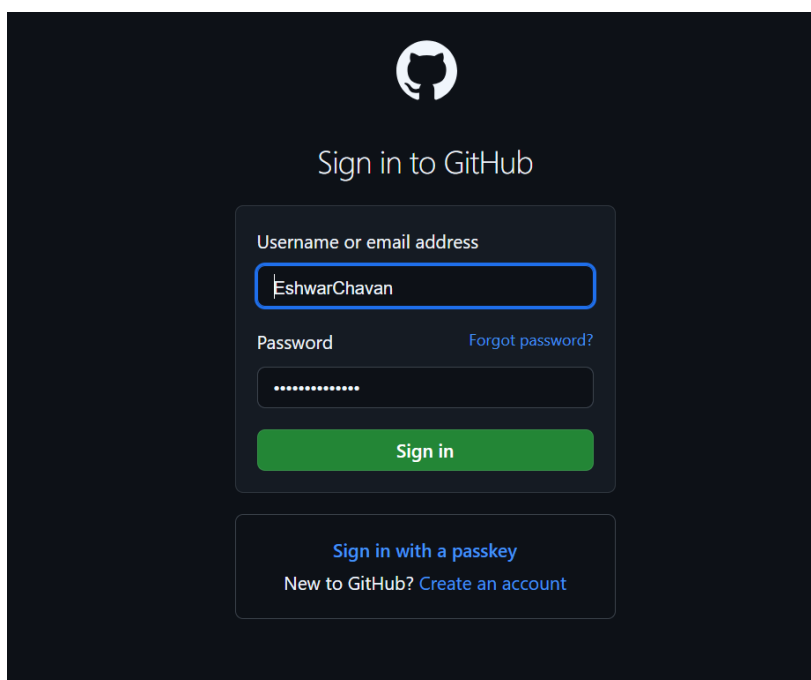Software Engineering Lab Task 2
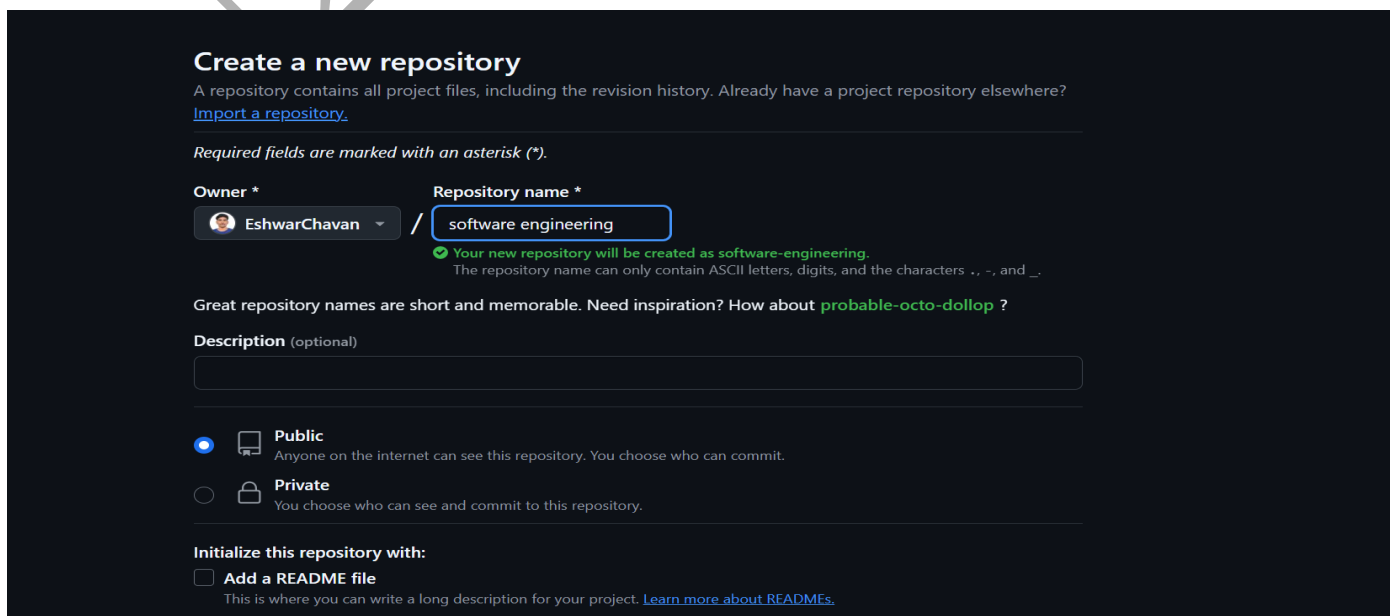
4-12-2024

