

Experiment-2.2

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Subject Name: Git and GitHub

Subject Code: 22CSH-293

1. Aim/Overview of the practical: To Merge pull request and update local repository on GitHub.

2. Task to be done: Creation local repository, create files, push and pull operations.

3. Steps for Experiment: -

1) Create a repository on local machine or clone a already created repository.

```
tarushchauhan@Tarushs-MacBook-Air ~ % git clone https://github.com/Tarushchauhan73/experiment5.git
Cloning into 'experiment5'...
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), 12.74 KiB | 200.00 KiB/s, done.
```

2) Now go to your repository by (**cd <repo_name>**) and run (**ls**) command to check for the files.

```
tarushchauhan@Tarushs-MacBook-Air ~ % cd
tarushchauhan@Tarushs-MacBook-Air ~ % cd experiment5
tarushchauhan@Tarushs-MacBook-Air experiment5 % ls
LICENSE      README.md
```

3) Now create a new file in your repository i.e. (**vi exp05.txt**) and add some content inside the file, and also check for the data inside the file i.e. (**cat <file_name>**)

```
tarushchauhan@Tarushs-MacBook-Air experiment5 % vi exp5.txt
tarushchauhan@Tarushs-MacBook-Air experiment5 % cat exp5.txt
this is exp5
```

- 4) Now after adding some content inside the file, add & commit the file. i.e. (**git add .**) & (**git commit -m** “your message”).

```
tarushchauhan@Tarushs-MacBook-Air experiment5 % git add .  
tarushchauhan@Tarushs-MacBook-Air experiment5 % git commit -m "for experiment5"  
[main 51c8aac] for experiment5  
1 file changed, 2 insertions(+)  
create mode 100644 exp5.txt
```

- 5) Now before creating a new feature_branch from the main branch i.e. (**git checkout -b** <branch_name>), check for already created branch i.e. (**git branch**) i.e. (**experiment5**).

```
tarushchauhan@Tarushs-MacBook-Air experiment5 % git branch  
* main  
tarushchauhan@Tarushs-MacBook-Air experiment5 % git checkout -b experiment5  
Switched to a new branch 'experiment5'
```

- 6) After creating a feature_branch open the same file which was created on themain_branch (**vi Exp05.txt**) and make some changes in the feature_branch.

```
tarushchauhan@Tarushs-MacBook-Air experiment5 % vi exp5.txt  
  
tarushchauhan@Tarushs-MacBook-Air experiment5 % cat exp5.txt  
  
this is exp5  
this file is for experiment5
```

7) Now after making change in the same file, add & commit the file in the feature_branch.
i.e. (**git add .**) & (**git commit -m "your message"**).

```
tarushchauhan@Tarushs-MacBook-Air experiment5 % git add .
tarushchauhan@Tarushs-MacBook-Air experiment5 % git commit -m "committing from experiment branch"
[experiment5 5f1a140] committing from experiment branch
1 file changed, 1 insertion(+)
```

8) Now we can see the changes made in the feature_branch i.e. (**git diff main <feature_branch>**).

```
tarushchauhan@Tarushs-MacBook-Air experiment5 % git diff main experiment5
diff --git a/exp5.txt b/exp5.txt
index 06c66cb..b77bce7 100644
--- a/exp5.txt
+++ b/exp5.txt
@@ -1,2 +1,3 @@
 this is exp5
+this file is for experiment5
```

9) Now merge the feature_branch into the main branch i.e. (**git merge <feature_branch>**).

```
tarushchauhan@Tarushs-MacBook-Air experiment5 % git merge experiment5
Already up to date.
```

10) Now we can see the changes done in the feature_branch after merging it to main branch
i.e. (**cat <file_name>**).

