

Experiment -2.2

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Branch: CSE-DevOps

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Subject Name: Git and Hub

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Section/Group: 22BCD-1/A

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1. **Aim/Overview of the practical:** To merge pull requests and update local repositories.

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

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

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

```
Ayush Pandey@Ayush MINGW64 /c
$ git clone https://github.com/ayush2442/Prac_Class.git
Cloning into 'Prac_Class'...
remote: Enumerating objects: 34, done.
remote: Counting objects: 100% (34/34), done.
remote: Compressing objects: 100% (27/27), done.
remote: Total 34 (delta 9), reused 8 (delta 2), pack-reused 0Receiving
objects: 35% (12/34)
Receiving objects: 100% (34/34), 11.18 KiB | 572.00 KiB/s, done.
Resolving deltas: 100% (9/9), done.

Ayush Pandey@Ayush MINGW64 /c
$ cd Prac_Class
```

- ❖ Create or open a file in the master or main branch , eg , **file1.txt** and add some text to the file.
- ❖ Add the file to the staging area using **git add** and then commit the changes using the **git commit** command.

```
Ayush Pandey@Ayush MINGW64 /c/Prac_Class (main)
$ vi file1.txt

Ayush Pandey@Ayush MINGW64 /c/Prac_Class (main)
$ cat file1.txt
This is exp5 file 1
```

```
Ayush Pandey@Ayush MINGW64 /c/Prac_Class (main)
$ git add .

Ayush Pandey@Ayush MINGW64 /c/Prac_Class (main)
$ git commit -m "Text added to file1.txt"
[main 0785b76] Text added to file1.txt
2 files changed, 4 insertions(+)
create mode 100644 file
create mode 100644 file1.txt
```

- ❖ Create a new branch and checkout to it using the **git checkout -b** command , eg , **Exp5**.
- ❖ Open the **file1.txt** on the **vi** editor and make some changes in it.

```
Ayush Pandey@Ayush MINGW64 /c/Prac_Class (main)
$ git checkout -b Exp5
Switched to a new branch 'Exp5'

Ayush Pandey@Ayush MINGW64 /c/Prac_Class (Exp5)
$ vi file1.txt

Ayush Pandey@Ayush MINGW64 /c/Prac_Class (Exp5)
$ cat file1.txt
This is exp5 file 1
Edited and written on Git

Edited on Git in "Exp5" branch

Ayush Pandey@Ayush MINGW64 /c/Prac_Class (Exp5)
$ git commit -am "Text added in branch Exp5"
[Exp5 3df0f59] Text added in branch Exp5
1 file changed, 2 insertions(+)
```

