Software Engineering Lab Task 2

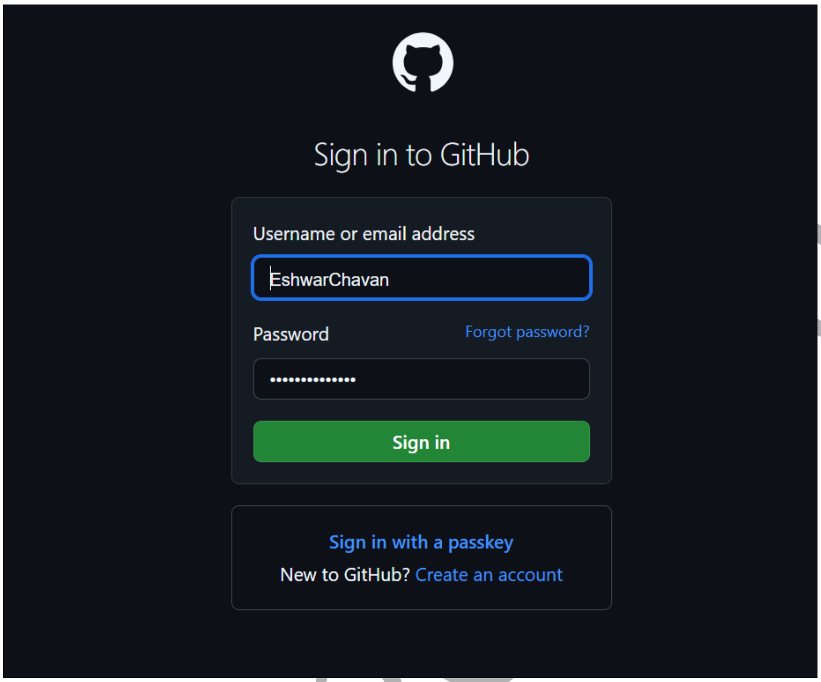
4-12-2024

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.

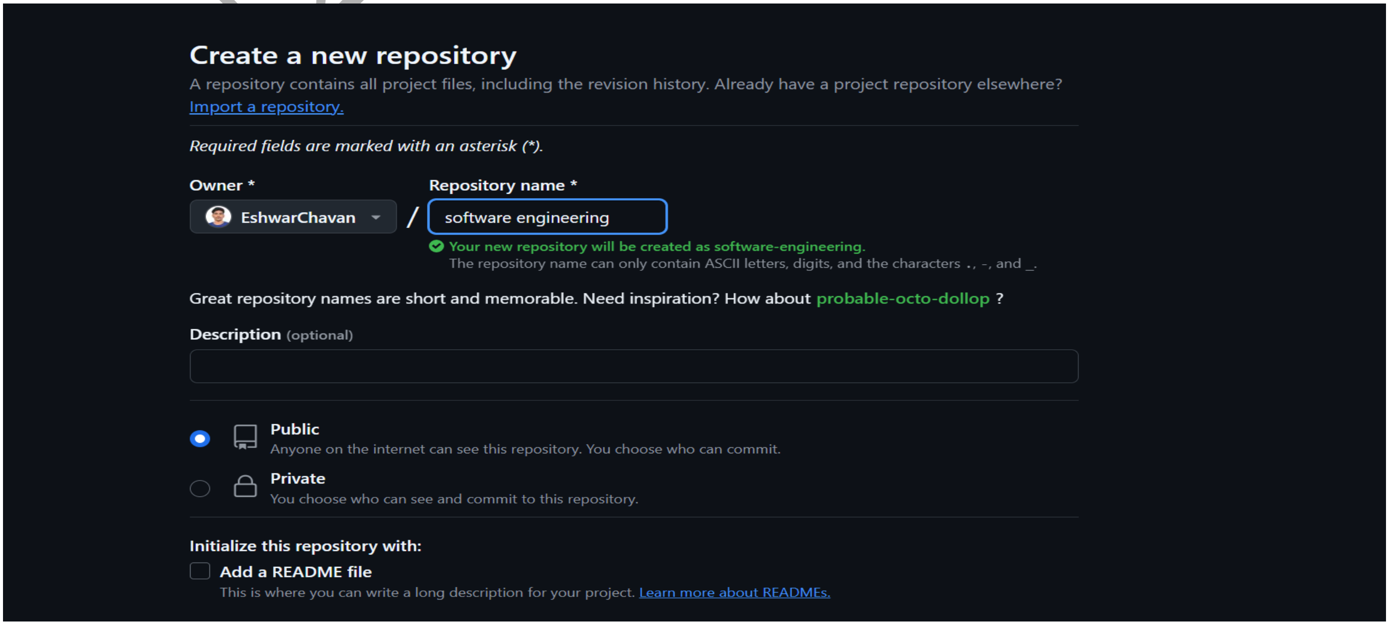


Sign in to GitHub

Username or email address: EshwarChavan

Password: ••••••••••••••

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.



Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? Import a repository.

Required fields are marked with an asterisk (*).

Owner *: EshwarChavan / Repository name *: software engineering

✓ Your new repository will be created as software-engineering.
The repository name can only contain ASCII letters, digits, and the characters ., -, and _.

Great repository names are short and memorable. Need inspiration? How about probable-octo-dollop ?

Description (optional)

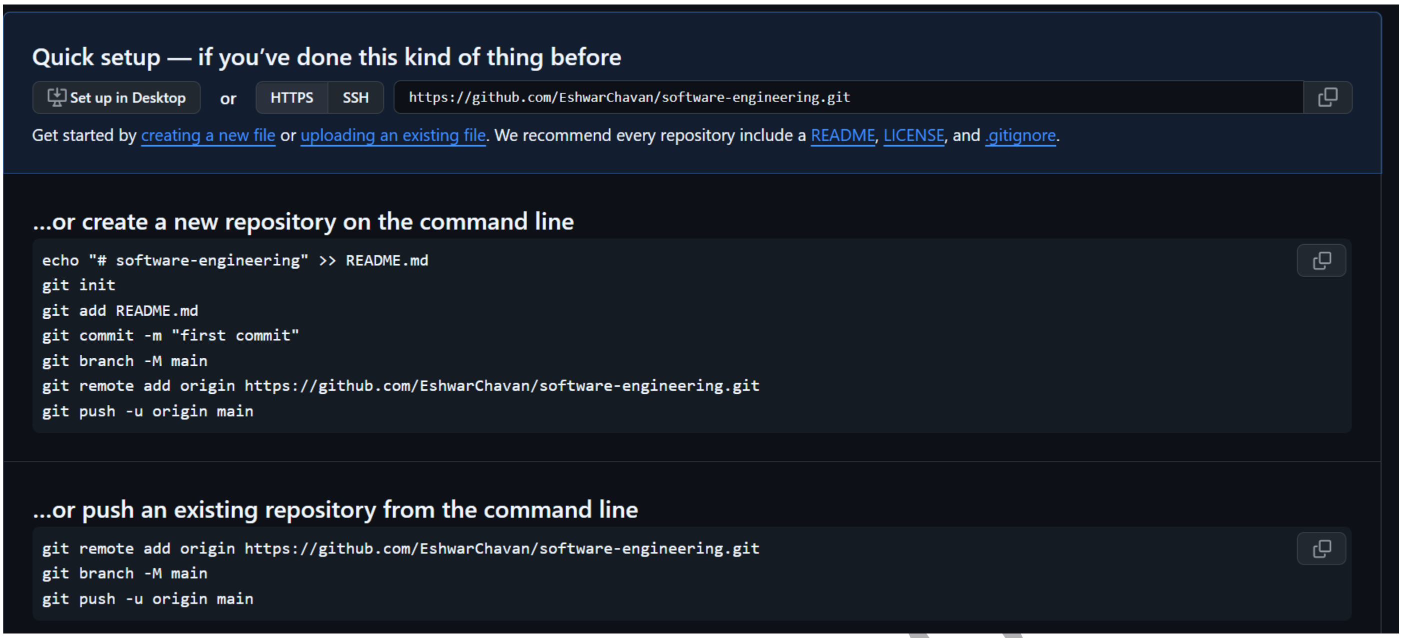
● Public
Anyone on the internet can see this repository. You choose who can commit.

○ Private
You choose who can see and commit to this repository.

Initialize this repository with:

□ Add a README file
This is where you can write a long description for your project. Learn more about READMEs.

Step 3: Copy the repository URL



Quick setup — if you've done this kind of thing before

https://github.com/EshwarChavan/software-engineering.git

Get started by creating a new file or uploading an existing file. We recommend every repository include a README, LICENSE, and .gitignore.

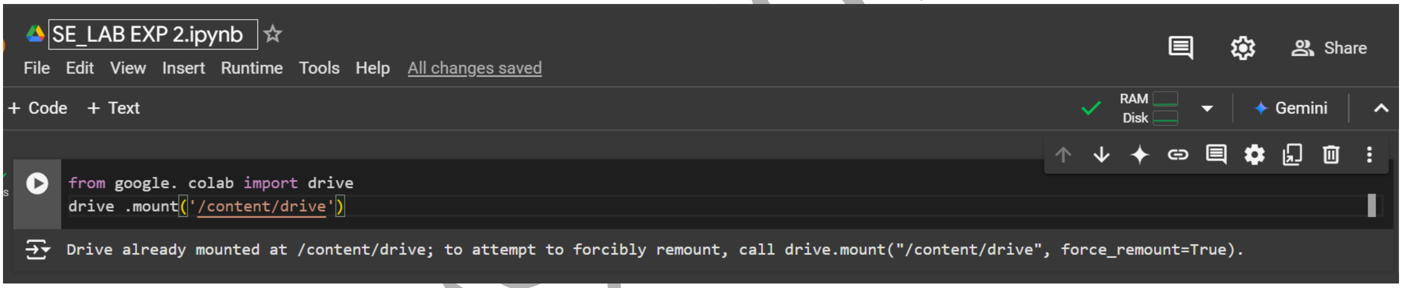
...or create a new repository on the command line

```
echo "# software-engineering" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/EshwarChavan/software-engineering.git
git push -u origin main
```

