Experiment -2.4

Student Name: Sushant jha **UID: 22BDO10052**
Branch: CSE (Devops) **Section/Group: 22BCD-1\A**
Semester: 4th **Date of Performance: 13/03/24**
Subject Name: Git and Git Hub **Subject Code: 22CSH-293**

1. **Aim/Overview of the practical:**
   Git Merge Conflicts and resolving Git merge conflicts
2. **Software Used:**

   Git Bash, Git-Hub.
3. **Steps for experiment/practical:**

1. Clone the repository from the remote to your local system and navigate into it.

```
ASUS TUF@sushant MINGW64 ~/Desktop/gitandgitHUb (main)
$ git clone https://github.com/Sushantjha1236/new.git
Cloning into 'new'...
remote: Enumerating objects: 40, done.
remote: Counting objects: 100% (40/40), done.
remote: Compressing objects: 100% (34/34), done.
remote: Total 40 (delta 11), reused 10 (delta 2), pack-reused 0
Receiving objects: 100% (40/40), 25.73 KiB | 25.73 MiB/s, done.
Resolving deltas: 100% (11/11), done.
d
ASUS TUF@sushant MINGW64 ~/Desktop/gitandgitHUb (main)
$ cd new
```

2. Create a new file on your local system, add it to the staging area, and commit the changes.

```
ASUS TUF@sushant MINGW64 ~/Desktop/gitandgitHUb/new (main)
$ vi exp_7.java

ASUS TUF@sushant MINGW64 ~/Desktop/gitandgitHUb/new (main)
$ git add exp_7.java
warning: in the working copy of 'exp_7.java', LF will be rep

ASUS TUF@sushant MINGW64 ~/Desktop/gitandgitHUb/new (main)
$ git commit -m "multiplication code added"
[main fff4ee2] multiplication code added
 1 file changed, 10 insertions(+)
 create mode 100644 exp_7.java
```

3. Create a new branch called "feature1", switch to it, make modifications to the file, add these changes to the staging area, and commit them.

```
ASUS TUF@sushant MINGW64 ~/Desktop/gitandgitHUb/new (main)
$ git checkout -b feature1
Switched to a new branch 'feature1'

ASUS TUF@sushant MINGW64 ~/Desktop/gitandgitHUb/new (feature1)
$ vi exp

ASUS TUF@sushant MINGW64 ~/Desktop/gitandgitHUb/new (feature1)
$ vi exp_7.java

ASUS TUF@sushant MINGW64 ~/Desktop/gitandgitHUb/new (feature1)
$ git add exp_7.java
warning: in the working copy of 'exp_7.java', LF will be replac

ASUS TUF@sushant MINGW64 ~/Desktop/gitandgitHUb/new (feature1)
$ git commit -m "computed for x=87 and y =21"
[feature1 d710724] computed for x=87 and y =21
 1 file changed, 2 insertions(+), 2 deletions(-)
```

4. Switch back to the main branch and merge the changes from the "feature1" branch using the git merge command with the --no-ff option.

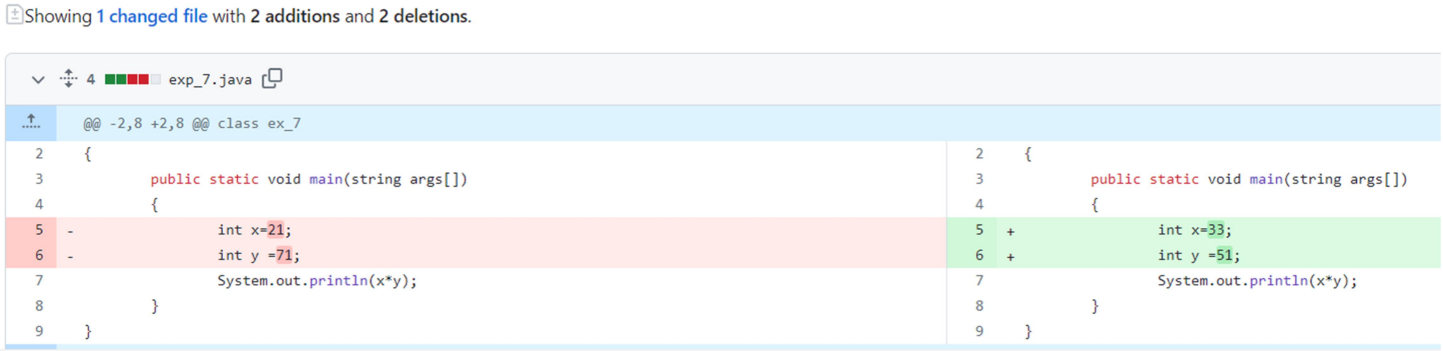
```
ASUS TUF@sushant MINGW64 ~/Desktop/gitandgitHUb/new (main)
$ git merge --no-ff feature1
Merge made by the 'ort' strategy.
 exp_7.java | 4 ++--
 1 file changed, 2 insertions(+), 2 deletions(-)
```