Eshwar Deshmukh Chavan

HU22CSEN0100999

write any program is goggle 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.
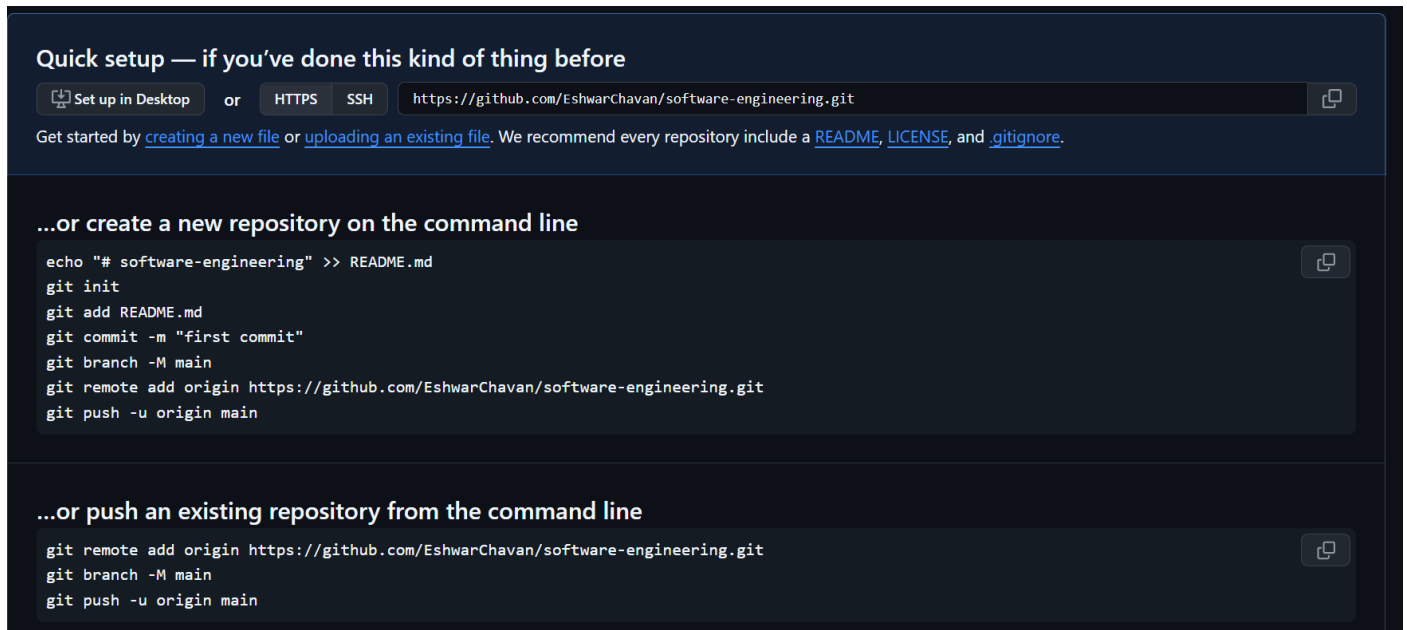
Step 1: Go to your GitHub account.

Step 2: Create a new repository. Give the repository a name, Make it public or private as per your requirement and Do not initialize with a README file.

