Assignment 1

Title : Git & GitHub Fundamentals

Aim of the Practical: To understand and apply the fundamental concepts of Git and GitHub by performing version control operations such as forking a repository, cloning it locally, modifying/creating files, and pushing changes back to the GitHub repository using terminal commands.

Objective:

To learn the basics of Git and GitHub.
To create and manage repositories.
To fork and clone repositories.
To create and commit files using Git.
To push changes to a remote GitHub repository.
To build familiarity with command-line operations for Git.

Explanation of Tasks Performed:

1. Created a GitHub Account:
   Signed up at https://github.com with personal details and verified the email.

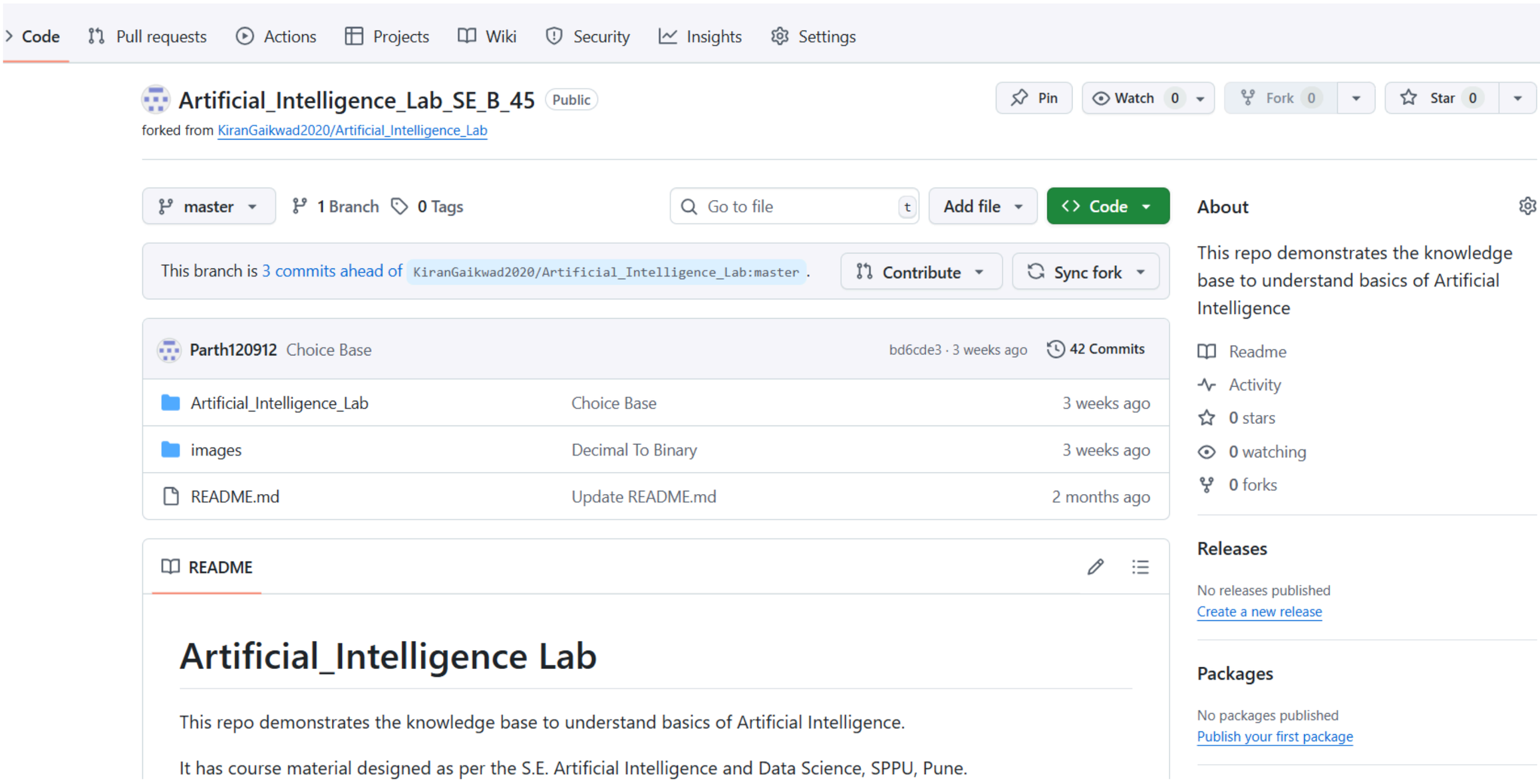
2. Forked the Instructor's Repository:
   Navigated to the provided GitHub repository link shared by the instructor.
   Clicked on the "Fork" button to create a copy of the repository under my GitHub account.

