Experiment-2.2

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Branch: CSE(DEVOPS) **Section/Group:** 22BCD-1/B

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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.

```
adarsh@ASUS MINGW64 ~ (master)
$ git clone https://github.com/adarshkrsingh07/22BCD-1.git
fatal: destination path '22BCD-1' already exists and is not an empty directory.
```

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

```
adarsh@ASUS MINGW64 ~ (master)
$ cd 22BCD-1

adarsh@ASUS MINGW64 ~/22BCD-1 (main)
$ ls
22BCD-1/  Add.c  Exp05.txt  exp3.txt  F2exp3.txt  File1.txt  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>)

```
adarsh@ASUS MINGW64 ~/22BCD-1 (main)
$ vi Exp05.txt

adarsh@ASUS MINGW64 ~/22BCD-1 (main)
$ cat Exp05.txt
hello, this file is for experiment 05,
now i'm writing from git. i.e. local repository.
```

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

```
adarsh@ASUS MINGW64 ~/22BCD-1 (main)
$ git add .
warning: in the working copy of 'Exp05.txt', LF will be replaced by CRLF
```

```
adarsh@ASUS MINGW64 ~/22BCD-1 (main)
$ git commit -m "for experiment 05"
[main cba70f3] for experiment 05
 1 file changed, 2 insertions(+), 2 deletions(-)
```

05) 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**).

```
adarsh@ASUS MINGW64 ~/22BCD-1 (main)
$ git branch
* main
  testBranch

adarsh@ASUS MINGW64 ~/22BCD-1 (main)
$ git checkout -b experiment5
Switched to a new branch 'experiment5'
```

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

```
adarsh@ASUS MINGW64 ~/22BCD-1 (experiment5)
$ vi Exp05.txt

adarsh@ASUS MINGW64 ~/22BCD-1 (experiment5)
$ 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.
```

07) 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").

```
adarsh@ASUS MINGW64 ~/22BCD-1 (experiment5)
$ git add .
warning: in the working copy of 'Exp05.txt', LF will be replaced by CRLF

adarsh@ASUS MINGW64 ~/22BCD-1 (experiment5)
$ git commit -m "commiting from experiment branch"
[experiment5 7fdd0ca] commiting from experiment branch
 1 file changed, 3 insertions(+)
```

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

```
adarsh@ASUS MINGW64 ~/22BCD-1 (main)
$ git diff main experiment5
diff --git a/Exp05.txt b/Exp05.txt
index 539725a..ca4bb0f 100644
--- a/Exp05.txt
+++ b/Exp05.txt
@@ -1,2 +1,5 @@
 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.
```

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

```
adarsh@ASUS MINGW64 ~/22BCD-1 (main)
$ git merge experiment5
Updating cba70f3..7fdd0ca
Fast-forward
 Exp05.txt | 3 +++
 1 file changed, 3 insertions(+)
```

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

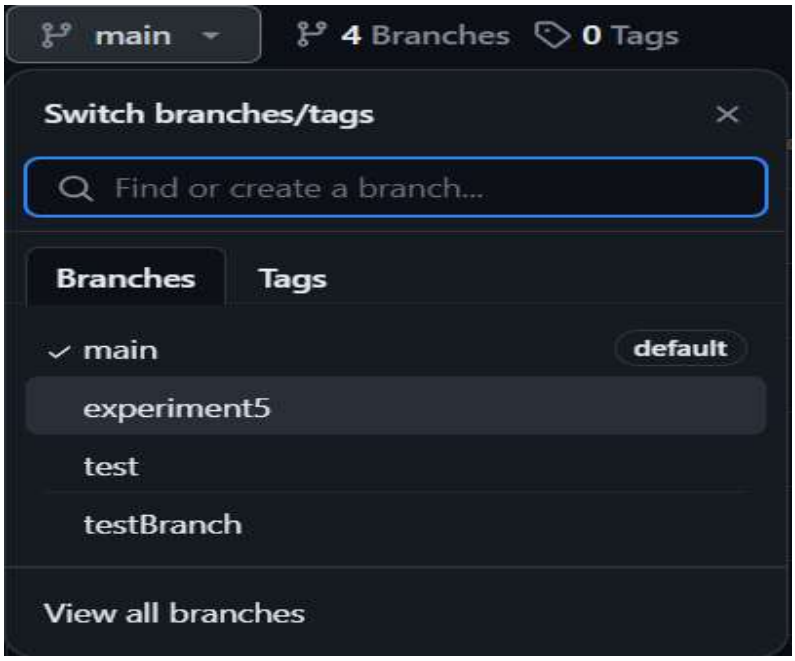
```
adarsh@ASUS MINGW64 ~/22BCD-1 (main)
$ cat Exp05.txt
hello, this file is for experiment 05,
now i'm writing from git. i.e. local repository.