Step 3: Copy the repository URL

Step 4: Connect Google Colab to Google Drive and create a new notebook and mount your Google Drive.
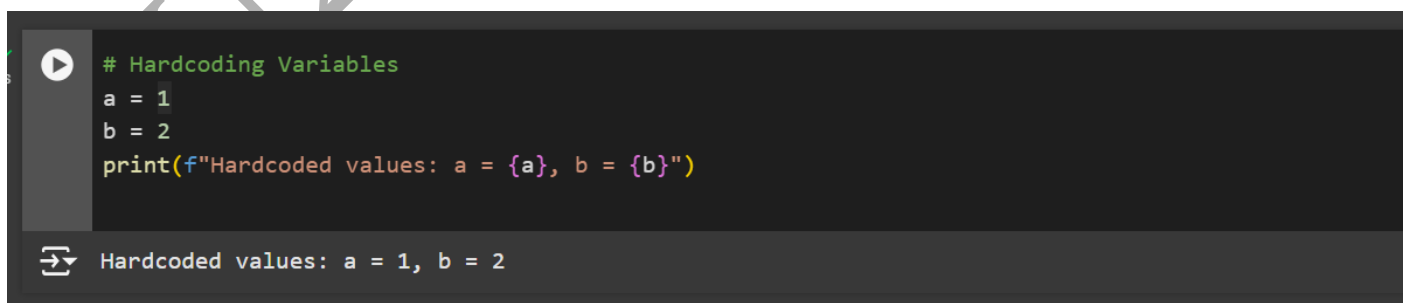
```
from google. colab import drive
drive .mount('/content/drive')
```
```
Drive already mounted at /content/drive; to attempt to forcibly remount, call drive.mount("/content/drive", force_remount=True).
```

Steps:

1. **Hardcoding Variables**:

- Demonstrates the use of predefined values.
- Shows basic variable assignment and printing.

```
# Hardcoding Variables
a = 1
b = 2
print(f"Hardcoded values: a = {a}, b = {b}")
```
```
Hardcoded values: a = 1, b = 2
```

2. **Keyboard Input:**

- Utilizes Python's input() function to accept user data.
- Converts input to the appropriate data type (e.g., integer).

```
# Keyboard Input
name = input("Enter your name: ")
age = int(input("Enter your age: "))
print(f"Name: {name}, Age: {age}")
```

```
Enter your name: Eshwar Deshmukh Chavan
Enter your age: 19
Name: Eshwar Deshmukh Chavan, Age: 19
```

3. **Read From File (Single Input):**

- Reads a single input from a file.

- Handles file not found errors using try-except.

```
# Read From File (Single Input)
file_path = '/content/drive/MyDrive/SE_LAB/single_input.txt'

try:
    with open(file_path, 'r') as file:
        single_input = file.read()
        print(f"Single input from file: {single_input}")
except FileNotFoundError:
    print(f"Error: The file {file_path} does not exist.")
```

```
Single input from file:  Name: Eshwar Deshmukh Chavan
```

4. **Read From File (Multiple Inputs):**

- Reads multiple inputs from a file.

- Processes each line of the file.

- Handles file not found errors using try-except.

```
# Read From File (Multiple Inputs)
file_path = '/content/drive/MyDrive/SE_LAB/multiple_inputs.txt'

try:
    with open(file_path, 'r') as file:
        multiple_inputs = file.readlines()
        for line in multiple_inputs:
            print(f"Input from file: {line.strip()}")
except FileNotFoundError:
    print(f"Error: The file {file_path} does not exist.")
```

```
Input from file: Software Engineering Lab Task 2
Input from file: Name: Eshwar Deshmukh Chavan
Input from file: Roll no: HU22CSEN0100999
Input from file: course: Software engineering
Input from file: lab task 4-12-2024
```
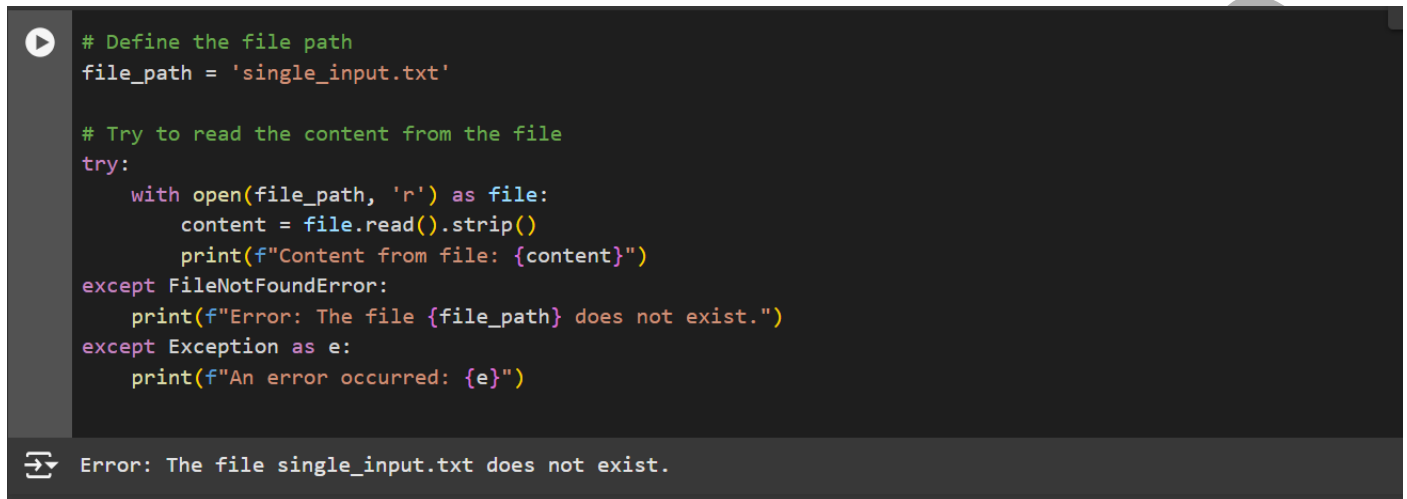
5.**Save All Versions:**