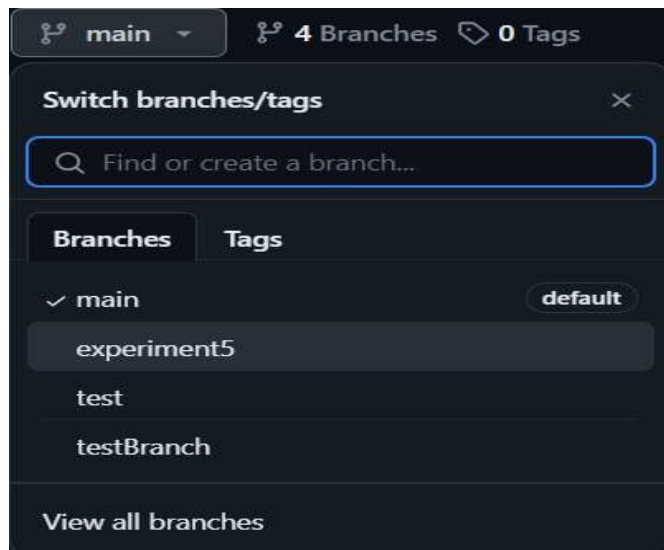
```
tarushchauhan@Tarushs-MacBook-Air experiment5 % cat exp5.txt
this is exp5
this file is for experiment5

tarushchauhan@Tarushs-MacBook-Air experiment5 % git push origin main
Enumerating objects: 4, done.
```

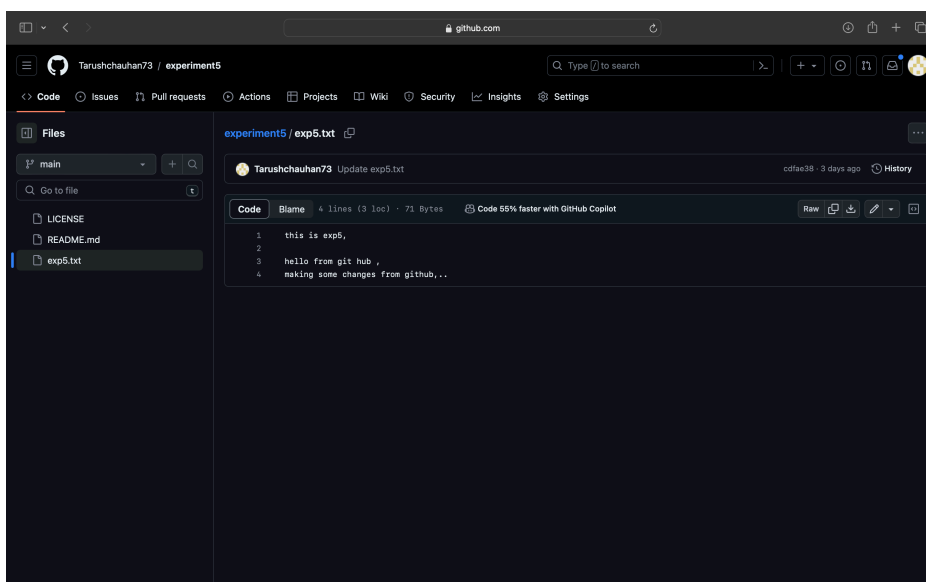
11) Now push all the changes on the GitHub in the main branch i.e. (**git push origin main**).

```
tarushchauhan@Tarushs-MacBook-Air experiment5 % git push origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 325 bytes | 325.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Tarushchauhan73/experiment5.git
   baaeb49..51c8aac  main -> main
tarushchauhan@Tarushs-MacBook-Air experiment5 %
```

