

Experiment -1.3

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Branch: AIT-CSE(DevOps)

Semester: 4th

Subject Name: Git and Hub

UID: 22BDO10001

Section/Group: 22BCD-1/A

Date of Performance: 31/01/2024

Subject Code: 22CSH-293

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, **es1.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 -br24..
- Open the **es1.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, **br24**
- 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 **es1.txt**

4. Outputs:

```
MINGW64/c/Users/AARYAN/Git-and-GitHub
AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ ls
LICENSE  README.md  am2345  'binary search'  es1.txt  ew1.txt  git-books/  myfile.c

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git push origin main
info: please complete authentication in your browser...
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 4 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 605 bytes | 302.00 KiB/s, done.
Total 4 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/Aaryan-2104/Git-and-GitHub.git
27df001..c7e2cf2  main -> main

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git fetch
From https://github.com/Aaryan-2104/Git-and-GitHub
* [new branch]      b1       -> origin/b1
* [new branch]      b2       -> origin/b2
* [new branch]      br24.c   -> origin/br24.c

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ ls
LICENSE  README.md  am2345  'binary search'  es1.txt  ew1.txt  git-books/  myfile.c

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git push origin master
error: src refspec master does not match any
error: failed to push some refs to 'https://github.com/Aaryan-2104/Git-and-GitHub.git'

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git push origin main
Everything up-to-date

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git status
On branch main
```

Created new file es1.txt

```
MINGW64/c/Users/AARYAN/Git-and-GitHub
ew1.txt

nothing added to commit but untracked files present (use "git add" to track)

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git config list
error: key does not contain a section: list

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git add es1.txt

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git add ew1.txt

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ ls
LICENSE  README.md  am2345 'binary search'  es1.txt  ew1.txt  git-books/  myfile.c

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git commit -m "Try"
[main 37d2c32] Try
2 files changed, 2 insertions(+)
create mode 100644 es1.txt
create mode 100644 ew1.txt

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ ls
LICENSE  README.md  am2345 'binary search'  es1.txt  ew1.txt  git-books/  myfile.c

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git push origin main
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (4/4), 325 bytes | 325.00 KiB/s, done.
Total 4 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/Aaryan-2104/Git-and-GitHub.git
c7e2cf2..37d2c32  main -> main
```

In Staging Area

```
MINGW64/c/Users/AARYAN/Git-and-GitHub
error: src refspec master does not match any
error: failed to push some refs to 'https://github.com/Aaryan-2104/Git-and-GitHub.git'

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git push origin main
Everything up-to-date

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    es1.txt
    ewl.txt

nothing added to commit but untracked files present (use "git add" to track)

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git commit -m "Hello"
On branch main
Your branch is up to date with 'origin/main'.

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    es1.txt
    ewl.txt

nothing added to commit but untracked files present (use "git add" to track)

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git config list
error: key does not contain a section: list

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git add es1.txt

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git add ewl.txt
```

Ready to committ

```
MINGW64/c/Users/AARYAN/Git-and-GitHub
2 files changed, 2 insertions(+)
create mode 100644 es1.txt
create mode 100644 ew1.txt

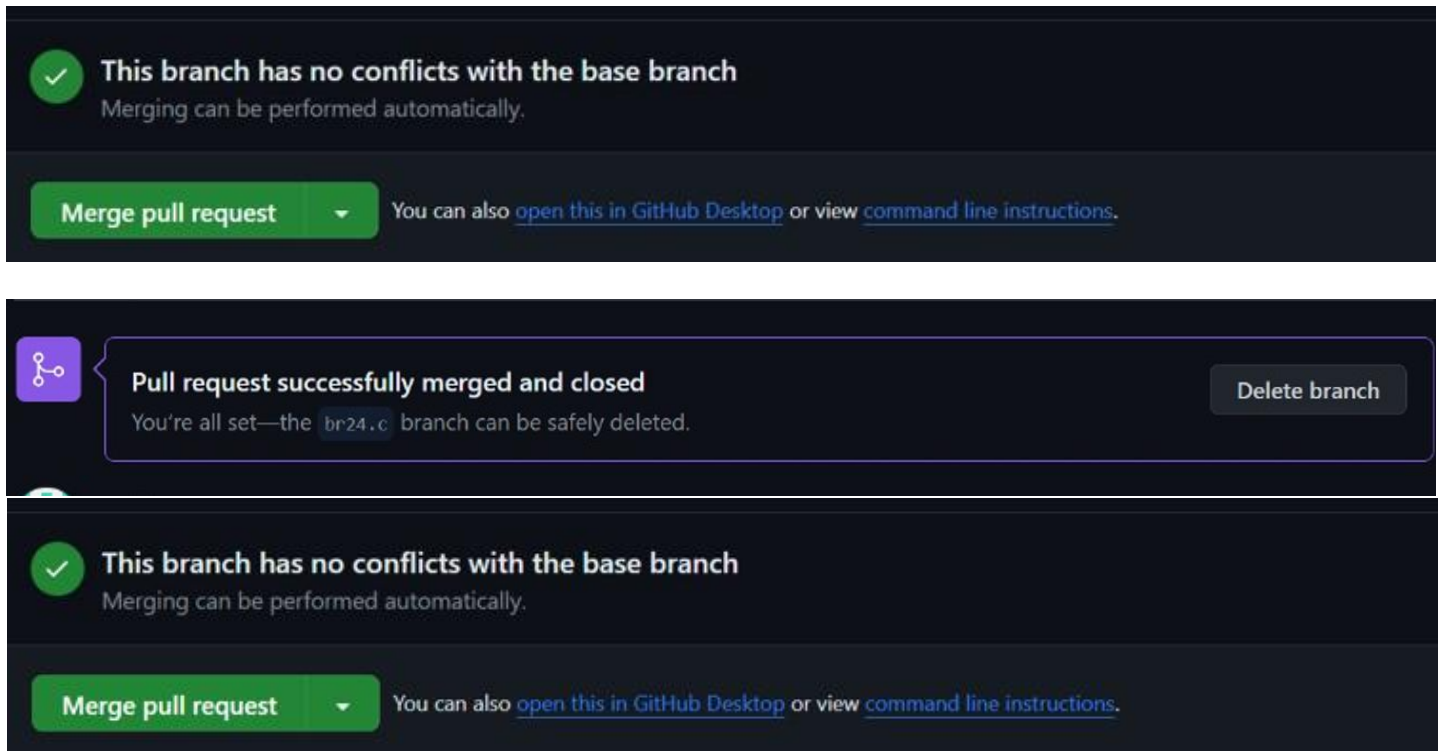
AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ ls
LICENSE  README.md  am2345  'binary search'  es1.txt  ew1.txt  git-books/  myfile.c

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git push origin main
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (4/4), 325 bytes | 325.00 KiB/s, done.
Total 4 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/Aaryan-2104/Git-and-GitHub.git
c7e2cf2..37d2c32  main -> main

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ git pull origin main
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 4 (delta 1), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (4/4), 1.78 KiB | 121.00 KiB/s, done.
From https://github.com/Aaryan-2104/Git-and-GitHub
* branch      main      -> FETCH_HEAD
   37d2c32..b3f0b61  main      -> origin/main
Updating 37d2c32..b3f0b61
Fast-forward
 es1.txt | 2 +-
 1 file changed, 1 insertion(+), 1 deletion(-)

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ vi es1.txt

AARYAN@Aaryan-PC MINGW64 ~/Git-and-GitHub (main)
$ |
```

Merging the request

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.			