Experiment -2.2

Install Git and creating repository.

Student Name: Shubham Kumar **UID: 22BDO10033**
Branch: CSE(DevOps) **Section/Group: 22BCD-1/A**
Semester: 4th **Date of Performance:21/02/24**
Subject Name: Git and GitHub **Subject Code: 22CHS-293**

1. Aim/Overview of the practical: To Merge Pull Request and Update local repository on GitHub

2. Task to be done: - Merge and update pull request.

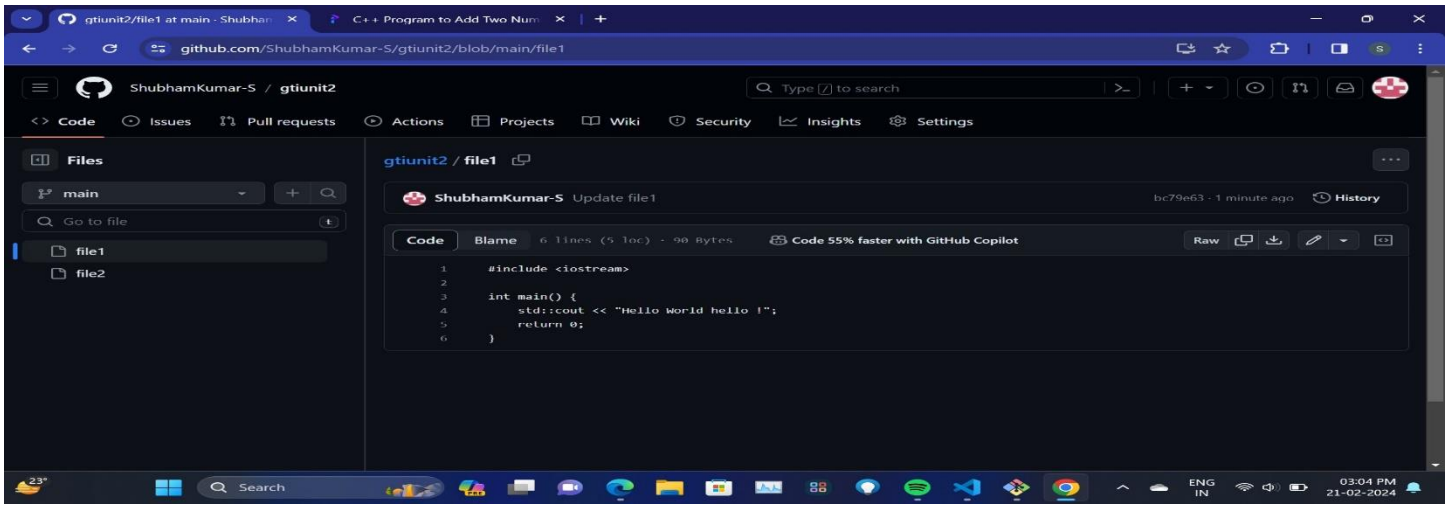
3. Steps for experiment/practical:

1. **Create a new file: -** Create a repository on local machine on Git Bash.
   Make a repository on GitHub after that clone the repository on local mechine.

```
MINGW64:/c/Users/Shubham/Exp4

Shubham@DESKTOP-JHPLKQP MINGW64 ~
$ git clone https://github.com/ShubhamKumar-S/Exp4.git
Cloning into 'Exp4'...
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (4/4), 12.73 KiB | 814.00 KiB/s, done.
```

2. Create and open a file in the main or master branch, branch named **file.txt** after that add Some text you want to add to the file.



3. Now add the to the staging area using "command **git add"** and then commit changes using the command **"git commit"** or we can use command **"git commit -a-m"<commit_msg>"** or **git commit -am "<commit_msg>".**

```
Shubham@DESKTOP-JHPLKQP MINGW64 ~
$ cd Exp4

Shubham@DESKTOP-JHPLKQP MINGW64 ~/Exp4 (main)
$ git add file.c
fatal: pathspec 'file.c' did not match any files
```

```
Shubham@DESKTOP-JHPLKQP MINGW64 ~/Exp4 (main)
$ git commit -m "Added file.c"
[main 30c3557] Added file.c
 1 file changed, 1 insertion(+)
 create mode 100644 file1.c
```

4. Now we have to create a new branch and checkout to it using the command **git checkout -b**, e.g. branch1. After that Open the file1.c on the vi editor and make some changes in it.

```
Shubham@DESKTOP-JHPLKQP MINGW64 ~/git2 (master)
$ git checkout -b branch1
Switched to a new branch 'branch1'

Shubham@DESKTOP-JHPLKQP MINGW64 ~/git2 (branch1)
$ vi file1.txt

Shubham@DESKTOP-JHPLKQP MINGW64 ~/git2 (branch1)
$ git checkout master
Switched to branch 'master'
M       file1.txt

Shubham@DESKTOP-JHPLKQP MINGW64 ~/git2 (master)
$ git checkout branch1
Switched to branch 'branch1'
M       file1.txt

Shubham@DESKTOP-JHPLKQP MINGW64 ~/git2 (branch1)
$ git add file1.txt

Shubham@DESKTOP-JHPLKQP MINGW64 ~/git2 (branch1)
$ git commit -m "file commited"
[branch1 78cb53e] file commited
 1 file changed, 1 insertion(+)

Shubham@DESKTOP-JHPLKQP MINGW64 ~/git2 (branch1)
$ git checkout master
Switched to branch 'master'
```

