Experiment -1.3

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Section/Group: 22BCD-1/A
Semester: 4th
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Subject Name: Git and Hub
Subject Code: 22CSH-293

1. **Aim/Overview of the practical:** To create and explore pull requests.

2. **Software Used:** Git Bash, GitHub.

3. **Steps for experiment/practical:**

- ❖ Create or clone a repository on your local machine and open GIT BASH.
- ❖ Move to the directory using the **cd** command.

- ❖ Create a file in the master or main branch , eg , **file1.c** and add some text to the file.

```
ASUS@LAPTOP-1RQUJV7T MINGW64 ~/Desktop/git hub practical (master)
$ git clone https://github.com/beanand47/simplework.git
Cloning into 'simplework'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (3/3), 12.68 KiB | 227.00 KiB/s, done.

ASUS@LAPTOP-1RQUJV7T MINGW64 ~/Desktop/git hub practical (master)
$ cd anand
bash: cd: anand: No such file or directory

ASUS@LAPTOP-1RQUJV7T MINGW64 ~/Desktop/git hub practical (master)
$ cd simplework
```

- Add the file to the staging area using **git add** and then commit the changes using the **git commit** command.

```
ASUS@LAPTOP-1RQUJV7T MINGW64 ~/Desktop/git hub practical/simplework (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

ASUS@LAPTOP-1RQUJV7T MINGW64 ~/Desktop/git hub practical/simplework (main)
$ touch file1.c

ASUS@LAPTOP-1RQUJV7T MINGW64 ~/Desktop/git hub practical/simplework (main)
$ vi file1.c

ASUS@LAPTOP-1RQUJV7T MINGW64 ~/Desktop/git hub practical/simplework (main)
$ git add file1.c
warning: in the working copy of 'file1.c', LF will be replaced by CRLF the next
time Git touches it

ASUS@LAPTOP-1RQUJV7T MINGW64 ~/Desktop/git hub practical/simplework (main)
$ git commit -m "wrote work"
[main d2a0b1d] wrote work
 1 file changed, 1 insertion(+)
 create mode 100644 file1.c
```

- Create a new branch and checkout to it using the **git checkout -b** command , eg , **test**.
- Open the **file1.c** on the **vi** editor and make some changes in it.

```
MINGW64:/c/Users/ASUS/Desktop/git hub practical/simplework
#include<stdio.h>
int main(){
        printf("hello 2 world")
};
```

(test)

- Repeat step 4 again.

```
ASUS@LAPTOP-1RQUJV7T MINGW64 ~/Desktop/git hub practical/simplework (main)
$ vi file1.c

ASUS@LAPTOP-1RQUJV7T MINGW64 ~/Desktop/git hub practical/simplework (main)
$ git add file1.c
warning: in the working copy of 'file1.c', LF will be replaced by CRLF the next
time Git touches it

ASUS@LAPTOP-1RQUJV7T MINGW64 ~/Desktop/git hub practical/simplework (main)
$ git commit -m "wrote hello world"
[main 10c2f73] wrote hello world
 1 file changed, 4 insertions(+), 1 deletion(-)

ASUS@LAPTOP-1RQUJV7T MINGW64 ~/Desktop/git hub practical/simplework (main)
$ git config --global user.name"beanand47"

ASUS@LAPTOP-1RQUJV7T MINGW64 ~/Desktop/git hub practical/simplework (main)
$ git status
On branch main
Your branch is ahead of 'origin/main' by 2 commits.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean

ASUS@LAPTOP-1RQUJV7T MINGW64 ~/Desktop/git hub practical/simplework (main)
$ git checkout -b test
Switched to a new branch 'test'
```