...or push an existing repository from the command line

```
git remote add origin https://github.com/EshwarChavan/software-engineering.git
git branch -M main
git push -u origin main
```

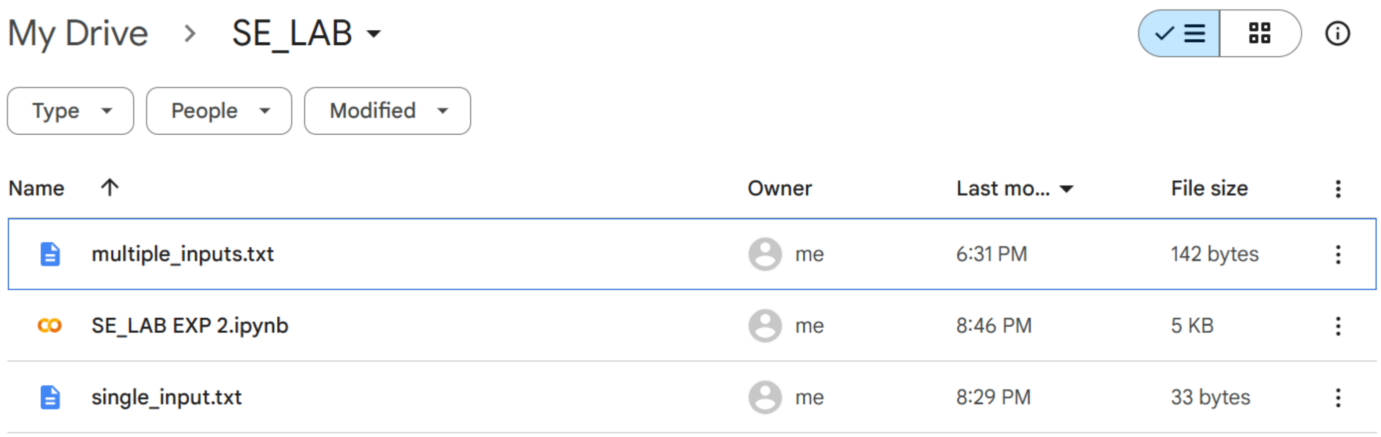
Step 4: Connect Google Colab to Google Drive and create a new notebook and mount your Google Drive.



```
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).
```

Step 5: upload the required files in Google Drive , so that we can use later

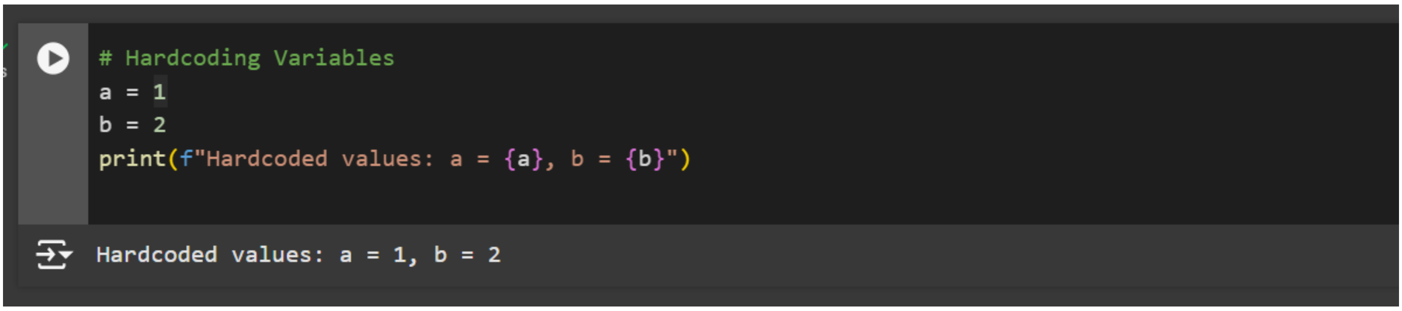


Name	Owner	Last mo...	File size
multiple_inputs.txt	me	6:31 PM	142 bytes
SE_LAB EXP 2.ipynb	me	8:46 PM	5 KB
single_input.txt	me	8:29 PM	33 bytes

