

Experiment -2.2

Student Name: Sushant jha
Branch: CSE (Devops)
Semester: 4th
Subject Name: Git and Git Hub

UID: 22BDO10052
Section/Group: 22BCD-1\A
Date of Performance: 21/02/24
Subject Code: 22CSH-293

1. Aim/Overview of the practical:

To create remote repositories and merge their contents in a single local repository followed by updating contents and pushing changes back to remote repository.

2. Software Used:

Git Bash, Git-Hub.

3. Steps for experiment/practical:

1. Create a new local repository and initialize it using git init.

```
ASUS TUF@sushant MINGW64 ~/Desktop/new5 (main)
$ git init
Initialized empty Git repository in C:/Users/ASUS TUF/Desktop/new5/.git/
```

2. Add a file file1.java and edit it using the vi command.

```
ASUS TUF@sushant MINGW64 ~/Desktop/new5 (main)
$ vi file1.java
```

3. Save the changes made to fl.java using git add and git commit.

```
ASUS TUF@sushant MINGW64 ~/Desktop/new5 (main)
$ git add .

ASUS TUF@sushant MINGW64 ~/Desktop/new5 (main)
$ git commit -m "new commit"
[main a4bad9f] new commit
1 file changed, 7 insertions(+)
```

4. Create a remote repository on GitHub without including README.md.

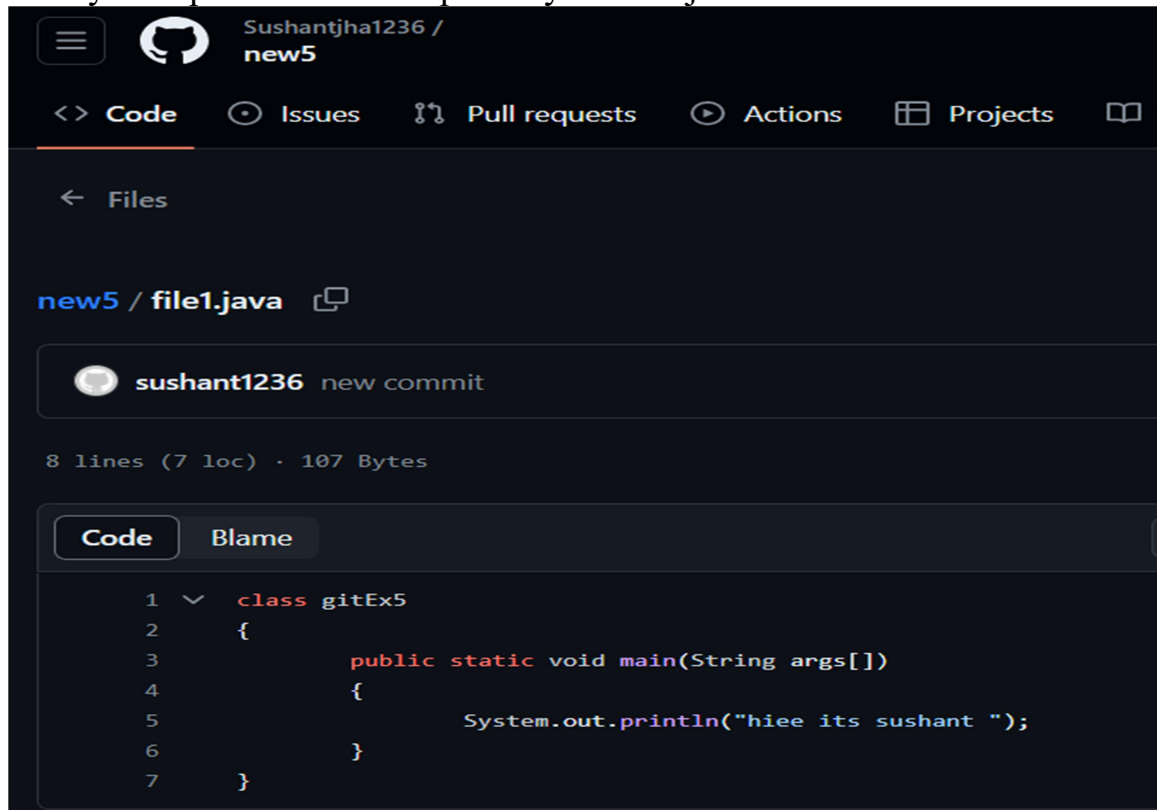
5. Configure the GitHub repository as the new remote repository using git remote add origin <https link to the repository>.

```
ASUS TUF@sushant MINGW64 ~/Desktop/new5 (main)
$ git remote add origin https://github.com/Sushantjha1236/new5.git
```

6. Push the changes (the fl.java file) to the remote repository using `git push -u origin main`.

```
ASUS TUF@sushant MINGW64 ~/Desktop/new5 (main)
$ git push origin main
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 12 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 374 bytes | 374.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Sushantjha1236/new5.git
86dce21..a4bad9f main -> main
```