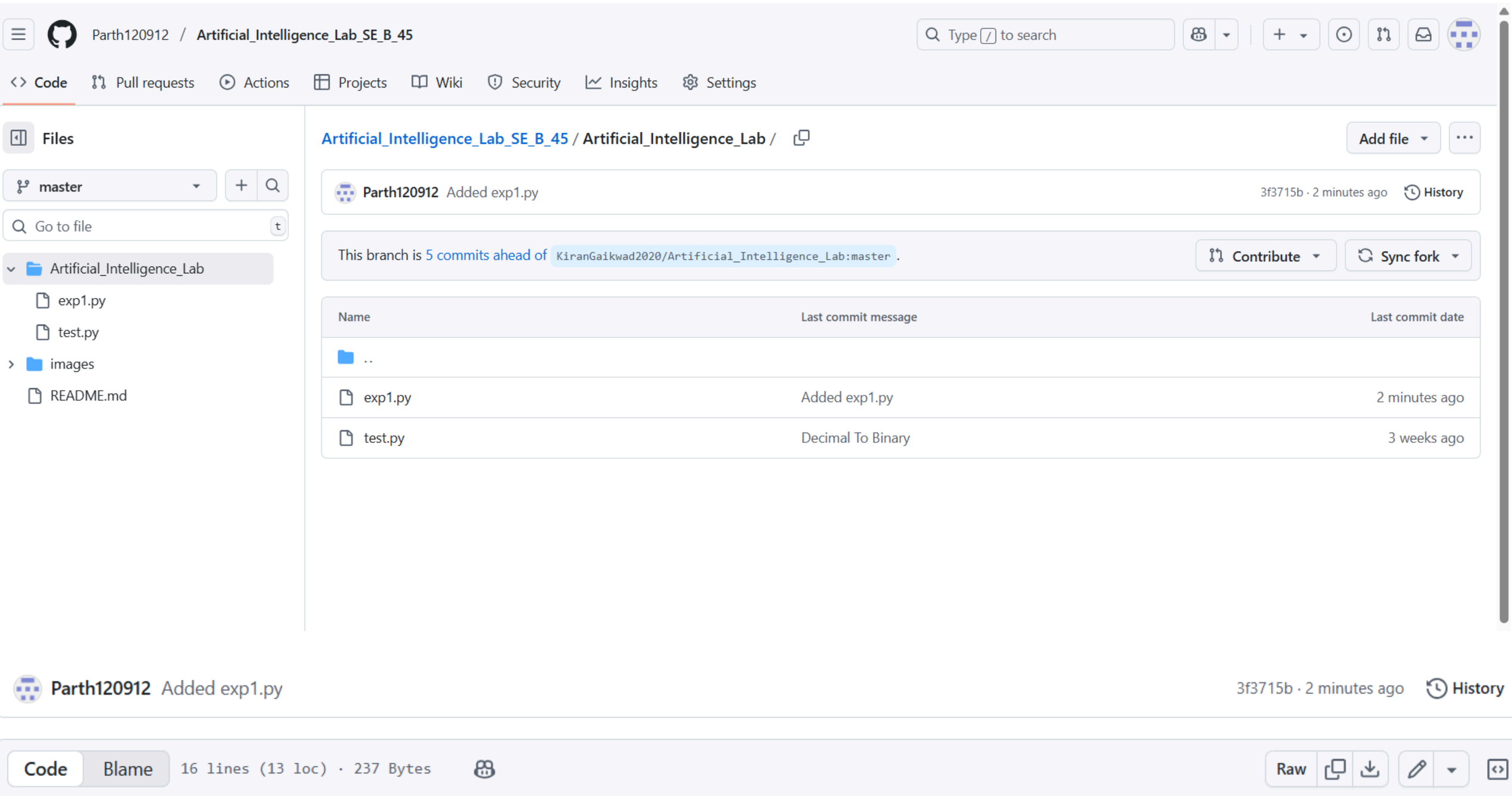
3. Cloned the Forked Repository:
 Opened the terminal.
   Used the command: git clone <URL of my forked repo> to clone the repository locally.

