

## Experiment -1.3

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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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1. Aim/Overview of the practical: To create and explore pull requests.

2. Software Used: Git Bash, GitHub.

3. Steps for experiment/practical:

- Create or clone a repository on your local machine and open GIT BASH.
- Move to the directory using the **cd** command.
- Create a file in the master or main branch, eg, **filebranch1.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.
- Create a new branch and checkout to it using the **git checkout -b** command, here git checkout -branch1.
- Open the **filebranch1.txt** on the **vi** editor and make some changes to it.
- Repeat step 4.
- Merge the branch in the **master** branch using the **git merge <branch\_name>** command and resolve the merge conflict if necessary.
- Now, push your changes in the **master** and **test** branch to the remote repository.
- Now, Go to Git Hub, open the repository move to the **test** branch and make some changes in a file.
- Commit the changes and move to the **master** branch. Click on the **Compare & Pull request**.

- Create the pull request, resolve the merge conflicts (if any) and then merge the pull request.
- After the merging, you may choose to delete your branch, i.e, branchfile
- The master branch will now be reflecting the changes.
- In the Git Bash, you may get the changes in your local repository using the **git pull** command and if you want the references of the commits, use **git fetch**.
- Now, after the **git pull**, we will be seeing the changes in **filrbranch1.txt**

#### 4. Outputs:

```
MINGW64~/Users/chaya/exp-3/new-github
chaya@Chayan MINGW64 ~
$ git init
Initialized empty Git repository in C:/Users/chaya/.git/

chaya@Chayan MINGW64 ~ (master)
$ mkdir exp-3

chaya@Chayan MINGW64 ~ (master)
$ cd exp-3

chaya@Chayan MINGW64 ~/exp-3 (master)
$ git pull https://github.com/Chayan-12/new-github.git
remote: Enumerating objects: 12, done.
remote: Counting objects: 100% (12/12), done.
remote: Compressing objects: 100% (11/11), done.
remote: Total 12 (delta 1), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (12/12), 16.58 KiB | 606.00 KiB/s, done.
From https://github.com/Chayan-12/new-github
* branch HEAD -> FETCH_HEAD

chaya@Chayan MINGW64 ~/exp-3 (master)
$ git checkout origin
error: pathspec 'origin' did not match any file(s) known to git

chaya@Chayan MINGW64 ~/exp-3 (master)
$ git status
warning: could not open directory 'Application Data/': Permission denied
warning: could not open directory 'Cookies/': Permission denied
warning: could not open directory 'Documents/My Music/': Permission denied
warning: could not open directory 'Documents/My Pictures/': Permission denied
warning: could not open directory 'Documents/My Videos/': Permission denied
warning: could not open directory 'Local Settings/': Permission denied
warning: could not open directory 'My Documents/': Permission denied
warning: could not open directory 'NetHood/': Permission denied
warning: could not open directory 'PrintHood/': Permission denied
warning: could not open directory 'Recent/': Permission denied
warning: could not open directory 'SendTo/': Permission denied
warning: could not open directory 'Start Menu/': Permission denied
warning: could not open directory 'Templates/': Permission denied
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    ../.bash_history
    ../.git-for-windows-updater
    ../.gitconfig
    ../.lessht
    ../.viminfo
    ../AppData/
```

*Switching to the current directory*

```
MINGW64/c/Users/chaya/exp-3/new-github
fatal: The current branch branch1 has no upstream branch.
to push the current branch and set the remote as upstream, use

    git push --set-upstream origin branch1

To have this happen automatically for branches without a tracking
upstream, see 'push.autoSetupRemote' in 'git help config'.

chaya@Chayan MINGW64 ~/exp-3/new-github (branch1)
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

chaya@Chayan MINGW64 ~/exp-3/new-github (main)
$ git push
Everything up-to-date

chaya@Chayan MINGW64 ~/exp-3/new-github (main)
$ git checkout branch1
Switched to branch 'branch1'

chaya@Chayan MINGW64 ~/exp-3/new-github (branch1)
$ git push branch1
fatal: 'branch1' does not appear to be a git repository
fatal: Could not read from remote repository.

Please make sure you have the correct access rights
and the repository exists.

chaya@Chayan MINGW64 ~/exp-3/new-github (branch1)
$ git push --upstream
chaya@Chayan MINGW64 ~/exp-3/new-github (branch1)
$ git push --set-upstream origin branch1
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 309 bytes | 309.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'branch1' on GitHub by visiting:
remote:   https://github.com/Chayan-12/new-github/pull/new/branch1
remote:
to https://github.com/Chayan-12/new-github.git
 * [new branch]      branch1 -> branch1
branch 'branch1' set up to track 'origin/branch1'.

chaya@Chayan MINGW64 ~/exp-3/new-github (branch1)
$
```

