Experiment -2.4

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Branch: CSE(DEVOPS) **Section/Group:22BCD-1/A**
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Subject Name:GIT AND GITHUB **Subject Code: 22CSH-293**

1. Aim/Overview of the practical:: Git merge conflicts and resolving git merge conflicts

2. Software used: Git Bash and Github.

3. Steps for experiment:

❖ **Clone a repo from the remote to the local system and move inside it.**

❖ **Create a file in the local system, add it to the staging area and commit the changes.**

```
Aditis-MacBook-Air:~ aditipandey$ git clone https://github.com/AditiPandey568/exp7.git
Cloning into 'exp7'...
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), done.
Aditis-MacBook-Air:~ aditipandey$ cd exp7
Aditis-MacBook-Air:exp7 aditipandey$ vi file7.c
Aditis-MacBook-Air:exp7 aditipandey$ git add file7.c
Aditis-MacBook-Air:exp7 aditipandey$ git commit -m "upper_bound=100 and lower_bound=100"
[main 5fdb0f3] upper_bound=100 and lower_bound=100
 1 file changed, 24 insertions(+)
 create mode 100644 file7.c
```

❖ Create a new branch named newbranch, checkout to it, made some changes in the file, add it to the staging area and commit the changes.

```
Aditis-MacBook-Air:exp7 aditipandey$ git checkout -b newbranch
Switched to a new branch 'newbranch'
Aditis-MacBook-Air:exp7 aditipandey$ vi file7.c
Aditis-MacBook-Air:exp7 aditipandey$ git add file7.c
Aditis-MacBook-Air:exp7 aditipandey$ git commit -m "upper_bound=100 and lower_bound=50"
[newbranch a5d8493] upper_bound=100 and lower_bound=50
 1 file changed, 3 insertions(+), 4 deletions(-)
Aditis-MacBook-Air:exp7 aditipandey$ git branch
  main
* newbranch
```

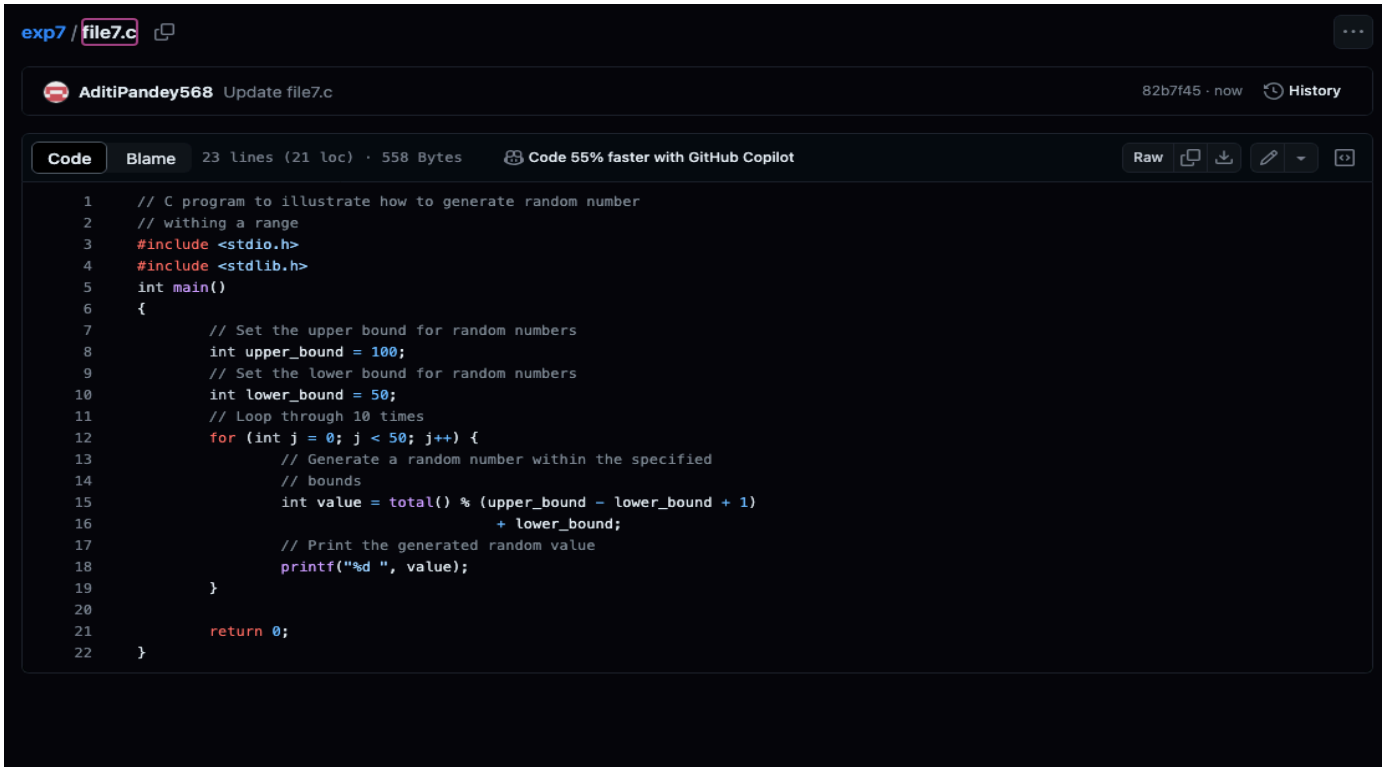
❖ Checkout to the main branch and merge the changes using the git merge command.

```
Aditis-MacBook-Air:exp7 aditipandey$ git checkout main
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)
```