Steps:

1. **Hardcoding Variables**:

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

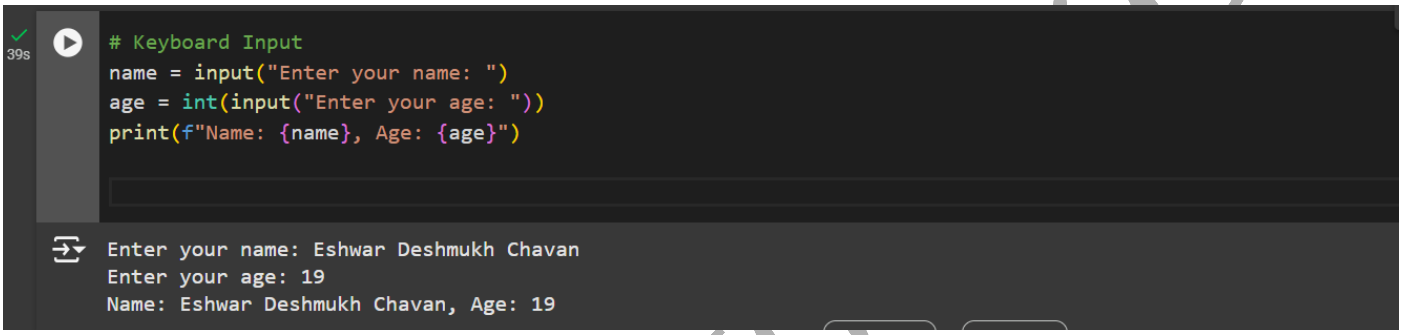


```python
# Hardcoding Variables
a = 1
b = 2
print(f"Hardcoded values: a = {a}, b = {b}")
```

```
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).

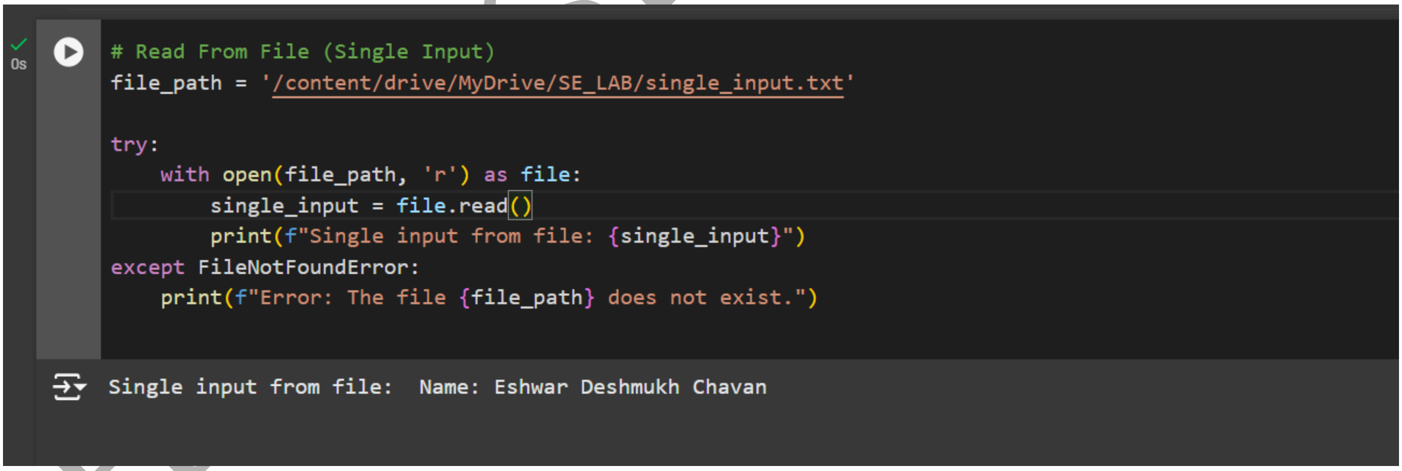


```python
# Keyboard Input
name = input("Enter your name: ")
age = int(input("Enter your age: "))
print(f"Name: {name}, Age: {age}")
```

```
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.