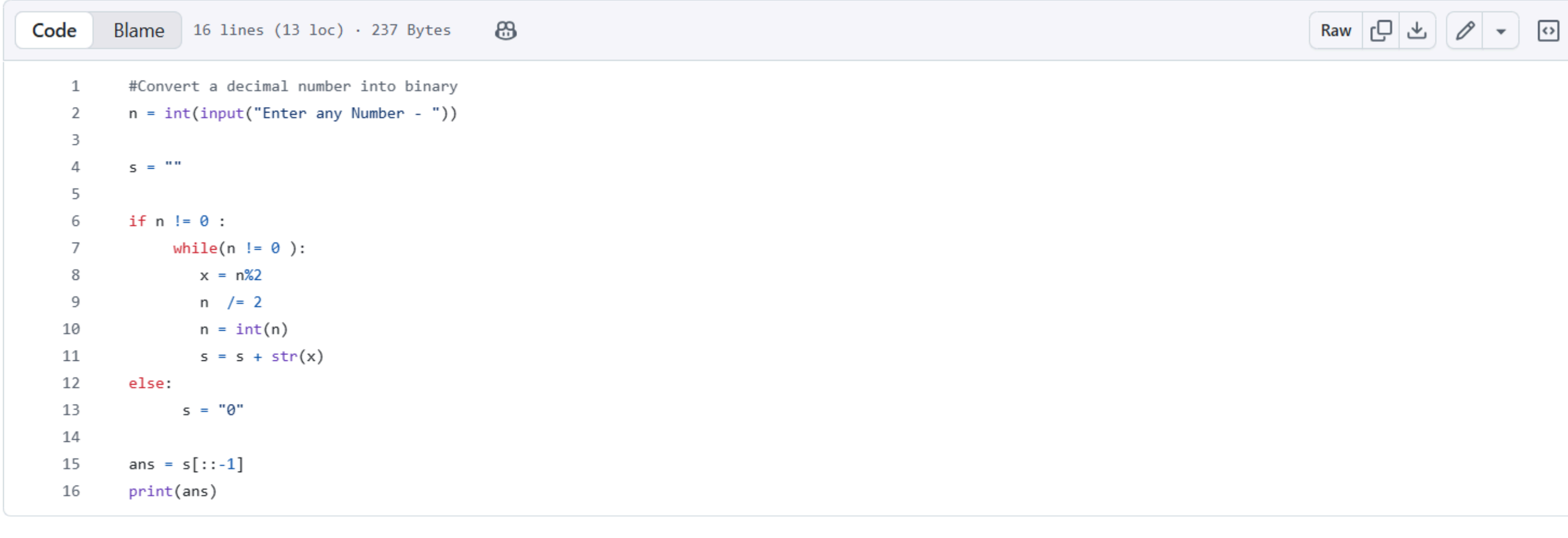
4. Created and Modified Files Locally:
 Navigated to the cloned repository folder using terminal.
   Created a new file (e.g., my_details.txt) and added relevant content.
   Used git add, git commit -m "message" , $git config --global user.email "email-id" and $git config --global user.name "name" to configure the local git environment for authenticity
 to stage and commit the changes.

5. Pushed the Changes to GitHub:
   Used the command: git push origin main (or master, depending on the default branch) to upload the committed changes to my GitHub repository.