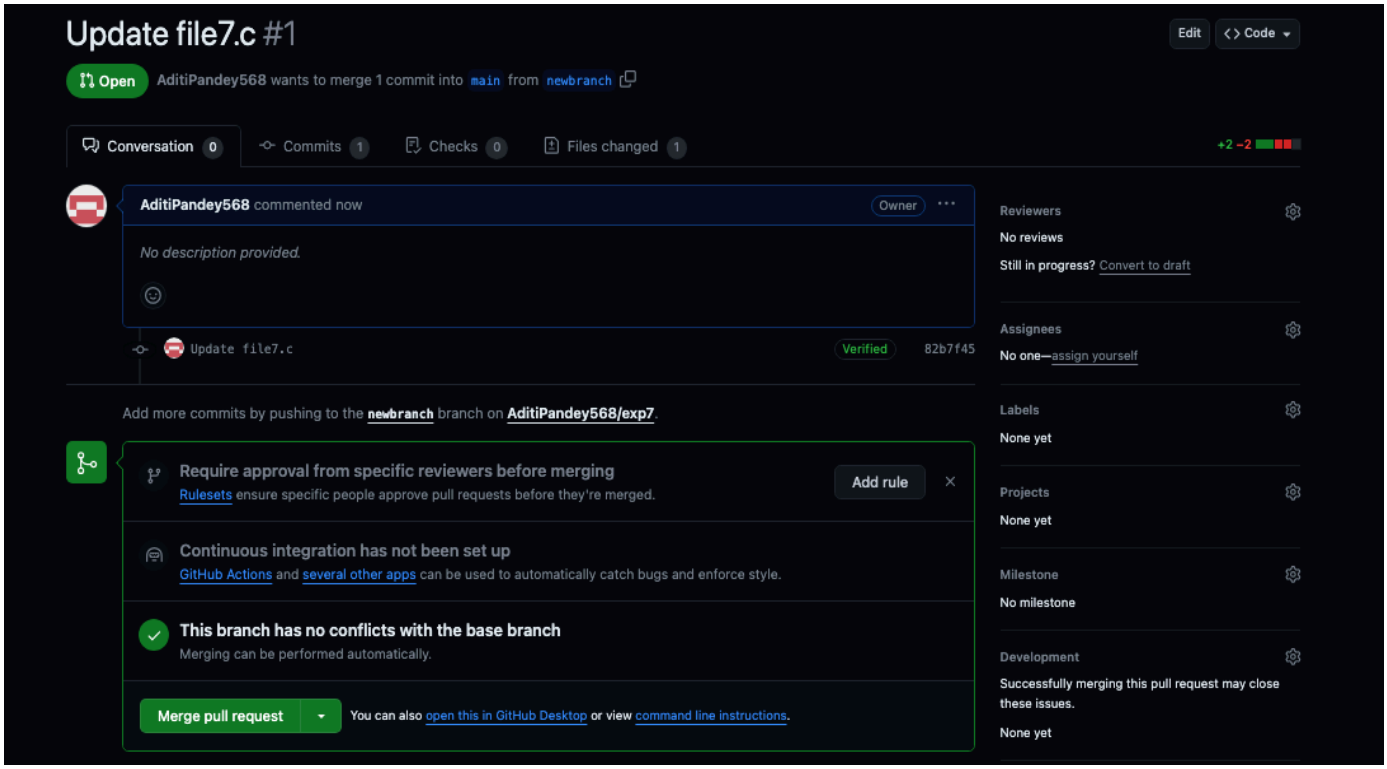
❖ Push the changes to the remote repository.