- Each version of the program is saved in different cells.
- Ensures clarity and separation of different tasks.

6. **Debug and Fix Errors:**

- Includes error handling for missing files.

- Ensures robustness by catching and reporting errors.

```python
# Define the file path
file_path = 'single_input.txt'

# Try to read the content from the file
try:
    with open(file_path, 'r') as file:
        content = file.read().strip()
        print(f"Content from file: {content}")
except FileNotFoundError:
    print(f"Error: The file {file_path} does not exist.")
except Exception as e:
    print(f"An error occurred: {e}")
```
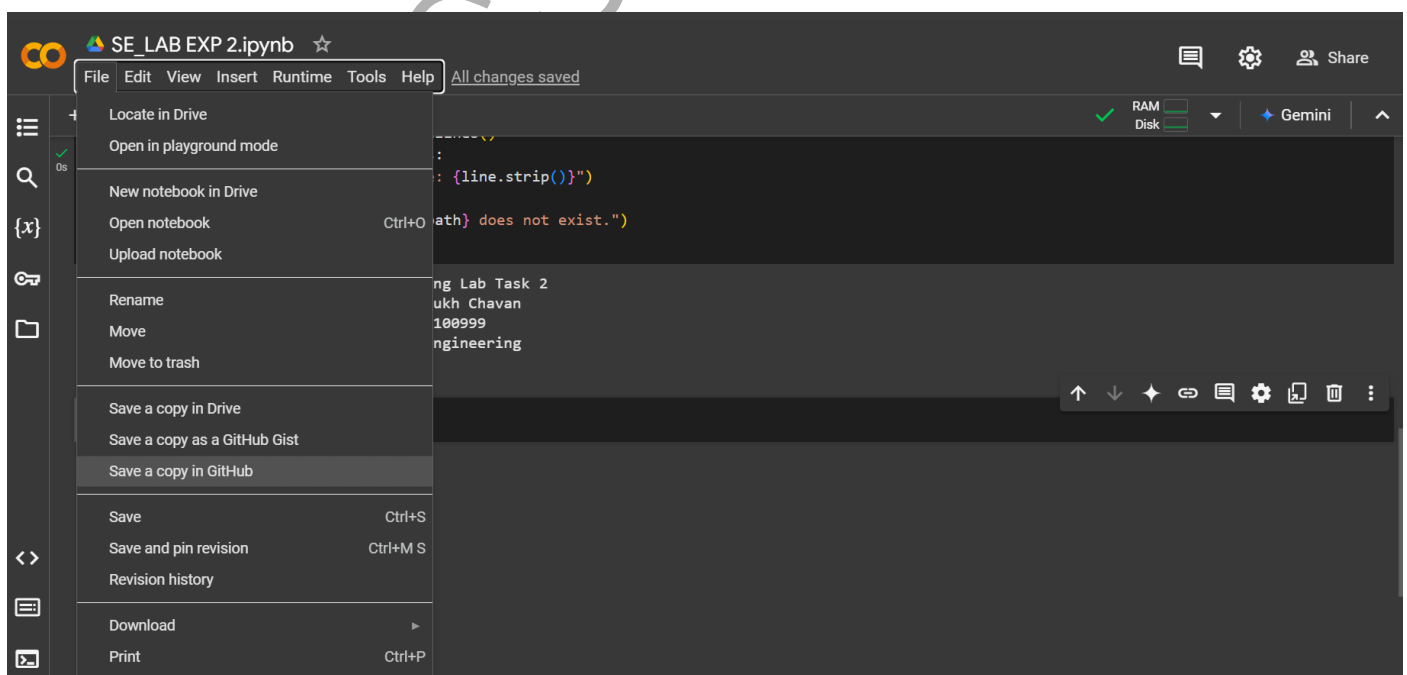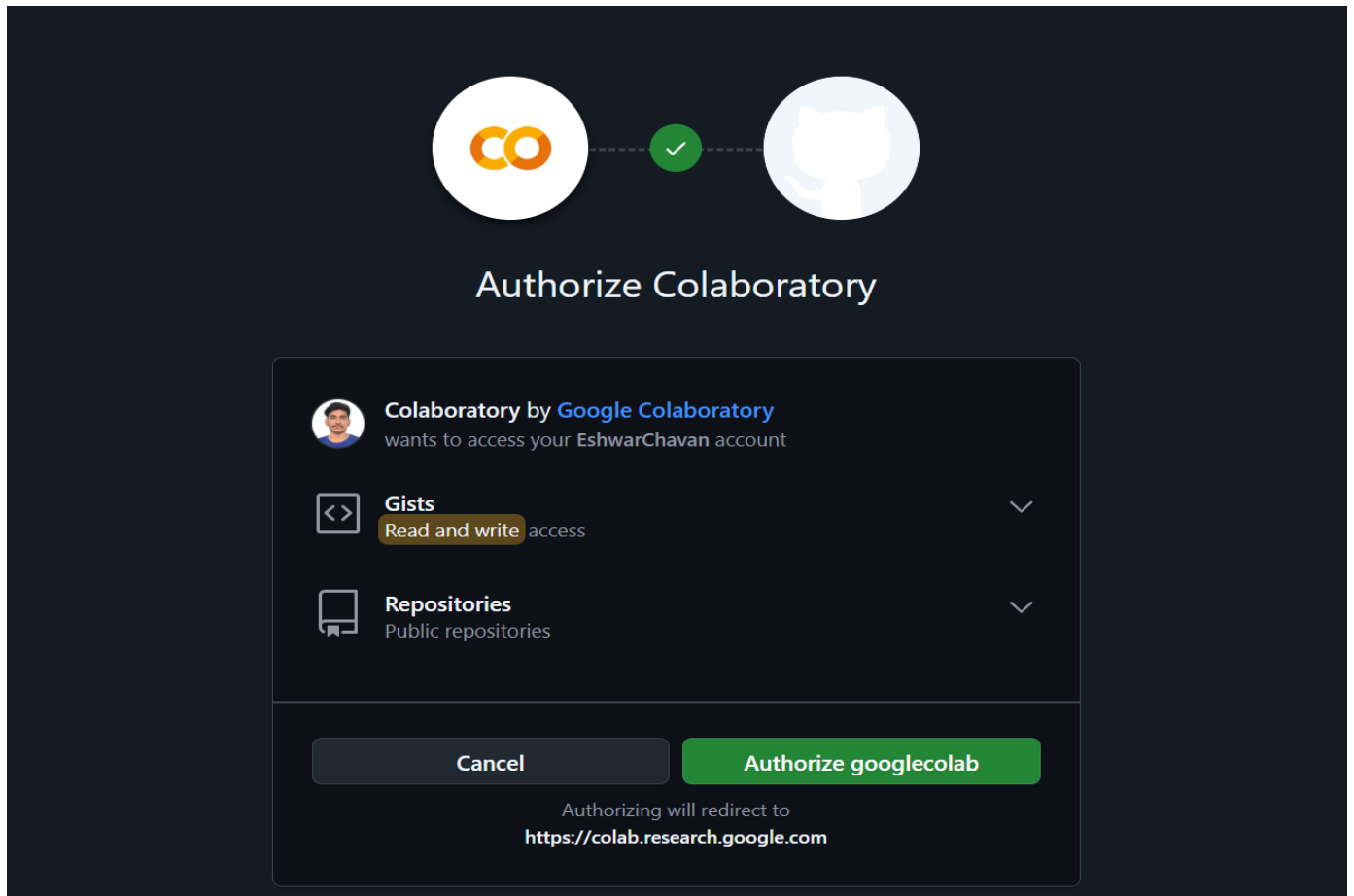
Error: The file single_input.txt does not exist.

