Experiment -2.1

Student Name: Vinay   **UID:** 22BDO10040
Branch: AIT-CSE(DevOps)   **Section/Group**: 22BCD-1/A
Semester: 4th   **Date of Performance:** 07/01/2024
Subject Name: Git and Hub   **Subject Code:** 22CSH-293

1. Aim/Overview of the practical: Editing a file and committing changes on GitHub.

2. Software Used: Git Bash, GitHub.

3. Steps for experiment/practical:

1. Create or clone a repository on your local machine and open GIT BASH.

2. Create or open a file in the master or main branch , eg , **file.c**
3. Add the file to the staging area using **git add** and then commit the changes using the **gitcommit** command.

```
thaku@LAPTOP-D9AREPUF MINGW64 ~/first (main)
$ cat file.c
exp4

thaku@LAPTOP-D9AREPUF MINGW64 ~/first (main)
$ git add file.c

thaku@LAPTOP-D9AREPUF MINGW64 ~/first (main)
$ git commit -m "added"
[main 4334872] added
 1 file changed, 1 insertion(+)
 create mode 100644 file.c
```
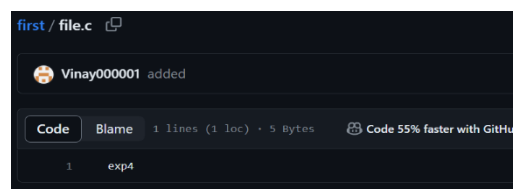
4. Pull the changes to the remote repo using the command **git push <remote_name> <branch_name>**.

```
thaku@LAPTOP-D9AREPUF MINGW64 ~/first (main)
$ git push origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 267 bytes | 267.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/Vinay000001/first.git
   88f0090..4334872  main -> main
```

5. You will be able to see the changes in the remote repository.

```
thaku@LAPTOP-D9AREPUF MINGW64 ~/first (main)
$ cat file.c
exp4
```

first / file.c

Vinay000001 added

Code   Blame   1 lines (1 loc) · 5 Bytes   Code 55% faster with GitHub

1   exp4

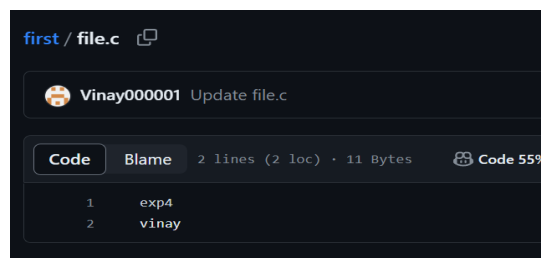(local)   (remote)

6. Now, make some changes in the file in the remote repository and pull those changes inthe local repository.

```
thaku@LAPTOP-D9AREPUF MINGW64 ~/first (main)
$ git pull origin main
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 918 bytes | 91.00 KiB/s, done.
From https://github.com/Vinay000001/first
 * branch            main        -> FETCH_HEAD
   4334872..6431889  main        -> origin/main
Updating 4334872..6431889
Fast-forward
 file.c | 1 +
 1 file changed, 1 insertion(+)
```

```
thaku@LAPTOP-D9AREPUF MINGW64 ~/first (main)
$ cat file.c
exp4
vinay
```

first / file.c

Vinay000001 Update file.c

Code | Blame   2 lines (2 loc) · 11 Bytes   Code 55%

```
1    exp4
2    vinay
```

(remote)   (local)

7. Create a new branch and checkout to it using the **git checkout -b** command , eg , **test**.
8. Open the **file.c** on the **vi** editor and make some changes in it.

```
thaku@LAPTOP-D9AREPUF MINGW64 ~/first (main)
$ git checkout -b test
fatal: a branch named 'test' already exists

thaku@LAPTOP-D9AREPUF MINGW64 ~/first (main)
$ git checkout test
Switched to branch 'test'

thaku@LAPTOP-D9AREPUF MINGW64 ~/first (test)
$ vi file.c

thaku@LAPTOP-D9AREPUF MINGW64 ~/first (test)
$ git add file.c

thaku@LAPTOP-D9AREPUF MINGW64 ~/first (test)
$ git commit -m "changed"
[test ec58ff4] changed
 1 file changed, 3 insertions(+)
 create mode 100644 file.c
```

9. Merge the changes made in the **test** branch with the **master** branch and resolve theconflicts manually if necessary.
10. Push the **master** and **test** branch onto the remote repository.

DEPARTMENT OF
ACADEMIC AFFAIRS
Discover. Learn. Empower.