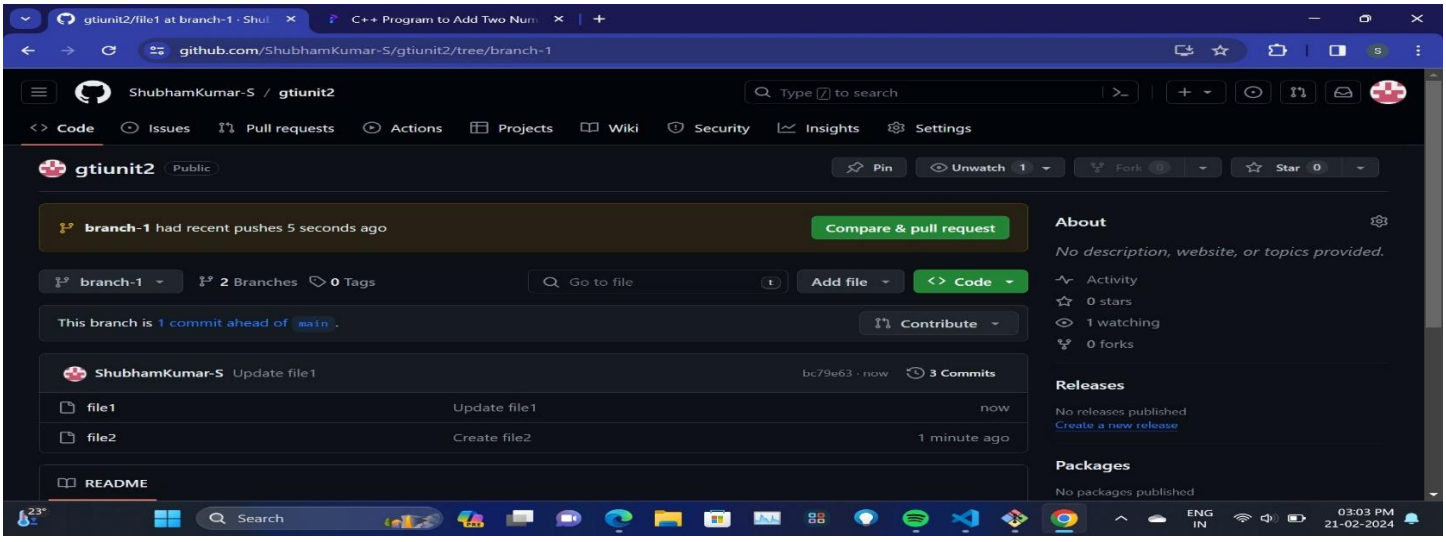
5. After creating branch then we have to Merge the changes made in the **Branch1** branch with the **main** branch and resolve the conflicts manually if necessary using the **git merge** command

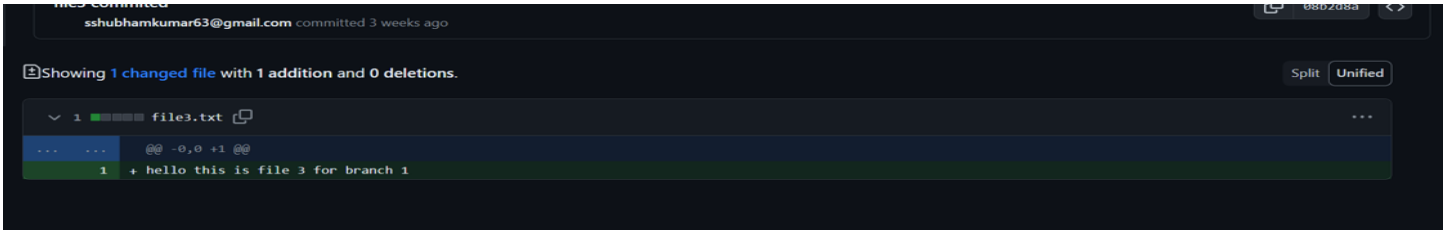
```
Shubham@DESKTOP-JHPLKQP MINGW64 ~/git2 (branch1)
$ git checkout master
Switched to branch 'master'

Shubham@DESKTOP-JHPLKQP MINGW64 ~/git2 (master)
$ git merge branch1
Updating 0e26408..78cb53e
Fast-forward
 file1.txt | 1 +
 1 file changed, 1 insertion(+)

Shubham@DESKTOP-JHPLKQP MINGW64 ~/git2 (master)
$ cat file1.txt
this is file 2 for unit 2
here we making change
```