7. **Push Versions to GitHub:**

- Uses git commands within Colab to push changes.
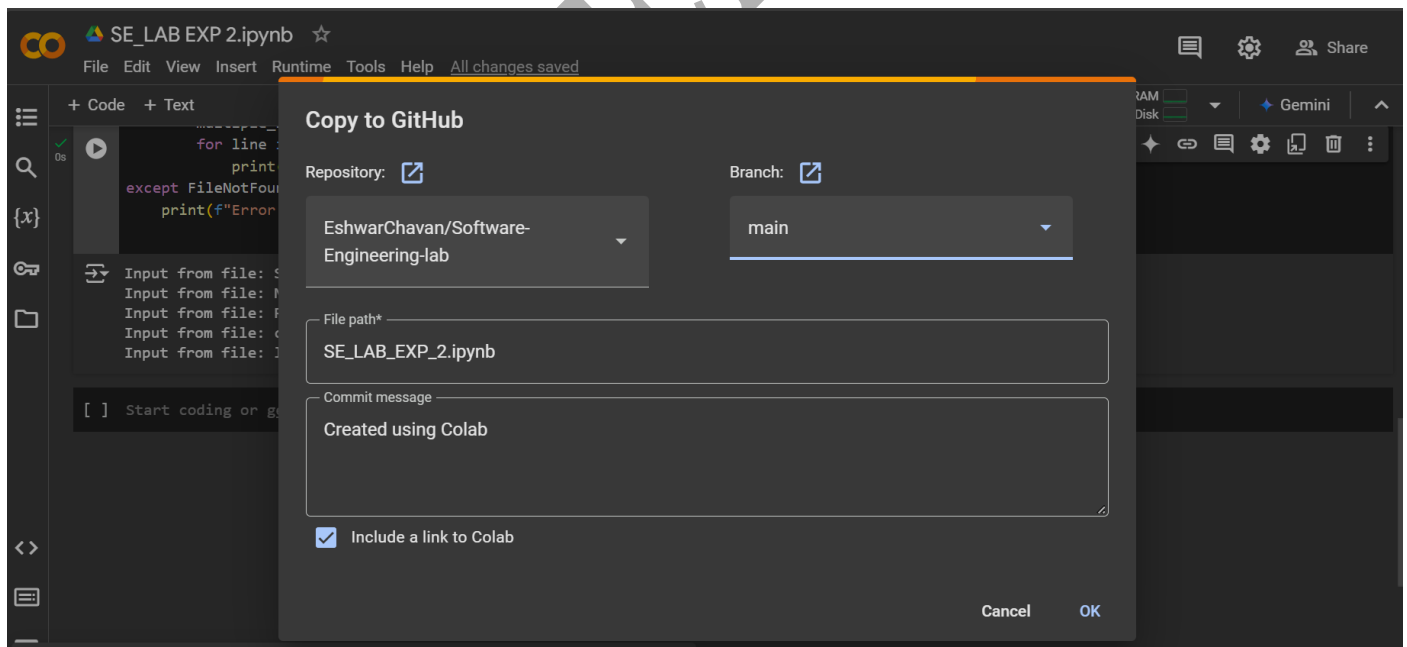
- Ensures version control and collaboration.

Step 1: Click on file and select option save a copy in GitHub

Step 2: Authorize Colaboratory

Step 3:Click on ok for copying to GitHub

Step 4: Pushed into GitHub

Files

main

Go to file

README.md
SE_LAB_EXP_2.ipynb
SOFTWARE ENGINEERING TASK ...
SOFTWARE ENGINEERING TASK ...

Software-Engineering-lab / SE_LAB_EXP_2.ipynb

EshwarChavan Created using Colab

96499a9 · now   History

Preview | Code | Blame   164 lines (164 loc) · 4.42 KB   Raw

Open in Colab

```
In [2]:  # Hardcoding Variables
         a = 1
         b = 2
         print(f"Hardcoded values: a = {a}, b = {b}")

         Hardcoded values: a = 1, b = 2

In [4]:  # Keyboard Input
         name = input("Enter your name: ")
         age = int(input("Enter your age: "))
         print(f"Name: {name}, Age: {age}")

         Enter your name: Eshwar Deshmukh Chavan
         Enter your age: 19
         Name: Eshwar Deshmukh Chavan, Age: 19
```