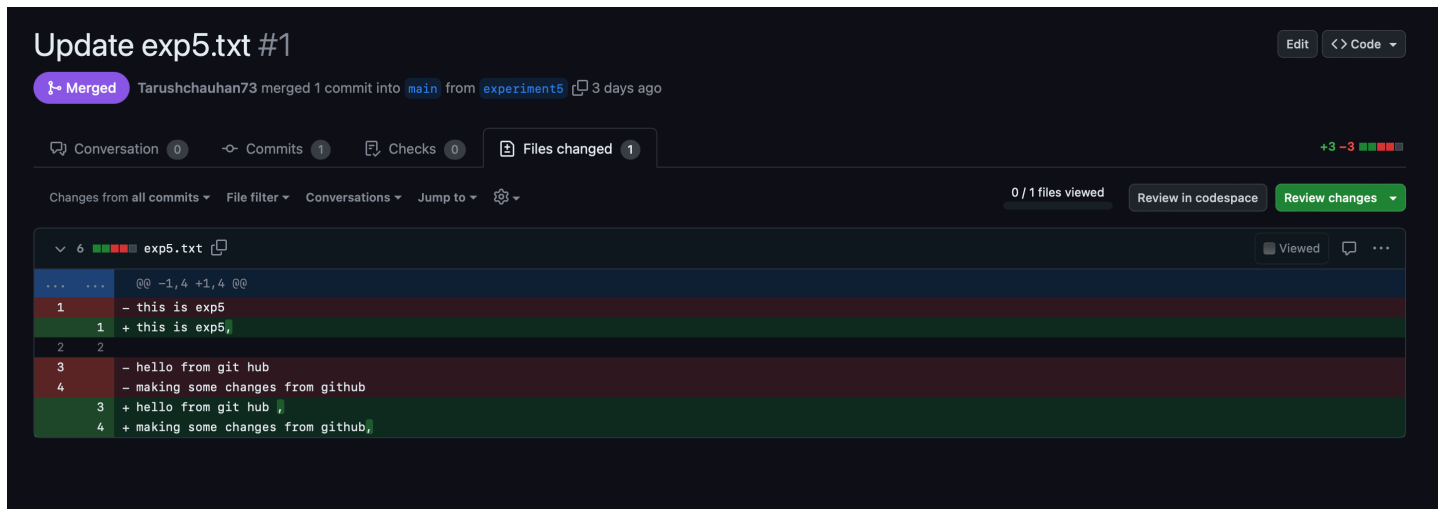
12) Now go to the feature_branch and open the same file and make some changes.



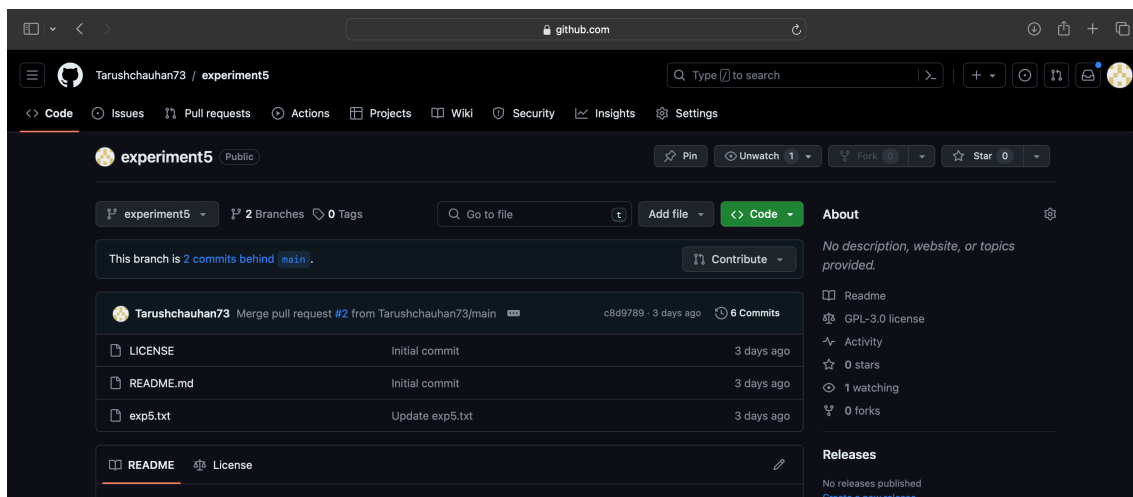
13) Now open the same file and make some changes and commit the changes.