Screenshot's








```python
#Convert a decimal number into binary
n = int(input("Enter any Number - "))

s = ""

if n != 0 :
     while(n != 0 ):
        x = n%2
        n  /= 2
        n = int(n)
        s = s + str(x)
else:
      s = "0"

ans = s[::-1]
print(ans)
```

```
Microsoft Windows [Version 10.0.26100.4652]
(c) Microsoft Corporation. All rights reserved.

D:\Programing_Coding\GitHub>git clone https://github.com/Parth120912/Artificial_Intelligence_Lab_SE_B_45.git
Cloning into 'Artificial_Intelligence_Lab_SE_B_45'...
remote: Enumerating objects: 145, done.
remote: Counting objects: 100% (56/56), done.
remote: Compressing objects: 100% (33/33), done.
remote: Total 145 (delta 23), reused 25 (delta 22), pack-reused 89 (from 1)
Receiving objects: 100% (145/145), 376.85 KiB | 435.00 KiB/s, done.
Resolving deltas: 100% (39/39), done.

D:\Programing_Coding\GitHub>cd Artificial_Intelligence_Lab_SE_B_45

D:\Programing_Coding\GitHub\Artificial_Intelligence_Lab_SE_B_45>cd Artificial_Intelligence_Lab

D:\Programing_Coding\GitHub\Artificial_Intelligence_Lab_SE_B_45\Artificial_Intelligence_Lab>git status
On branch master
Your branch is up to date with 'origin/master'.

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        exp1.py

nothing added to commit but untracked files present (use "git add" to track)

D:\Programing_Coding\GitHub\Artificial_Intelligence_Lab_SE_B_45\Artificial_Intelligence_Lab>git add exp1.py

D:\Programing_Coding\GitHub\Artificial_Intelligence_Lab_SE_B_45\Artificial_Intelligence_Lab>git status
On branch master
Your branch is up to date with 'origin/master'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   exp1.py


D:\Programing_Coding\GitHub\Artificial_Intelligence_Lab_SE_B_45\Artificial_Intelligence_Lab>git config --global user.email "parth.jaiswal24@mmit.edu.in"

D:\Programing_Coding\GitHub\Artificial_Intelligence_Lab_SE_B_45\Artificial_Intelligence_Lab>git config --global user.name "Parth Jaiswal"
```

```
D:\Programing_Coding\GitHub\Artificial_Intelligence_Lab_SE_B_45\Artificial_Intelligence_Lab>git commit -m " Added exp1.py "
[master 3f3715b]  Added exp1.py
 1 file changed, 16 insertions(+)
 create mode 100644 Artificial_Intelligence_Lab/exp1.py
```

```
D:\Programing_Coding\GitHub\Artificial_Intelligence_Lab_SE_B_45\Artificial_Intelligence_Lab>git push
Username for 'https://github.com': Parth120912
Password for 'https://Parth120912@github.com':
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 12 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 567 bytes | 567.00 KiB/s, done.
Total 4 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Parth120912/Artificial_Intelligence_Lab_SE_B_45.git
   c1cdca6..3f3715b  master -> master
```

PROBLEMS OUTPUT DEBUG CONSOLE PORTS TERMINAL

```
PS D:\Programing_Coding\GitHub\Artificial_Intelligence_Lab_SE_B_45\Artificial_Intelligence_Lab> python -u "d:\Programing_Coding\GitHub\Artificial_Intelligence_Lab_SE_B_45\Artificial_Intelligence_Lab\exp1.py"
Enter any Number - 45
101101
PS D:\Programing_Coding\GitHub\Artificial_Intelligence_Lab_SE_B_45\Artificial_Intelligence_Lab> python -u "d:\Programing_Coding\GitHub\Artificial_Intelligence_Lab_SE_B_45\Artificial_Intelligence_Lab\exp1.py"
Enter any Number - 12
1100
PS D:\Programing_Coding\GitHub\Artificial_Intelligence_Lab_SE_B_45\Artificial_Intelligence_Lab> python -u "d:\Programing_Coding\GitHub\Artificial_Intelligence_Lab_SE_B_45\Artificial_Intelligence_Lab\exp1.py"
Enter any Number - 15
```