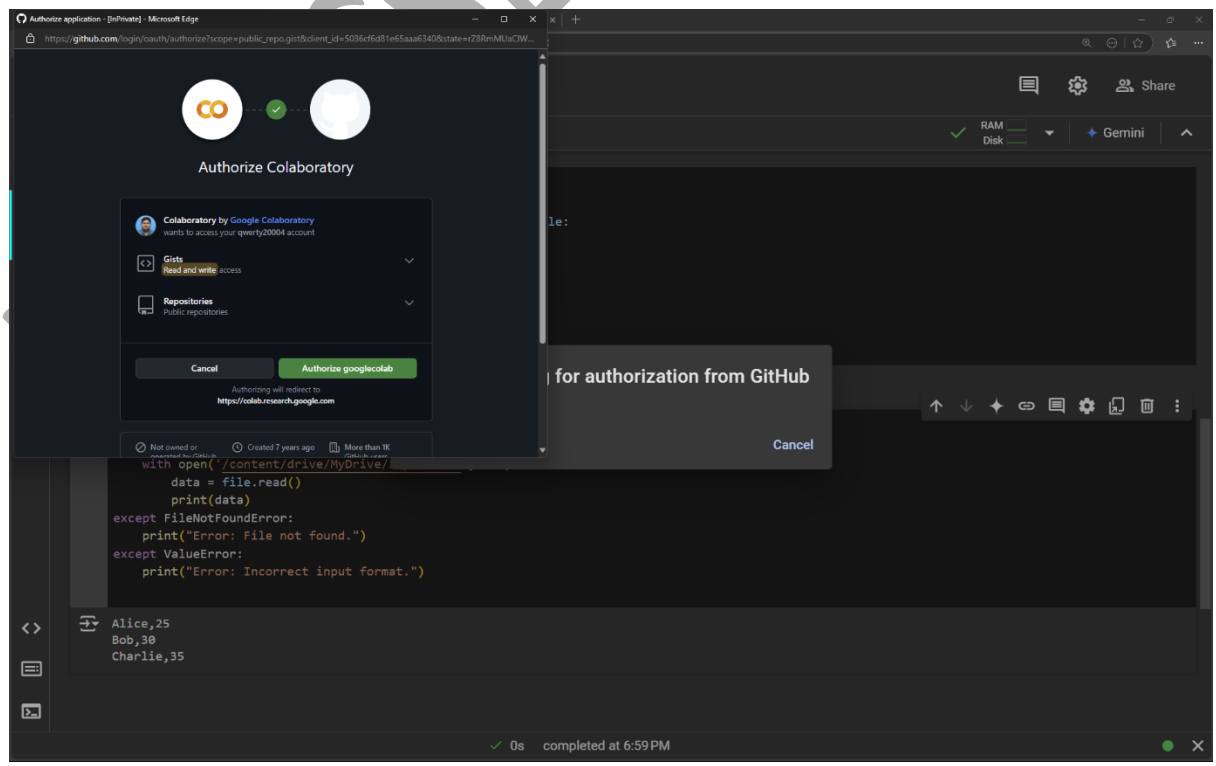
   Add error handling for missing files or incorrect inputs

