

## Experiment -2.2

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**Branch:** AIT-CSE(DevOps)

**Semester:** 4th

**Subject Name:** Git and Hub

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**Section/Group:** 22BCD-1/A

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**Subject Code:** 22CSH-293

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.

```
yashd@Tempestation MINGW64 /f
$ git clone https://github.com/Tempestyash123456/Git-Practicals.git
Cloning into 'Git-Practicals'...
remote: Enumerating objects: 44, done.
remote: Counting objects: 100% (7/7), done.
remote: Compressing objects: 100% (7/7), done.
remote: Total 44 (delta 2), reused 2 (delta 0), pack-reused 37
Receiving objects: 100% (44/44), 4.84 MiB | 773.00 KiB/s, done.
Resolving deltas: 100% (13/13), done.

yashd@Tempestation MINGW64 /f
$ cd Git-Practicals
```

- ❖ Create or open a file in the master or main branch , eg , **file3.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 **OR** you can use the command **git commit -a -m "<commit\_msg>"** or **git commit -am "<commit\_msg>"**.

```
yashd@Tempestation MINGW64 /f/Git-Practicals (main)
$ vi file3.txt

yashd@Tempestation MINGW64 /f/Git-Practicals (main)
$ cat file3.txt
This is my third file
and my fifth experiment.

yashd@Tempestation MINGW64 /f/Git-Practicals (main)
$ git commit -a -m "Added text to file3.txt"
[main 52a2f6a] Added text to file3.txt
1 file changed, 2 insertions(+), 1 deletion(-)
```

- ❖ Create a new branch and checkout to it using the **git checkout -b** command , eg , **Exp5**.
- ❖ Open the **file3.txt** on the **vi** editor and make some changes in it.

```
yashd@Tempestation MINGW64 /f/Git-Practicals (main)
$ git checkout -b Exp5
Switched to a new branch 'Exp5'

yashd@Tempestation MINGW64 /f/Git-Practicals (Exp5)
$ vi file3.txt

yashd@Tempestation MINGW64 /f/Git-Practicals (Exp5)
$ cat file3.txt
This is my third file
and my fifth experiment.
This was done in 'Exp5' branch.

yashd@Tempestation MINGW64 /f/Git-Practicals (Exp5)
$ git commit -am "performed in Exp5"
[Exp5 8dd7275] performed in Exp5
1 file changed, 1 insertion(+)
```

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

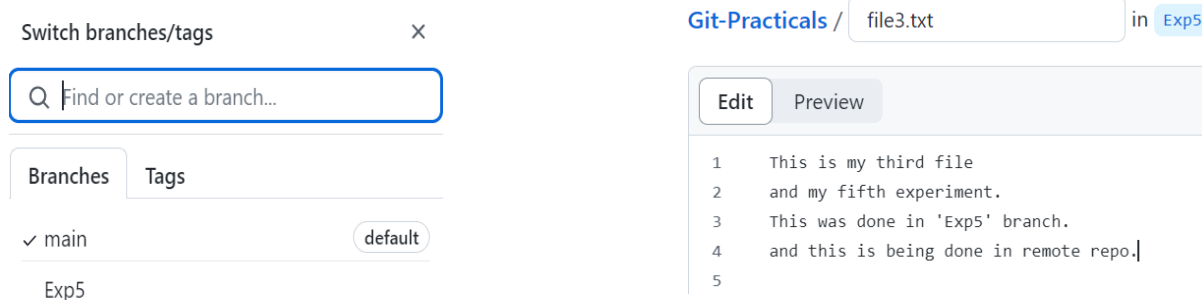
```
yashd@Tempestation MINGW64 /f/Git-Practicals (main)
$ git diff main Exp5
diff --git a/file3.txt b/file3.txt
index c26a63a..1b560e8 100644
--- a/file3.txt
+++ b/file3.txt
@@ -1,2 +1,3 @@
 This is my third file
 and my fifth experiment.
+This was done in 'Exp5' branch.

yashd@Tempestation MINGW64 /f/Git-Practicals (main)
$ git diff

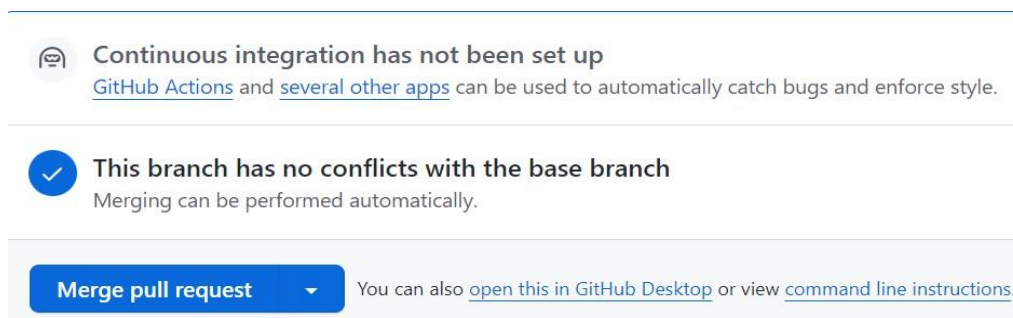
yashd@Tempestation MINGW64 /f/Git-Practicals (main)
$ git merge Exp5
Updating 52a2f6a..8dd7275
Fast-forward
 file3.txt | 1 +
 1 file changed, 1 insertion(+)

yashd@Tempestation MINGW64 /f/Git-Practicals (main)
$ cat file3.txt
This is my third file
and my fifth experiment.
This was done 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.			