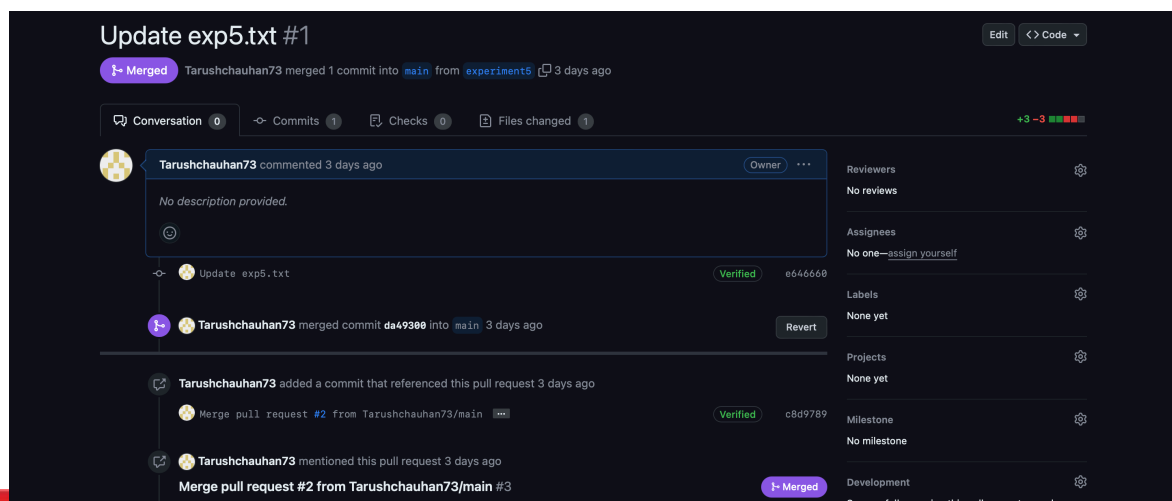
14) Now we can see the changes made on the GitHub.



12) Now go to your GitHub account and open a pull request.

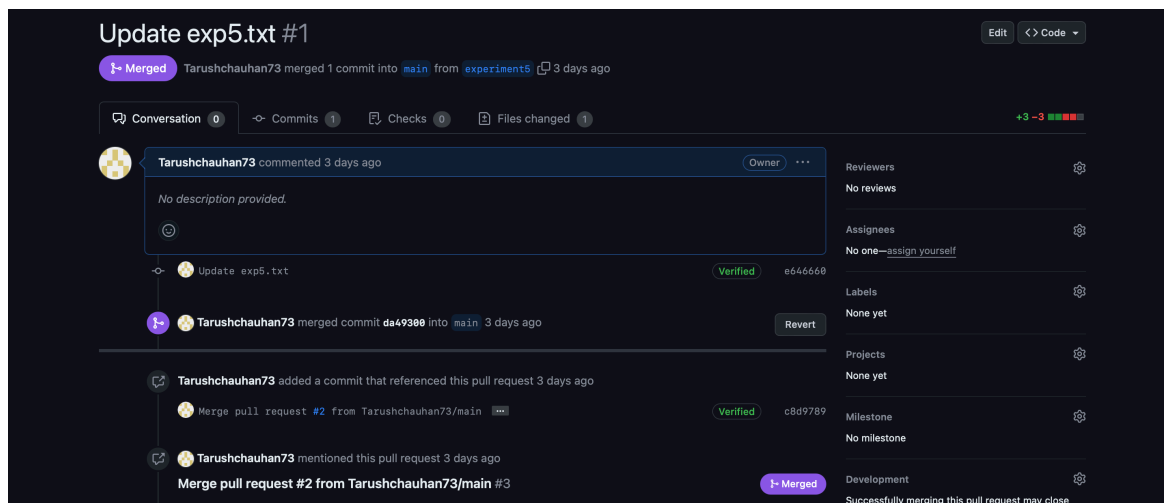


13) Now merge pull request before merging it will check for the conflicts.



13)

14) Now the branch and the files are successfully merged.



15) Now on the local repository we can also see the changes made on the Git and Github.

```
$ cat Exp05.txt
hello, this file is for experiment 05,
now i'm writing from git. i.e. local repository.

hello again from experiement branch from main branch,
i'm doing some changes inside this file.

hello from github,
making some changes from github.
```

We have successfully created a file and merged in the Main Branch.

Learning outcomes (What I have learnt):

1. Learnt about GitHub.
2. Learnt about Git.
3. Learnt about various git commands that can be applied on Git Bash.
4. Learnt about push and pull merge request.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			