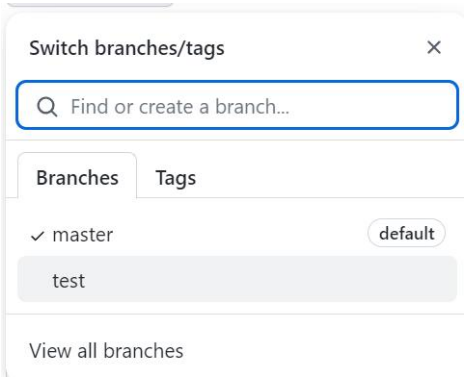
- Merge the **test** branch in the **master** branch using the **git merge <branch_name>** command and resolve the merge conflict if necessary.

```
$ git merge test
Updating 13760a6..cc871dd
Fast-forward
 file1.c | 2 +-
 1 file changed, 1 insertion(+), 1 deletion(-)
```

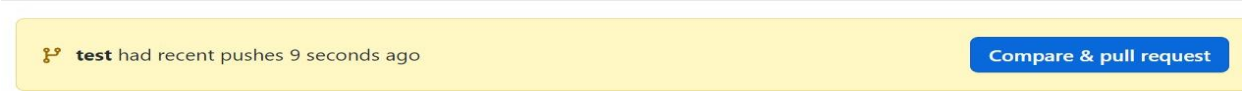
- Now, push your changes in the **master** and **test** branch to the remote repository.

```
ASUS@LAPTOP-1RQUJV7T MINGW64 ~/Desktop/git hub practical/simplework (test)
$ git push origin test
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 8 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (6/6), 574 bytes | 574.00 KiB/s, done.
Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'test' on GitHub by visiting:
remote:      https://github.com/beanand47/simplework/pull/new/test
remote:
To https://github.com/beanand47/simplework.git
 * [new branch]      test -> test
```

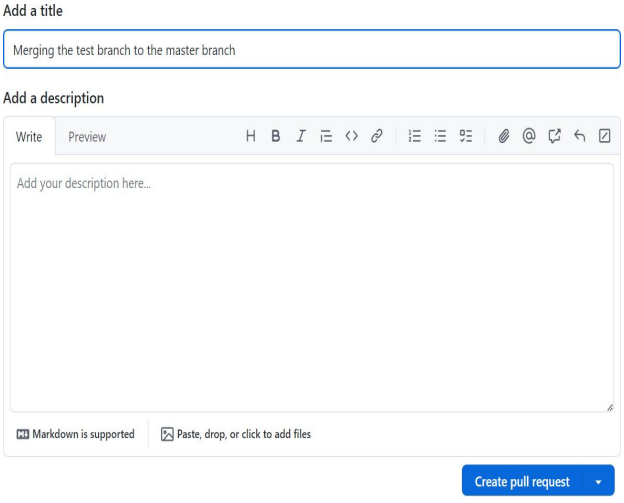
- Now, Go to github, open the repository and move to the **test** branch and make some changes in a file.

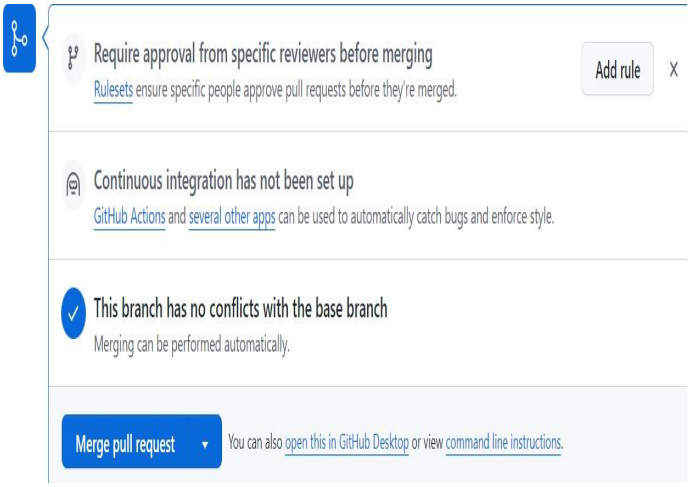


❖ Commit the changes and move to the **master** branch. Click on the **Compare & Pull request**.