## *Creating Branch*

```
MINGW64/c/Users/chaya/exp-3/new-github
chaya@Chayan MINGW64 ~/exp-3 (master)
$ cd..
bash: cd.: command not found
chaya@Chayan MINGW64 ~/exp-3 (master)
$ cd ..
chaya@Chayan MINGW64 ~ (master)
$ git remote add https://github.com/Chayan-12/new-github.git
usage: git remote add [<options>] <name> <url>

    -f, --[no-]fetch          fetch the remote branches
    --[no-]tags              import all tags and associated objects when fe
    --[no-]tags              or do not fetch any tag at all (--no-tags)
    -t, --[no-]track <branch> branch(es) to track
    -m, --[no-]master <branch> master branch
    --[no-]mirror[=(push|fetch)] set up remote as a mirror to push to or fetch
    from

chaya@Chayan MINGW64 ~ (master)
$ git pull origin master
fatal: 'origin' does not appear to be a git repository
fatal: Could not read from remote repository.

Please make sure you have the correct access rights
and the repository exists.
chaya@Chayan MINGW64 ~ (master)
$ cd exp-3
chaya@Chayan MINGW64 ~/exp-3 (master)
$ git pull origin new-github
fatal: 'origin' does not appear to be a git repository
fatal: Could not read from remote repository.

Please make sure you have the correct access rights
and the repository exists.
chaya@Chayan MINGW64 ~/exp-3 (master)
$ git clone https://github.com/Chayan-12/new-github.git
Cloning into 'new-github'...
remote: Enumerating objects: 12, done.
remote: Counting objects: 100% (12/12), done.
remote: Compressing objects: 100% (11/11), done.
remote: Total 12 (delta 1), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (12/12), 16.60 KiB | 326.00 KiB/s, done.
Resolving deltas: 100% (1/1), done.
```

```
MINGW64/c/Users/chaya/exp-3/new-github
git push --set-upstream origin branch1

To have this happen automatically for branches without a tracking
upstream, see 'push.autoSetupRemote' in 'git help config'.

chaya@Chayan MINGW64 ~/exp-3/new-github (branch1)