7. Verify the updated remote repository with fl.java.



The screenshot shows the GitHub interface for a repository named 'new5' by user 'Sushantjha1236'. The 'Code' tab is selected, displaying the file 'file1.java'. The file content is as follows:

```
1  class gitEx5
2  {
3      public static void main(String args[])
4      {
5          System.out.println("hiee its sushant ");
6      }
7  }
```

8. Create another repository on GitHub, this time with README.md.
9. Link this remote repository to our local repository using `git remote add or2 <url of the second repo>`.
10. Check existing remote linked repositories using `git remote -v` command.

```
ASUS TUF@sushant MINGW64 ~/Desktop/new5 (main)
$ git remote add or2 https://github.com/Sushantjha1236/new5.2.git

ASUS TUF@sushant MINGW64 ~/Desktop/new5 (main)
$ git remote -v
or2      https://github.com/Sushantjha1236/new5.2.git (fetch)
or2      https://github.com/Sushantjha1236/new5.2.git (push)
origin   https://github.com/Sushantjha1236/new5.git (fetch)
origin   https://github.com/Sushantjha1236/new5.git (push)
```

11. Attempt to update the local repository with the remote repository using `git pull or2 main`, which returns an error.
12. Merge the contents of both remote repositories with different commit histories into a single local repository using `git pull or2 main --allow-unrelated-histories`.

```
ASUS TUF@sushant MINGW64 ~/Desktop/new5 (main)
$ git pull or2 main
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 864 bytes | 123.00 KiB/s, done.
From https://github.com/Sushantjha1236/new5.2
* branch          main      -> FETCH_HEAD
* [new branch]     main      -> or2/main
fatal: refusing to merge unrelated histories

ASUS TUF@sushant MINGW64 ~/Desktop/new5 (main)
$ git pull or2 main --allow-unrelated-histories
From https://github.com/Sushantjha1236/new5.2
* branch          main      -> FETCH_HEAD
Merge made by the 'ort' strategy.
 README.md | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
```

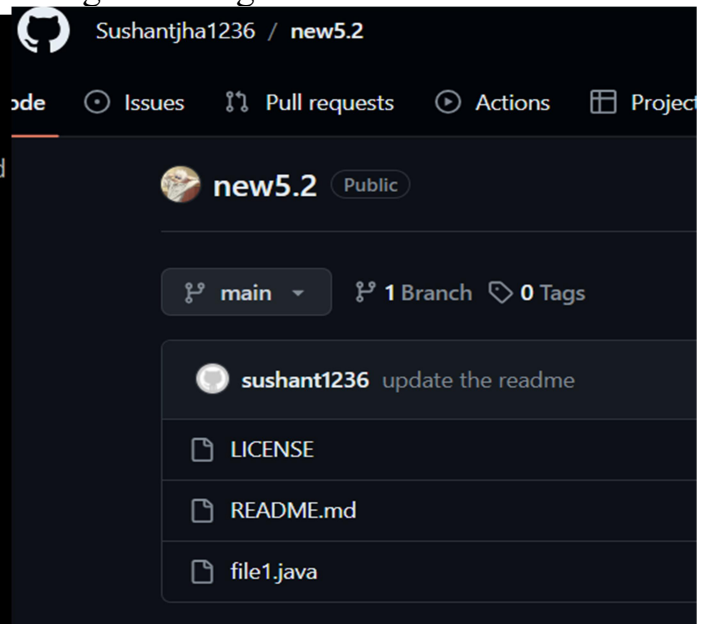
13. Change the contents of README.md file using `vi` command.
14. Push the changes back to the remote repository (new5.2) using `git push dope main` after adding the file to the staging area and committing the changes.

```
ASUS TUF@sushant MINGW64 ~/Desktop/new5 (main)
$ vi README.md

ASUS TUF@sushant MINGW64 ~/Desktop/new5 (main)
$ git add .
warning: in the working copy of 'README.md', LF will be replaced

ASUS TUF@sushant MINGW64 ~/Desktop/new5 (main)
$ git commit -m "update the readme"
[main 5392bde] update the readme
 1 file changed, 2 insertions(+), 1 deletion(-)

ASUS TUF@sushant MINGW64 ~/Desktop/new5 (main)
$ git push or2 main
Enumerating objects: 16, done.
Counting objects: 100% (16/16), done.
Delta compression using up to 12 threads
Compressing objects: 100% (12/12), done.
Writing objects: 100% (14/14), 14.56 KiB | 4.85 MiB/s, done.
Total 14 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Sushantjha1236/new5.2.git
 96306b3..5392bde main -> main
```



Learning outcomes (What I have learnt):

1. Understanding Git Workflow
2. Learnt about commit, merge and add commands.
3. Version Control Proficiency.
4. Committing changes.
5. Learnt about how to pull request and push in git bash.

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.			