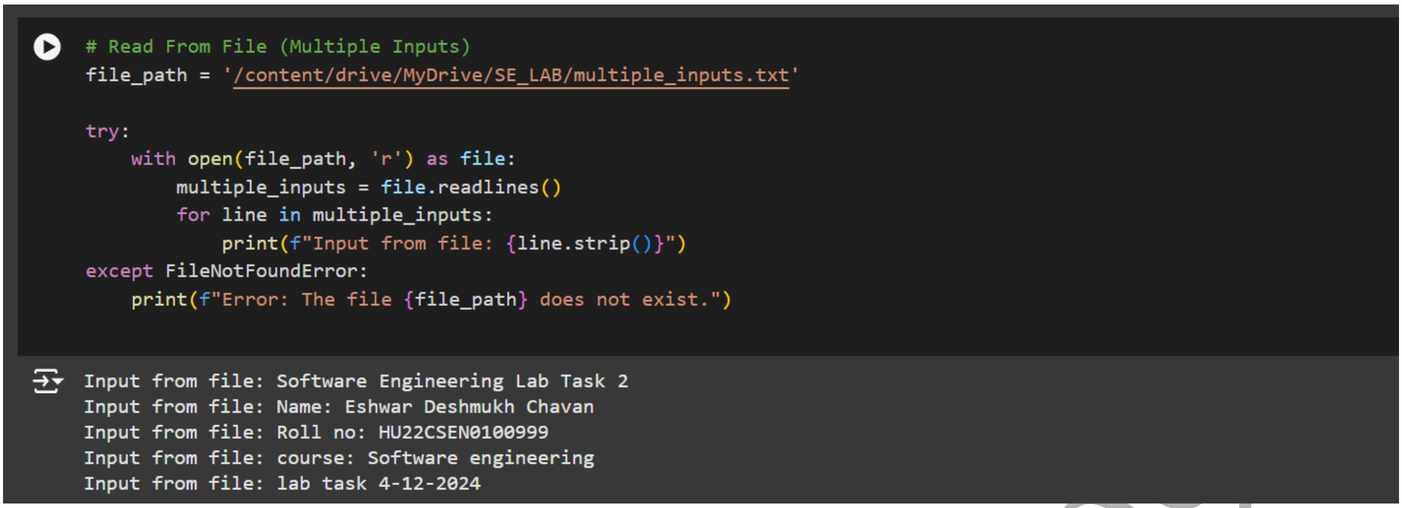


```python
# Read From File (Single Input)
file_path = '/content/drive/MyDrive/SE_LAB/single_input.txt'

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.



