Experiment -2.2

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Branch: AIT-CSE(DevOps)   **Section/Group**: 22BCD-1/A

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Subject Name: Git and Hub   **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>"**.

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```
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 "perfomed in Exp5"
[Exp5 8dd7275] perfomed 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.
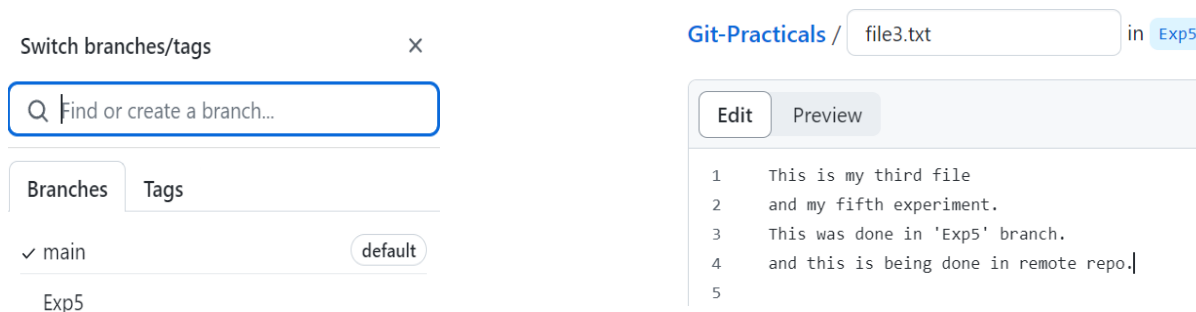
```
yashd@Tempestation MINGW64 /f/Git-Practicals (main)
$ git diff main Exp5
diff --git a/file3.txt b/file3.txt
index c26a63a..1b560e8 100644
--- a/file3.txt
+++ b/file3.txt
@@ -1,2 +1,3 @@
 This is my third file
 and my fifth experiment.
+This was done in 'Exp5' branch.

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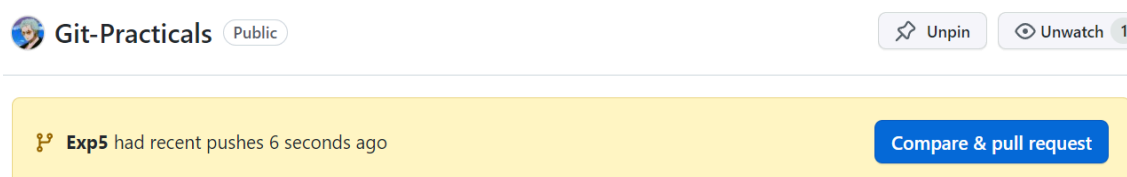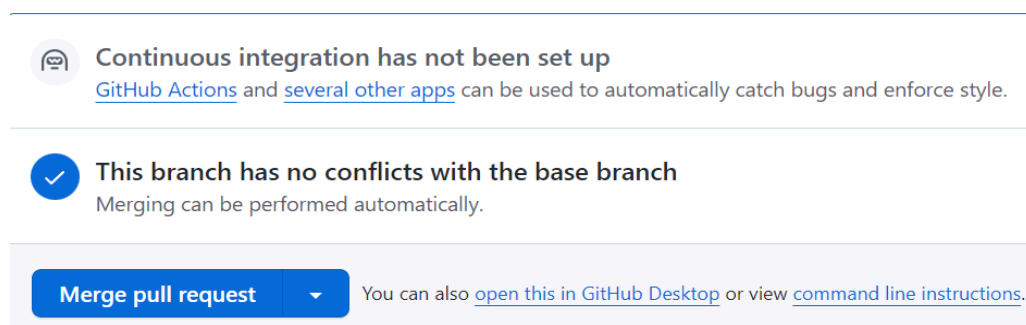
❖ Now, Go to github, open the repository and move to the **Exp5** branch and make some changes in a file.

Switch branches/tags ✕

🔍 Find or create a branch...

Branches   Tags

✓ main   default

Exp5

Git-Practicals / file3.txt   in Exp5

Edit   Preview

```
1    This is my third file
2    and my fifth experiment.
3    This was done in 'Exp5' branch.
4    and this is being done in remote repo.
5
```

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

🌐 **Git-Practicals** Public   📌 Unpin   👁 Unwatch 1

⑂ **Exp5** had recent pushes 6 seconds ago   **Compare & pull request**

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

💬 **Continuous integration has not been set up**
GitHub Actions and several other apps can be used to automatically catch bugs and enforce style.

✓ **This branch has no conflicts with the base branch**
Merging can be performed automatically.

Merge pull request ▾   You can also open this in GitHub Desktop or view command line instructions.

❖ After the merging, you may choose to delete your branch , i.e , **Exp5**

Git-Practicals / file3.txt

Tempestyash123456 changed in remote repo

Code   Blame   4 lines (4 loc) · 118 Bytes

```
1    This is my third file
2    and my fifth experiment.
3    This was done in 'Exp5' branch.
4    and this is being done in remote repo.
```

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.			