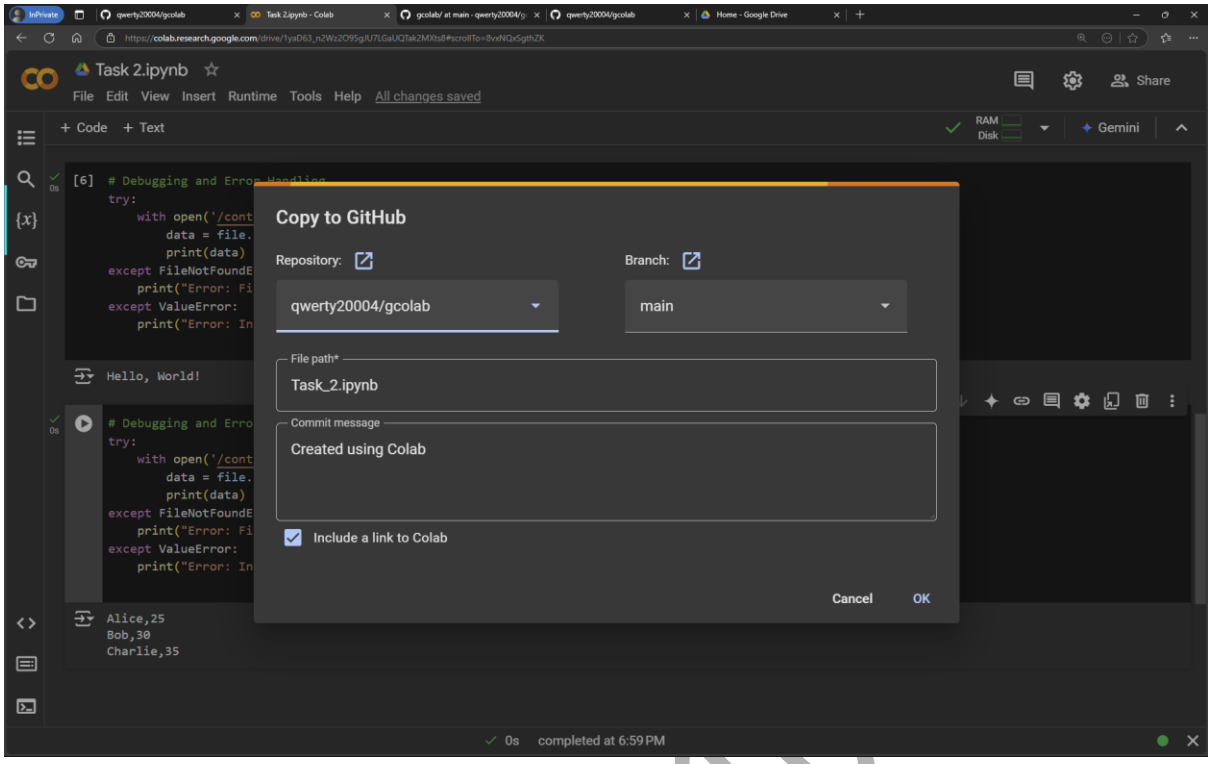


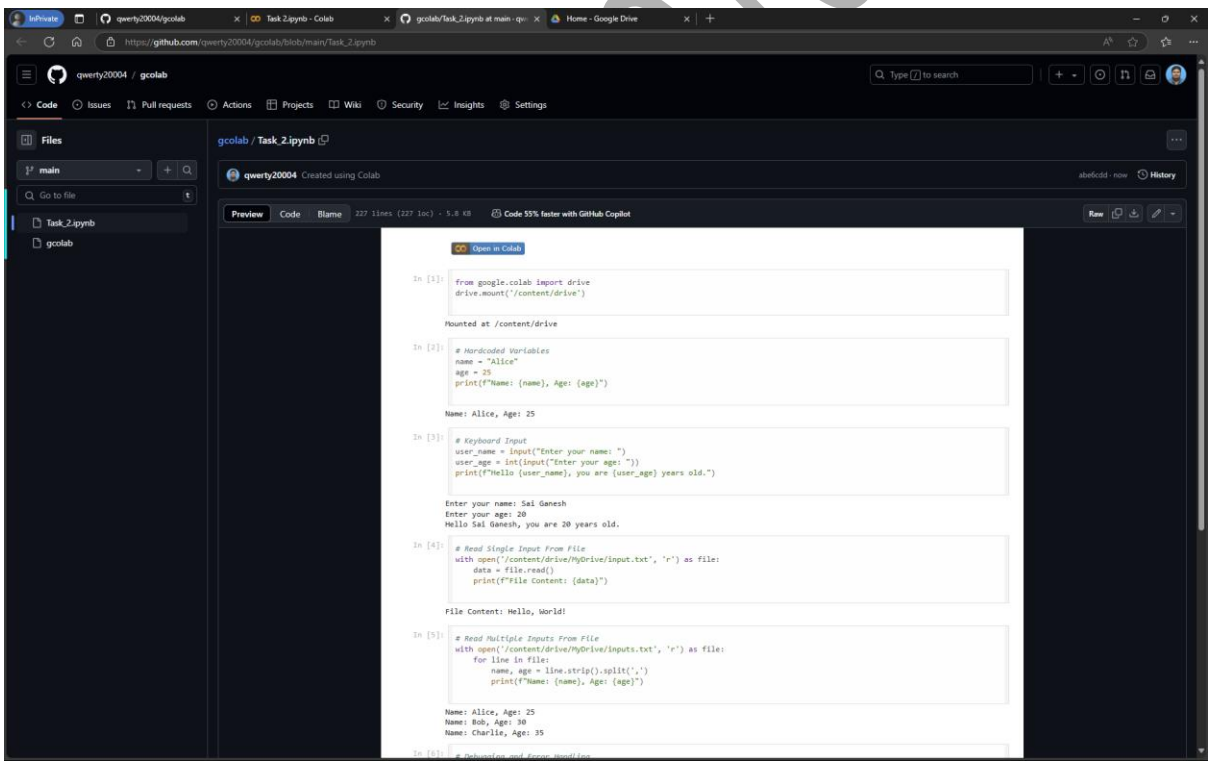
4) Push Versions to GitHub:

Uses git commands within Colab to push changes.






Task 2.ipynb
File Edit View Insert Runtime Tools Help All changes saved
+ Code + Text
Share
Gemini
Copy to GitHub
Repository:
Branch:
qwerty20004/gcolab
main
File path*
Task_2.ipynb
Commit message
Created using Colab
Include a link to Colab
Cancel
OK
Hello, World!
Alice,25
Bob,30
Charlie,35
0s completed at 6:59 PM


qwerty20004 / gcolab
Code Issues Pull requests Actions Projects Wiki Security Insights Settings
Files
main
Task_2.ipynb
gcolab
gcolab / Task_2.ipynb
qwerty20004 Created using Colab
Preview Code Blame
Open in Colab
from google.colab import drive
drive.mount('/content/drive')
Mounted at /content/drive
# Hardcoded Variables
name = "Alice"
age = 25
print(f"Name: {name}, Age: {age}")
Name: Alice, Age: 25
# Keyboard Input
user_name = input("Enter your name: ")
user_age = int(input("Enter your age: "))
print(f"Hello {user_name}, you are {user_age} years old.")
Enter your name: Sai Ganesh
Enter your age: 20
Hello Sai Ganesh, you are 20 years old.
Read Single Input From File
with open('/content/drive/MyDrive/input.txt', 'r') as file:
data = file.read()
print(f"File Content: {data}")
File Content: Hello, World!
Read Multiple Inputs From File
with open('/content/drive/MyDrive/inputs.txt', 'r') as file:
for line in file:
name, age = line.strip().split(',')
print(f"Name: {name}, Age: {age}")
Name: Alice, Age: 25
Name: Bob, Age: 30
Name: Charlie, Age: 35