```python
# 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.")
```

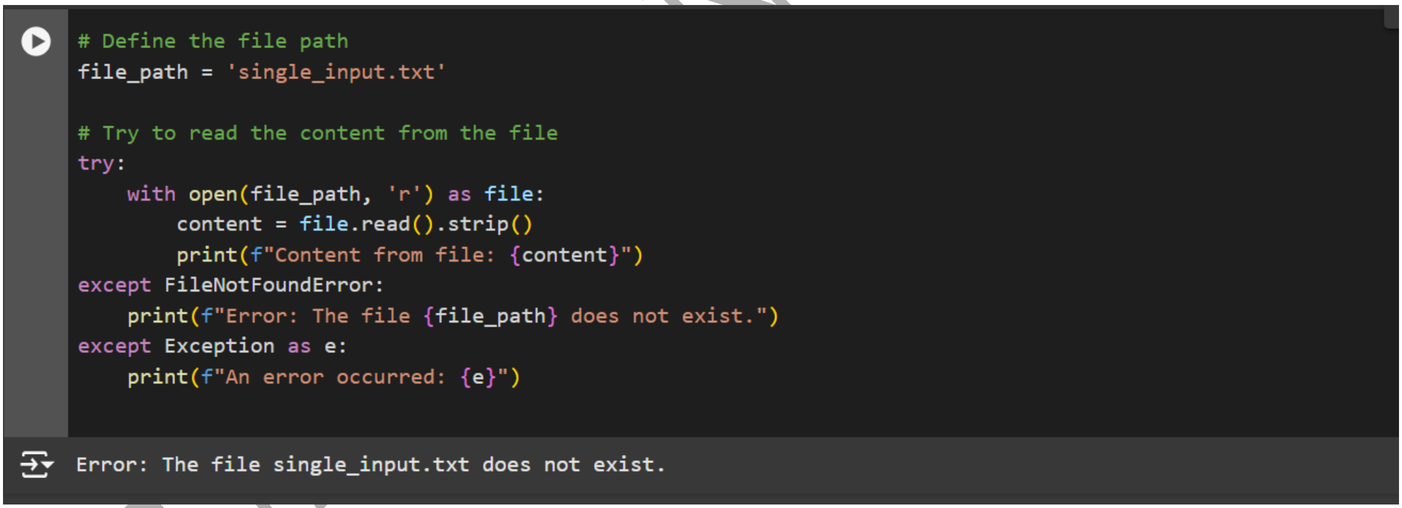
```
Input from file: Software Engineering Lab Task 2
Input from file: Name: Eshwar Deshmukh Chavan
Input from file: Roll no: HU22CSEN0100999
Input from file: course: Software engineering
Input from file: lab task 4-12-2024
```

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.



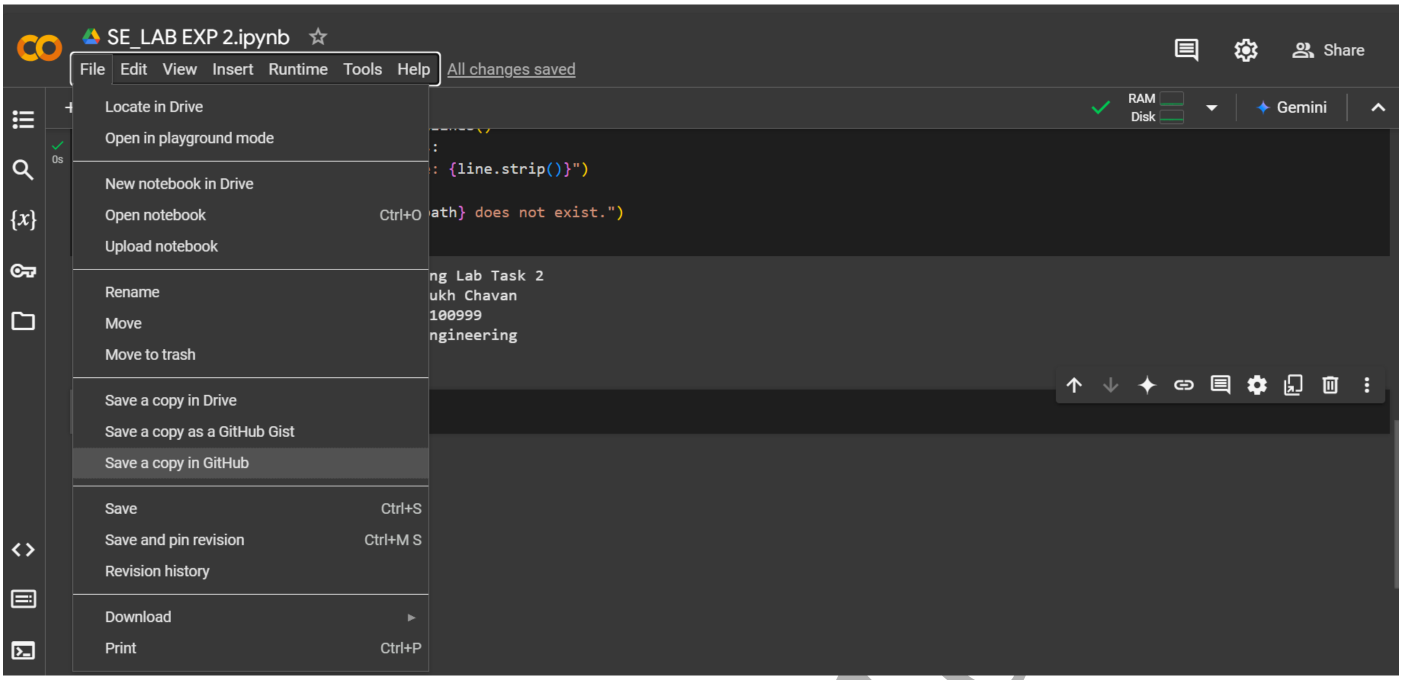
```python
# Define the file path
file_path = 'single_input.txt'