5. Push the changes to the remote repository.

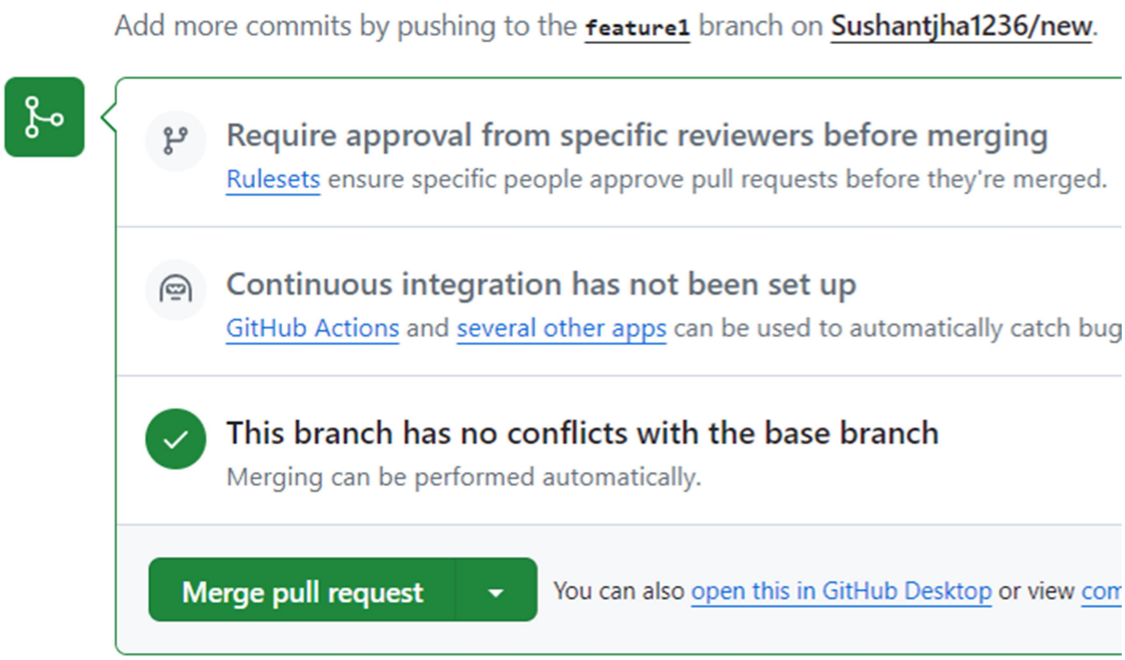
```
ASUS TUF@sushant MINGW64 ~/Desktop/gitandgitHUb/new (main)
$ git push origin main
Enumerating objects: 8, done.
Counting objects: 100% (8/8), done.
Delta compression using up to 12 threads
Compressing objects: 100% (7/7), done.
Writing objects: 100% (7/7), 739 bytes | 739.00 KiB/s, done.
Total 7 (delta 4), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (4/4), completed with 1 local object.
To https://github.com/Sushantjha1236/new.git
   aec05aa..bf955d8  main -> main

ASUS TUF@sushant MINGW64 ~/Desktop/gitandgitHUb/new (main)
$ git push origin feature1
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'feature1' on GitHub by visiting:
remote:      https://github.com/Sushantjha1236/new/pull/new/feature1
remote:
To https://github.com/Sushantjha1236/new.git
 * [new branch]      feature1 -> feature1
```

6. Switch to the "feature1" branch on the remote repository, make additional changes, and commit them.
7. Return to the main branch, initiate a pull request by comparing the changes between the main and "feature1" branches.



8. Merge the pull request and confirm the merge.



9. Verify the merged changes in the main branch.

Learning outcomes (What I have learnt):

1. Understanding Git Workflow
2. Learnt about Fork.
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.			