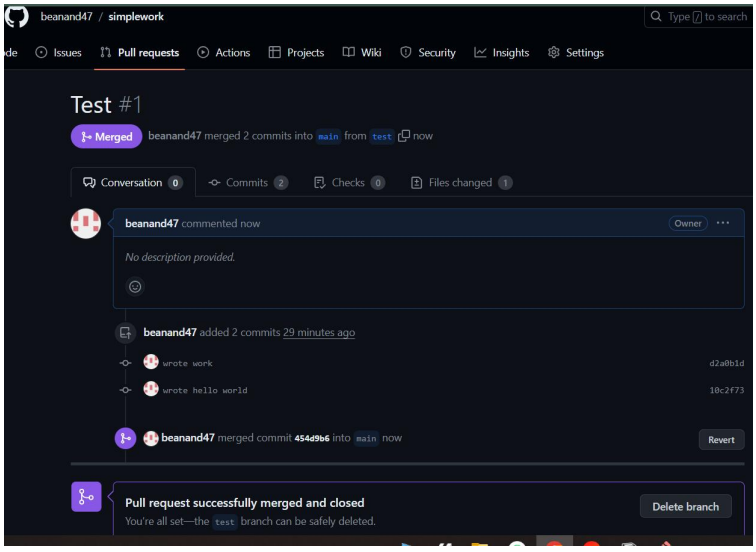


❖ **Create the pull request,** resolve the merge conflicts (if any) and then **merge pull request**.

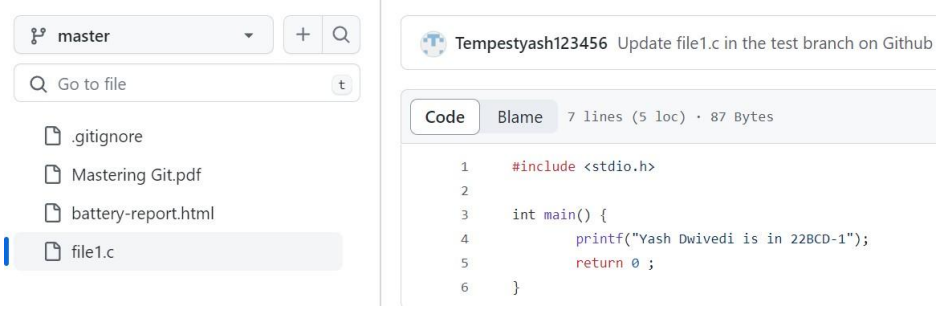




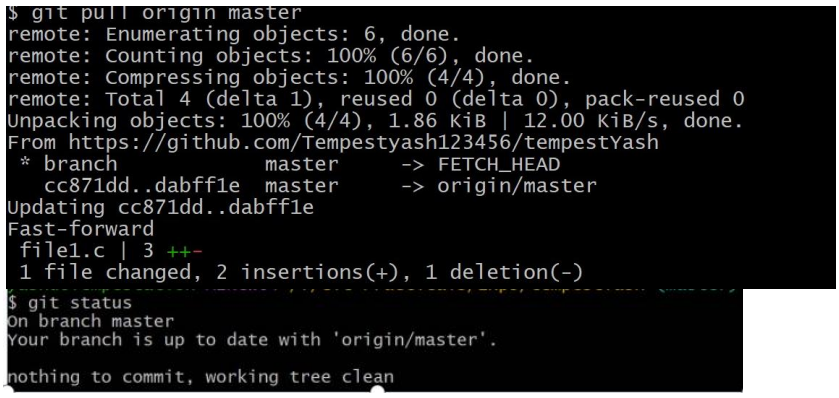
❖ After the merging, you may choose to delete your branch , i.e , **test**



❖ The master branch will now be reflecting the changes.



❖ In the Git Bash, you may get the changes in your local repository using the **git pull** command and if you want the references of the commits, use **git fetch**.



Now, after **git pull**, we will be seeing the changes in **file1.c**

4. Result/Output/Writing Summary:

In this experiment, we have created and explored the pull requests. We have created a new branch, made some changes in the files in that new branch and then merged the changes with the main branch by resolving merge conflicts by using both GitHub and Git Bash.

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.			