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

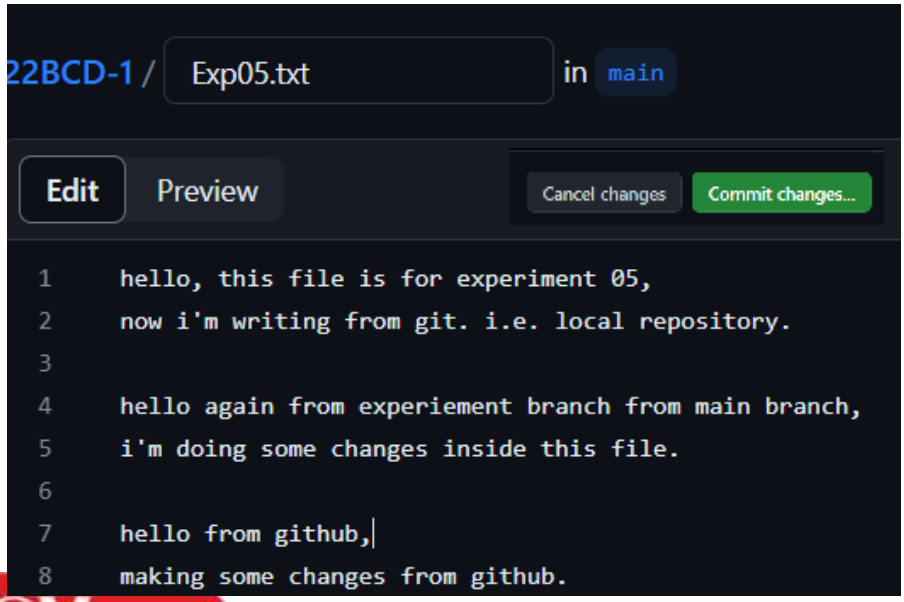
11) Now push all the changes on the GitHub in the main branch i.e. (**git push origin main**).

```
adarsh@ASUS MINGW64 ~/22BCD-1 (main)
$ git push origin main
Enumerating objects: 10, done.
Counting objects: 100% (10/10), done.
Delta compression using up to 8 threads
Compressing objects: 100% (7/7), done.
Writing objects: 100% (7/7), 774 bytes | 387.00 KiB/s, done.
Total 7 (delta 4), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (4/4), completed with 1 local object.
To https://github.com/adarshkrsingh07/22BCD-1.git
   ee5465d..312d56a  main -> main
```

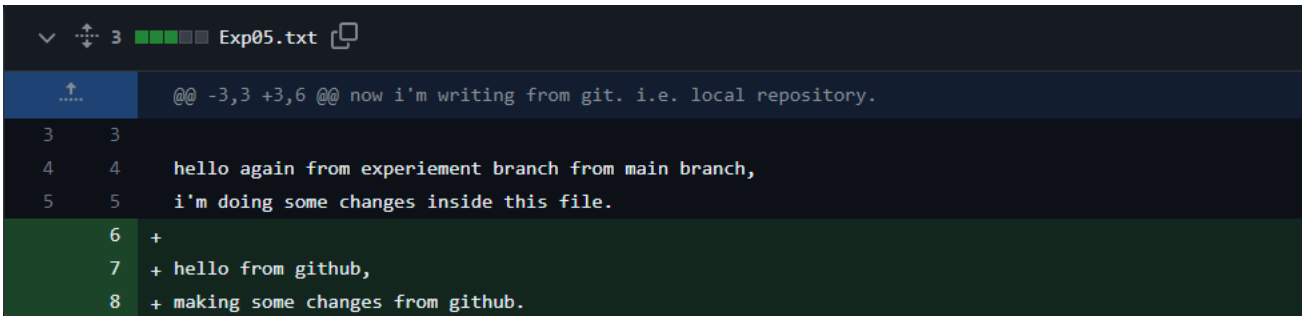
12) Now go to the feature_branch and open the same file and make some changes.



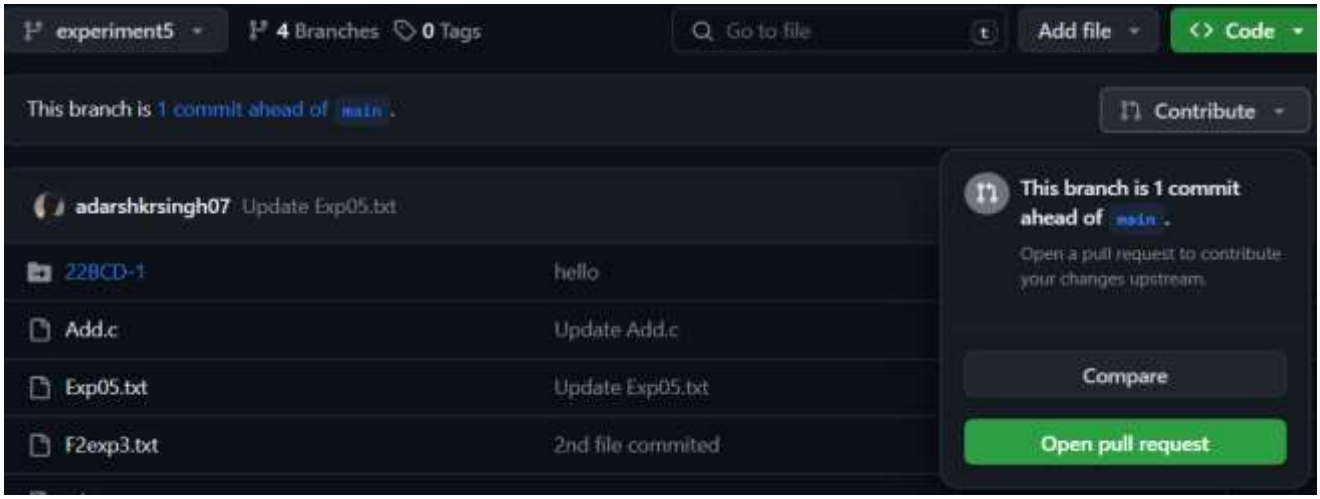
13) Now open the same file and make some changes and commit the changes.