$ git add filebranch1.txt

chaya@Chayan MINGW64 ~/exp-3/new-github (branch1)
$ git commit -m "Branch File committed"
[branch1 ba07c25] Branch File committed
1 file changed, 1 insertion(+)
create mode 100644 filebranch1.txt

chaya@Chayan MINGW64 ~/exp-3/new-github (branch1)
$ git push
fatal: The current branch branch1 has no upstream branch.
to push the current branch and set the remote as upstream, use

    git push --set-upstream origin branch1

To have this happen automatically for branches without a tracking
upstream, see 'push.autoSetupRemote' in 'git help config'.

chaya@Chayan MINGW64 ~/exp-3/new-github (branch1)
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

chaya@Chayan MINGW64 ~/exp-3/new-github (main)
$ git push
Everything up-to-date

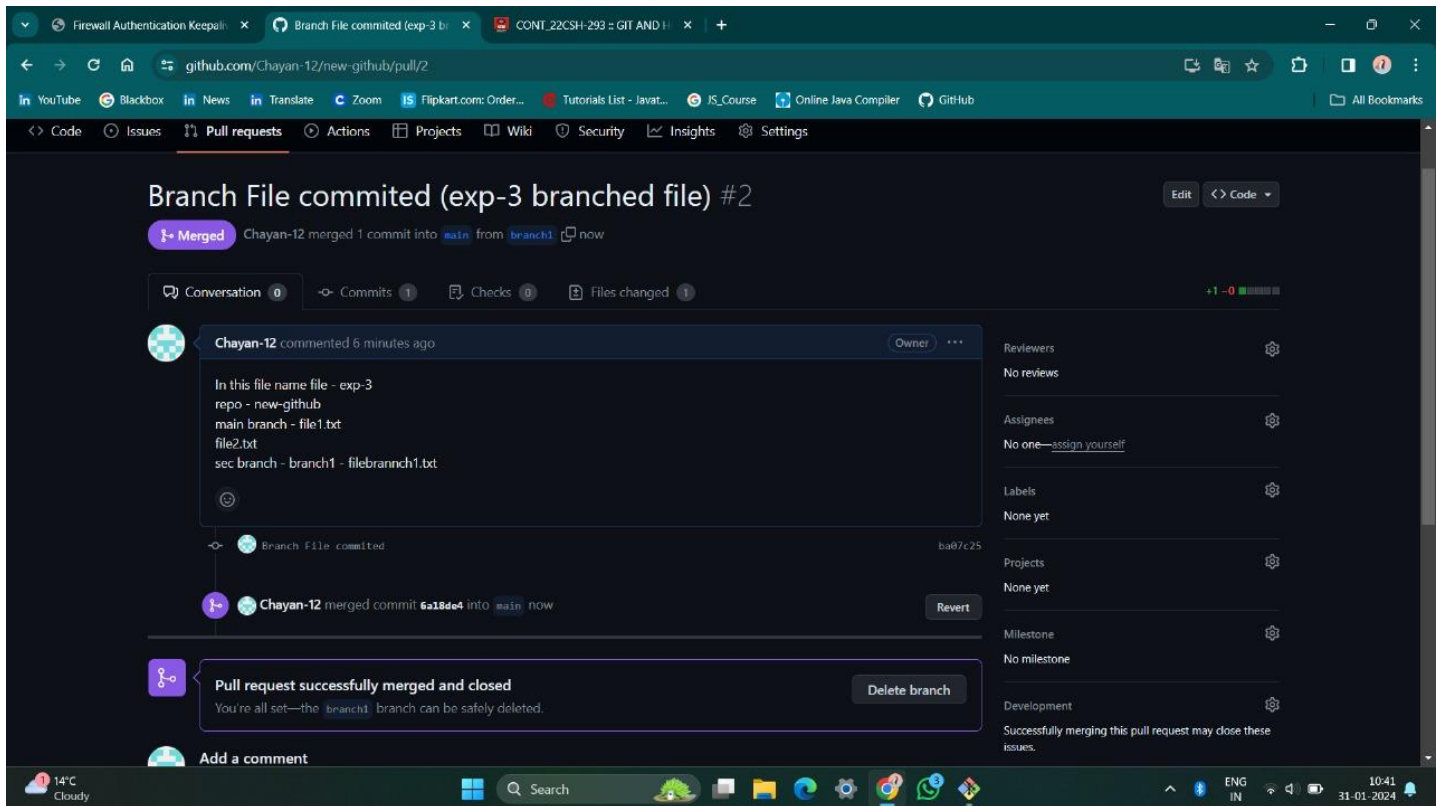
chaya@Chayan MINGW64 ~/exp-3/new-github (main)
$ git checkout branch1
Switched to branch 'branch1'

chaya@Chayan MINGW64 ~/exp-3/new-github (branch1)
$ git push branch1
fatal: 'branch1' does not appear to be a git repository
fatal: Could not read from remote repository.

Please make sure you have the correct access rights
and the repository exists.

chaya@Chayan MINGW64 ~/exp-3/new-github (branch1)
$ git push --upstreamAC
chaya@Chayan MINGW64 ~/exp-3/new-github (branch1)
```

*Branch pushed*



### *Merging the request on the Github*

## 5. Result:

In this experiment, we have created and explored the pull requests. We created a new branch, made some changes in the files in that new branch and then merged the changes with the main branch by resolving merge conflicts by using both GitHub and Git Bash.

## Learning outcomes (What I have learnt):

1. Learnt how to create a branch.
2. Learnt how to push the changes to the remote repository.
3. Learnt how to pull the changes from the remote repository.

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.			