# 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



```
:
: {line.strip()}")

ath} does not exist.")
```

```
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```
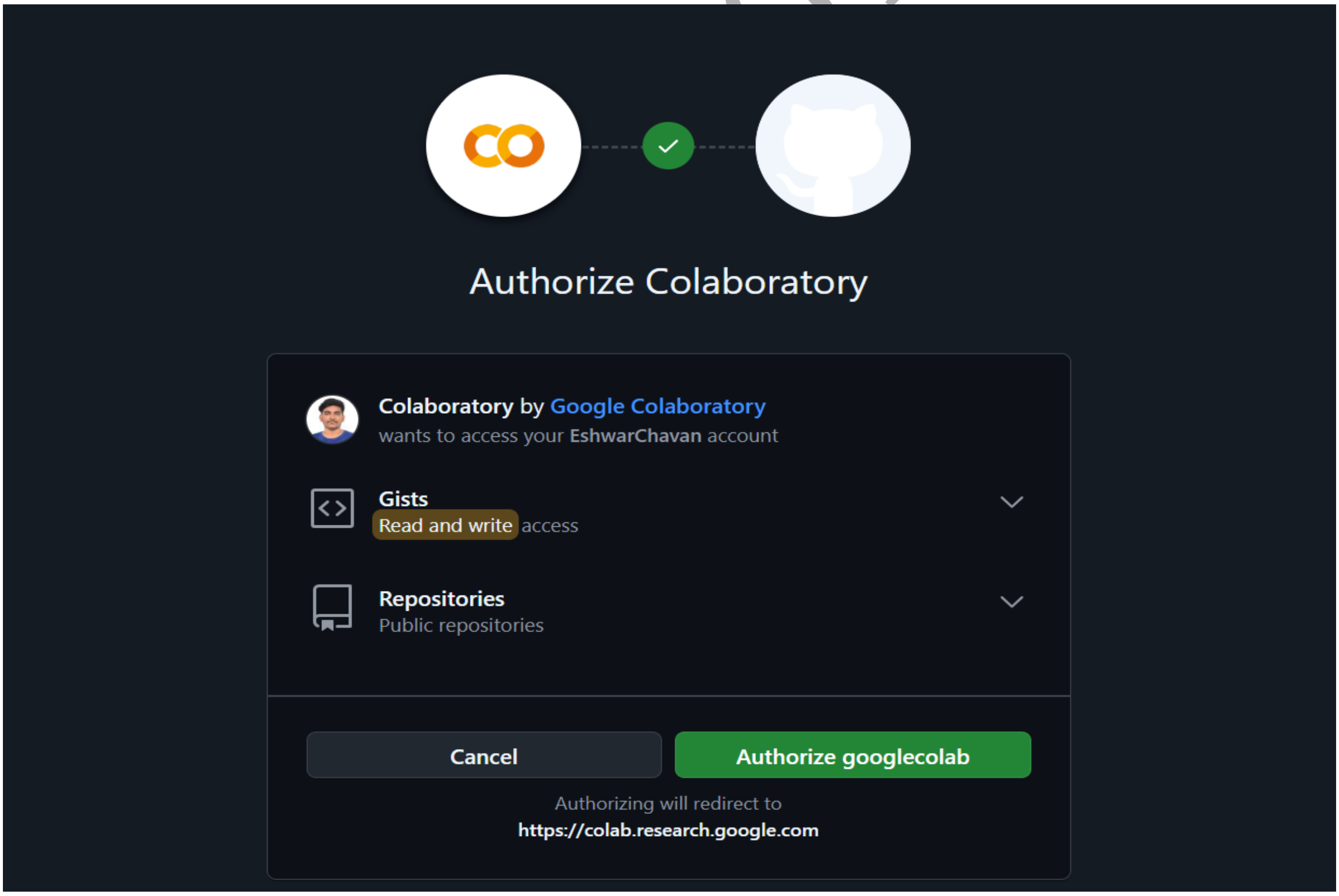

Step 2: Authorize Colaboratory



Authorize Colaboratory

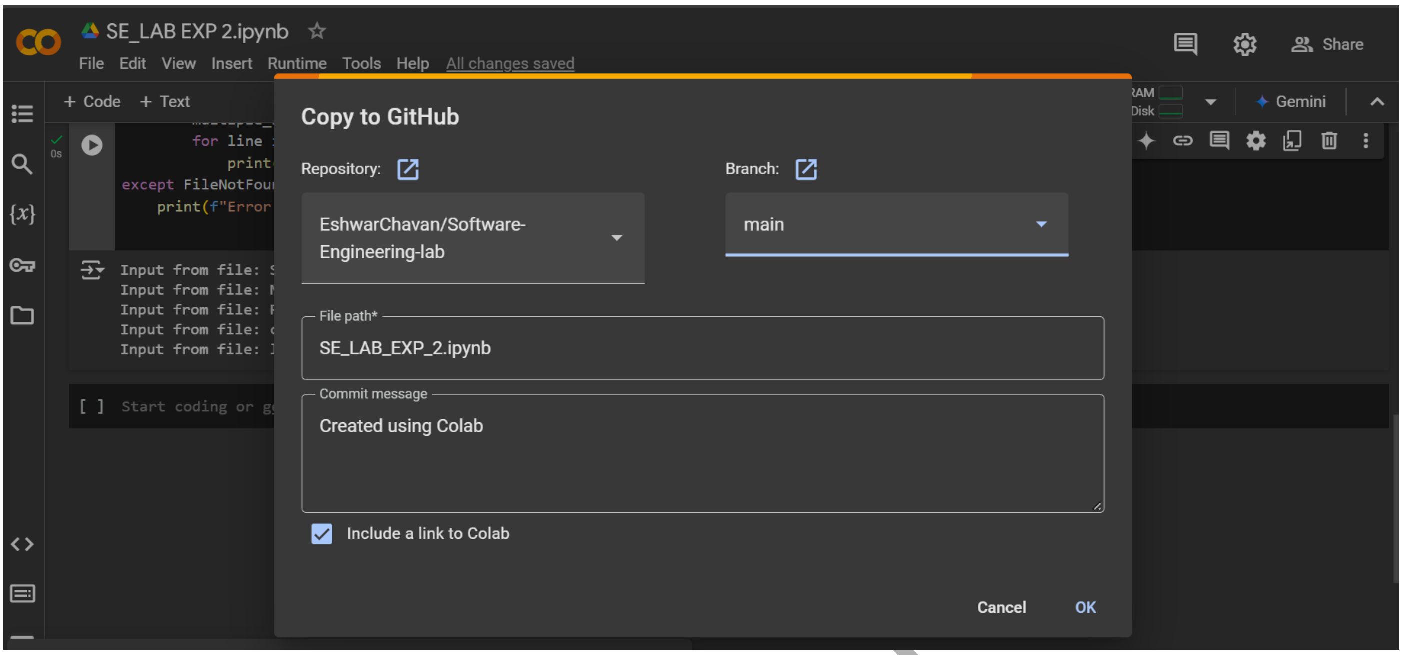
Colaboratory by Google Colaboratory
wants to access your **EshwarChavan** account

Gists
Read and write access

Repositories
Public repositories

Authorizing will redirect to
https://colab.research.google.com

Step 3:Click on ok for copying to GitHub