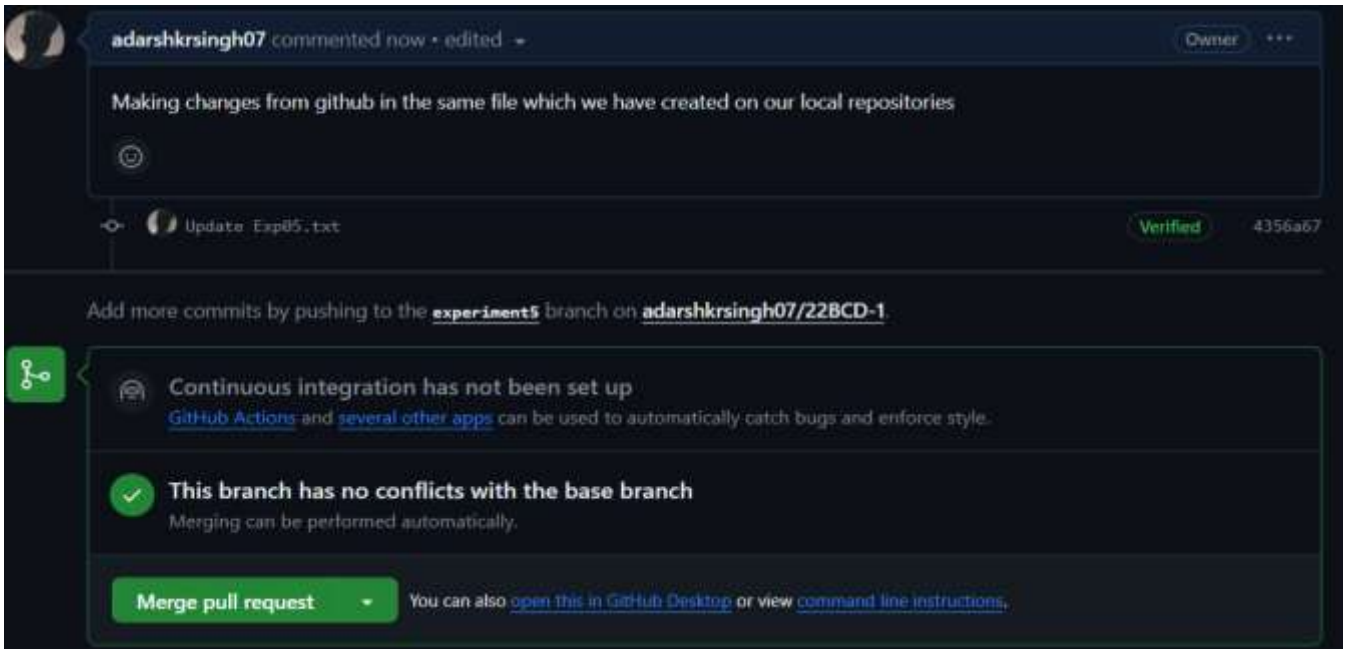
14) Now we can see the changes made on the GitHub.



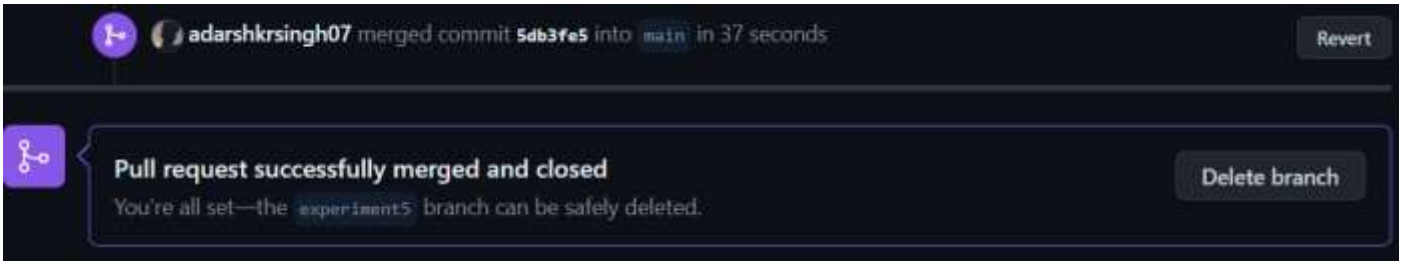
12) Now go to your GitHub account and open a pull request.



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



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.

```
adarsh@ASUS MINGW64 ~/22BCD-1 (main)
$ 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.			