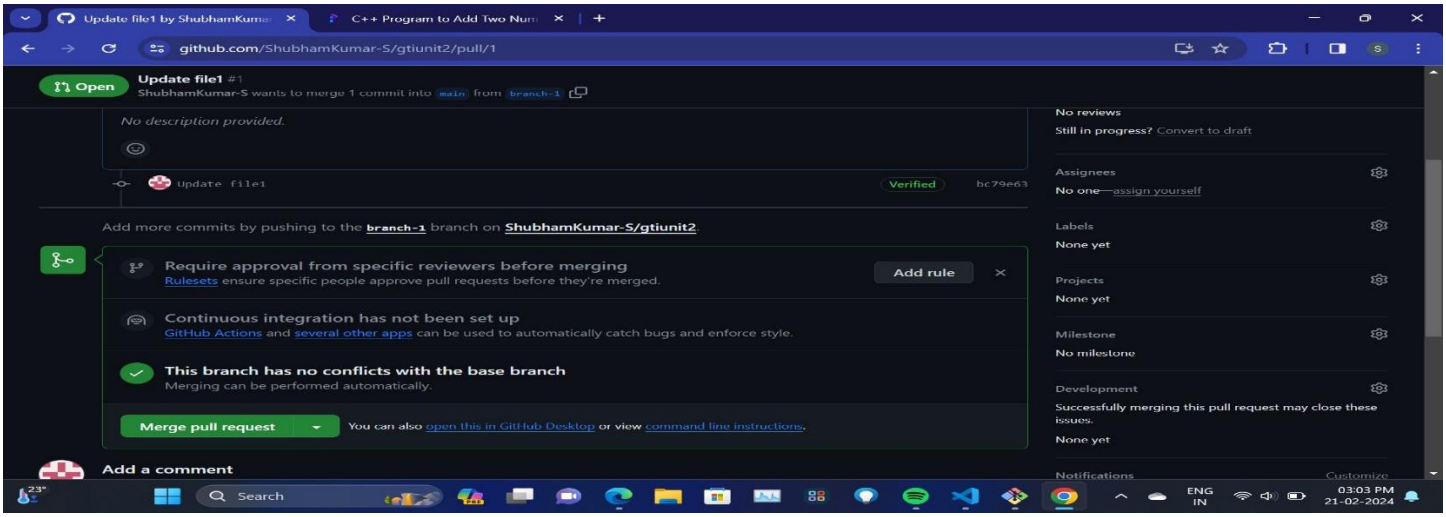
6. Now go to the GitHub, open the repository and move to the **Branch1** branch and make some changes in a file.



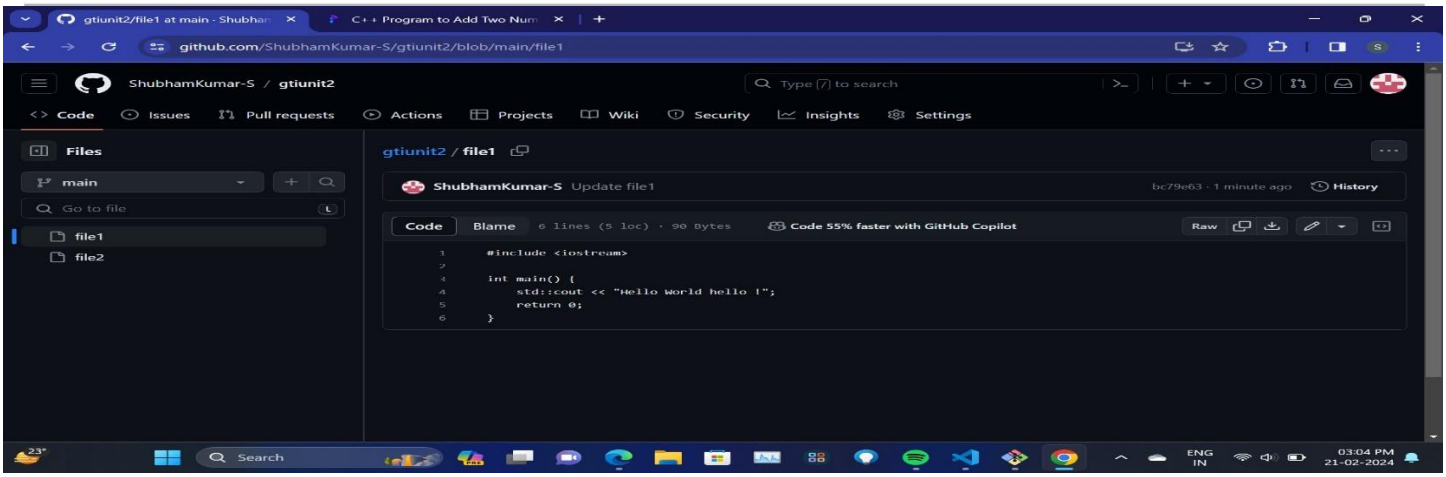


7. After that commit the changes and move to the main branch. "Click on th**e Compare & pull request.**

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



9. After merging, we may chose to delete branch, i.e. **Branch1**



4. Result/Output/Writing Summary:

In this experiment, we have merged a file in a branch to the master or main branch on both the local as well as remote repository.

Learning outcomes (What I have learnt):

1 Learnt about cloning of repository.

2. Learnt how to create a branch.

3. Learnt how to create a pull request and handle their merging.

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.			