NAAC
GRADE A+
ACCREDITED UNIVERSITY

11. You will be able to see the new changes in the remote repository.
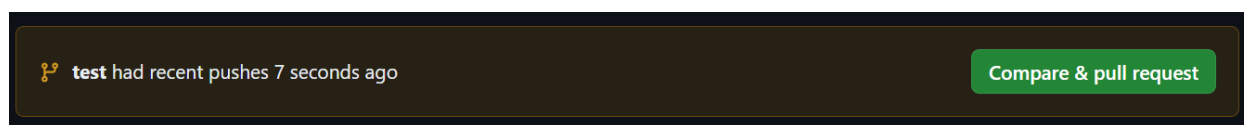

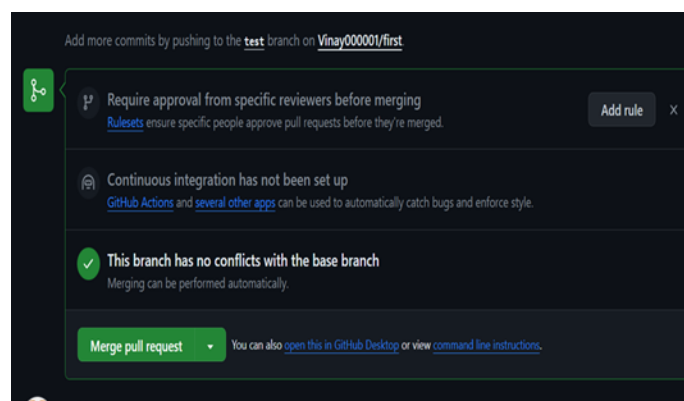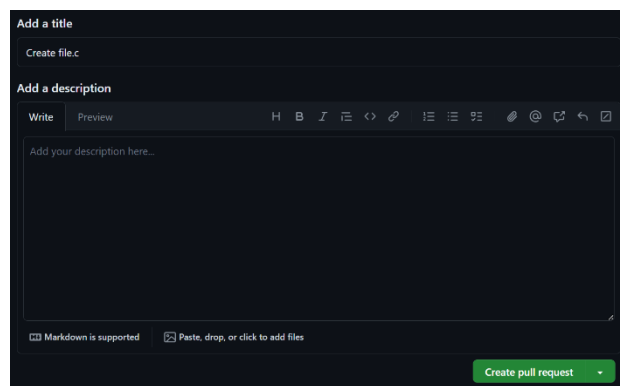(local)   (remote)

12. Now, Go to github, open the repository and move to the **test** branch and make somechanges in a file.
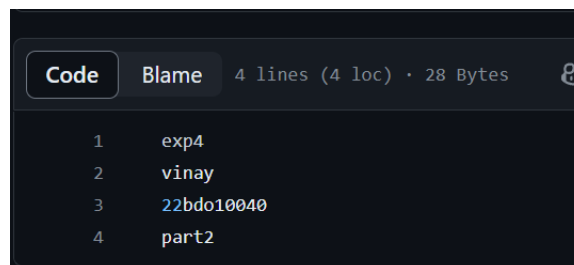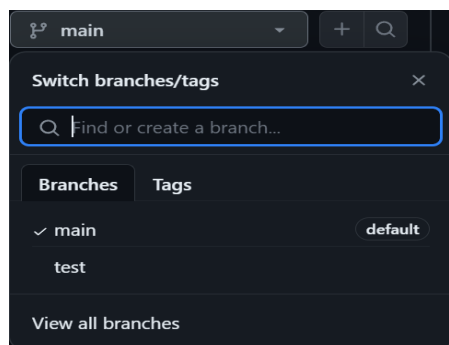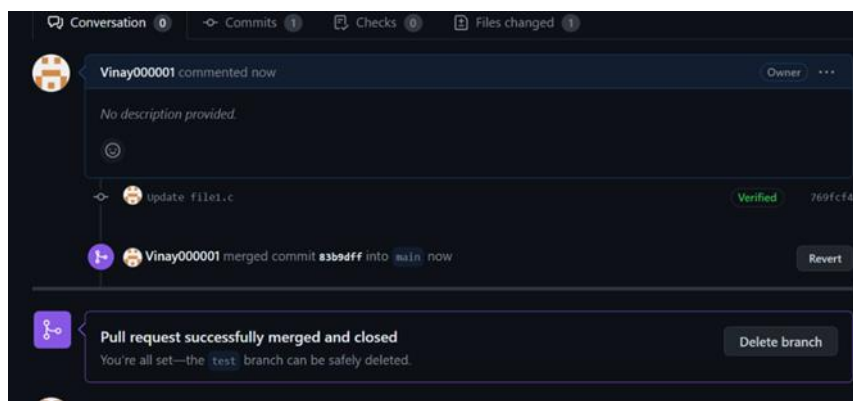
13. Commit the changes and move to the **master** branch. Click on the **Compare & Pullrequest**.

14. **Create the pull request,** resolve the merge conflicts (if any) and then **merge pullrequest**.
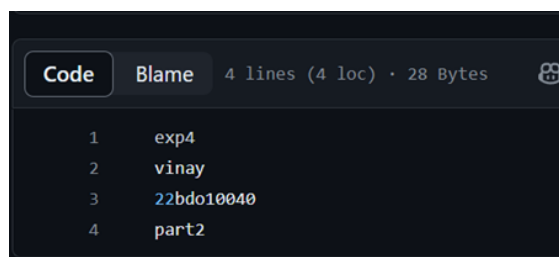

15. After the merging, you may choose to delete your branch , i.e , **test**

DEPARTMENT OF
ACADEMIC AFFAIRS
Discover. Learn. Empower.

NAAC
GRADE A+
ACCREDITED UNIVERSITY

16. Now, pull the changes to the local repository using **git pull**.

17. You will be able to see the changes in your local repository.

(remote)   (local)

4. **Result/Output/Writing Summary:**

In this experiment, we have edited a file in the local repository and shown the changes on the remote repository and vice versa. For this purpose, we have made use of both Git and GitHub.

Learning outcomes (What I have learnt):

1. Learnt how to create a branch.

2. Learnt how to push the changes to the remote repository.

3. Learnt how to pull the changes from the remote repository.

4. Learnt to merge two branches.

5. Learnt how to resolve merge conflicts.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			