```
    for line
        print
except FileNotFou
    print(f"Error
```

```
Input from file:
Input from file:
Input from file:
Input from file:
Input from file:
```

Copy to GitHub

Repository: EshwarChavan/Software-Engineering-lab

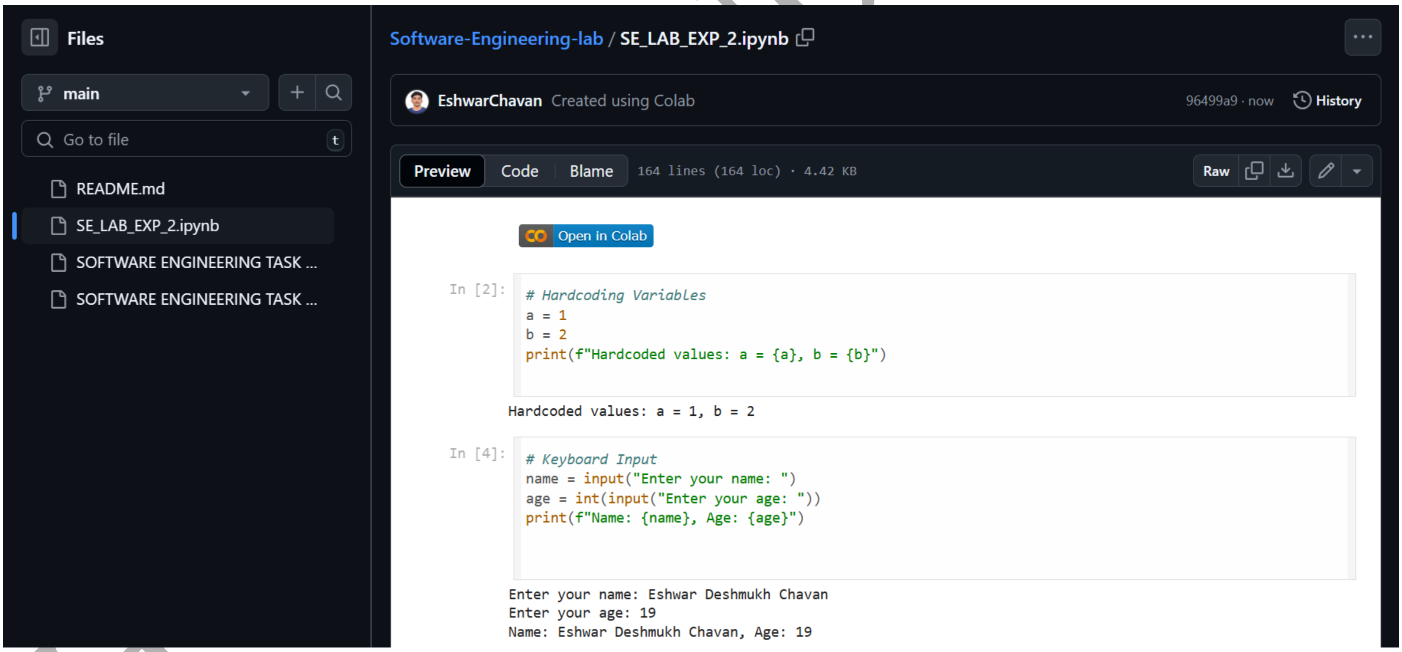
Branch: main

File path*: SE_LAB_EXP_2.ipynb

Commit message: Created using Colab

☑ Include a link to Colab

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
History
Preview Code Blame
Raw
Open in Colab

EshwarChavan Created using Colab 96499a9 · now

164 lines (164 loc) · 4.42 KB

```
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
```