- ❖ Merge the changes made in the **Exp5** branch with the **main** branch and resolve the conflicts manually if necessary using the **git merge** command.

```
Ayush Pandey@Ayush MINGW64 /c/Prac_Class (main)
$ git diff main Exp5
diff --git a/file1.txt b/file1.txt
index 04bde4f..5b6db90 100644
--- a/file1.txt
+++ b/file1.txt
@@ -1,2 +1,4 @@
 This is exp5 file 1
 Edited and written on Git
+
+Edited on Git in "Exp5" branch

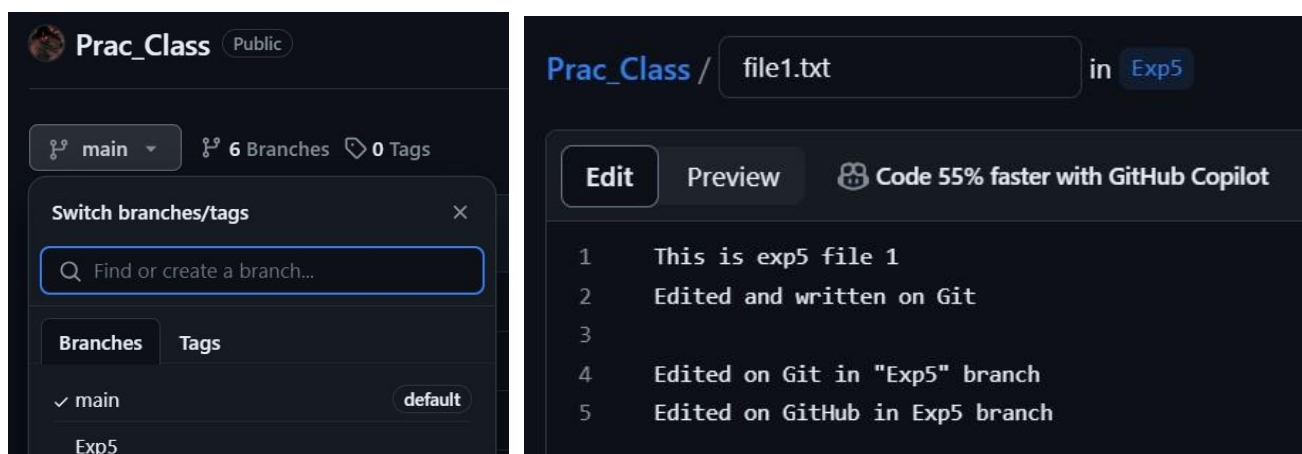
Ayush Pandey@Ayush MINGW64 /c/Prac_Class (main)
$ git diff

Ayush Pandey@Ayush MINGW64 /c/Prac_Class (main)
$ git merge Exp5
Updating 0785b76..3df0f59
Fast-forward
 file1.txt | 2 ++
 1 file changed, 2 insertions(+)

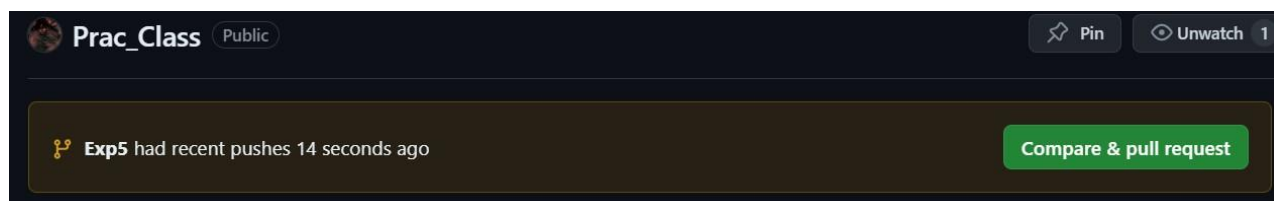
Ayush Pandey@Ayush MINGW64 /c/Prac_Class (main)
$ cat file1.txt
This is exp5 file 1
Edited and written on Git

Edited on Git in "Exp5" branch
```

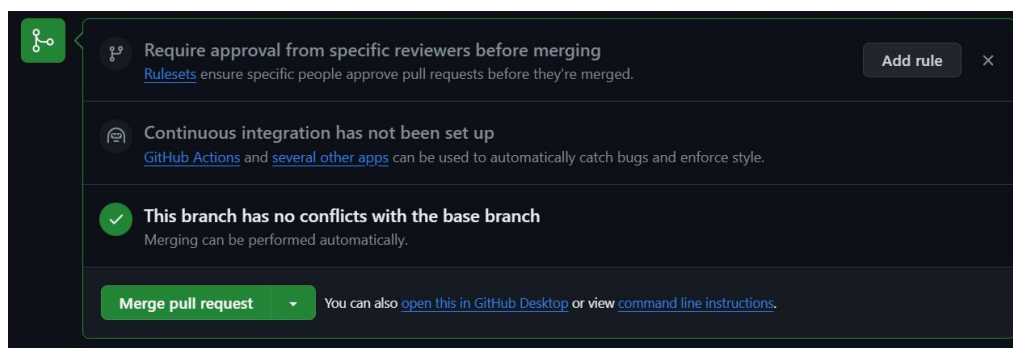
- ❖ Now, Go to github, open the repository and move to the **Exp5** branch and make some changes in a file.



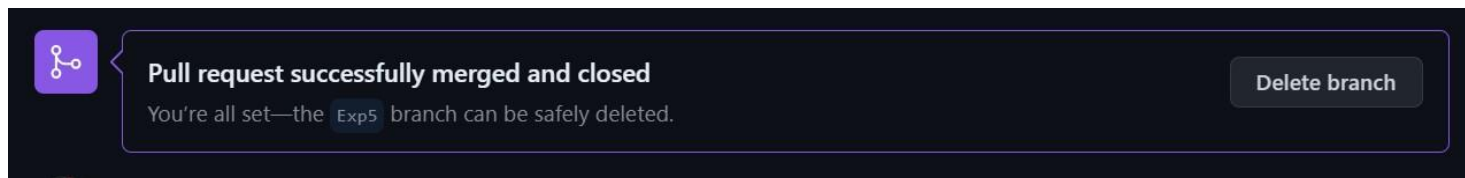
- ❖ Commit the changes and move to the **main** branch. Click on the **Compare & Pull request**.



- ❖ **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 , **Exp5**



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 and remote repositories/environment.

Learning outcomes (What I have learnt):

1. Learnt how to create a branch.
2. Learnt how to clone a remote repo to our local system.
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.			