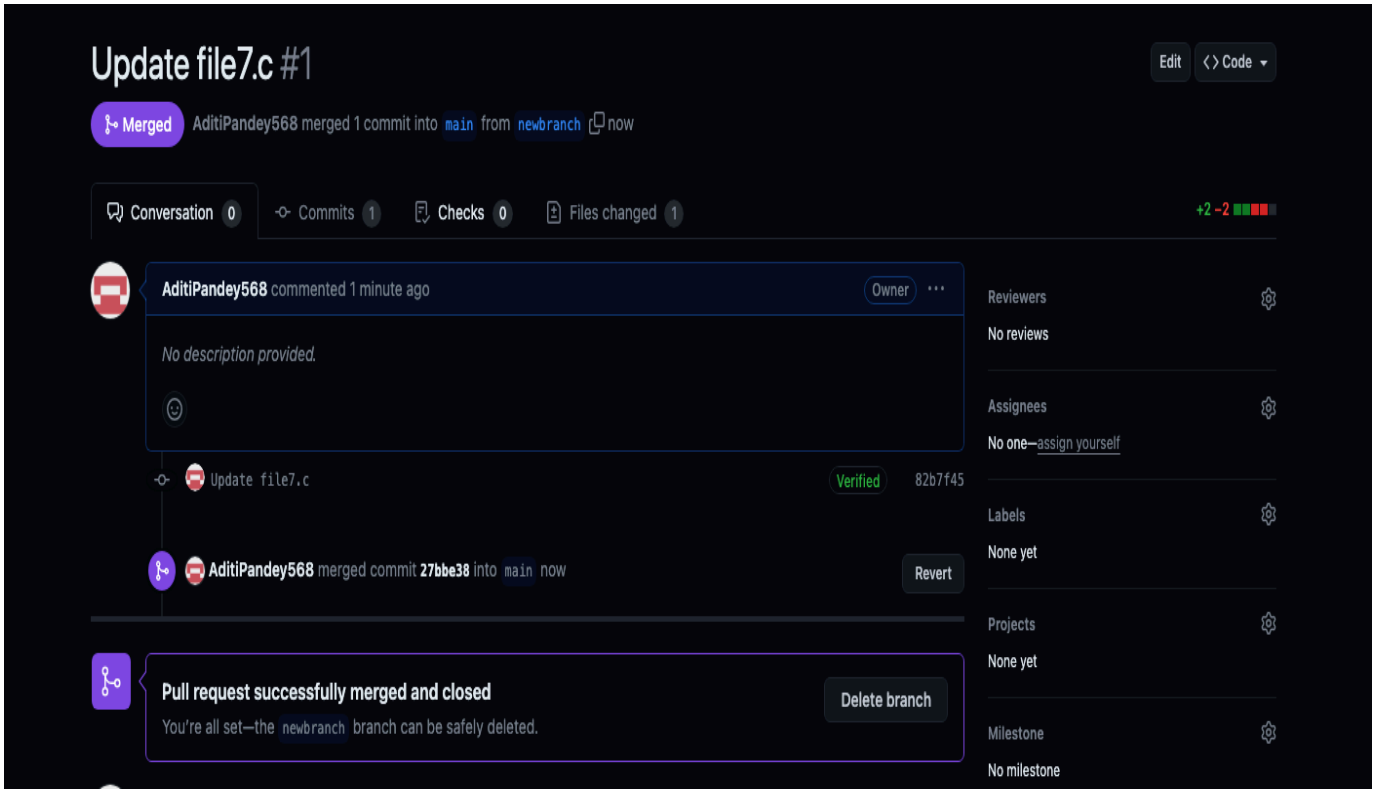
```
Aditis-MacBook-Air:exp7 aditipandey$ git merge newbranch
Already up to date.
Aditis-MacBook-Air:exp7 aditipandey$ git push origin main
Counting objects: 7, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (7/7), done.
Writing objects: 100% (7/7), 906 bytes | 302.00 KiB/s, done.
Total 7 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), done.
To https://github.com/AditiPandey568/exp7.git
   a45e8f3..a762562  main -> main
Aditis-MacBook-Air:exp7 aditipandey$ git push origin newbranch
Total 0 (delta 0), reused 0 (delta 0)
remote:
remote: Create a pull request for 'newbranch' on GitHub by visiting:
remote:      https://github.com/AditiPandey568/exp7/pull/new/newbranch
remote:
To https://github.com/AditiPandey568/exp7.git
 * [new branch]      newbranch -> newbranch
Aditis-MacBook-Air:exp7 aditipandey$
```

❖ Now, move to the newbranch on remote repo, make some changes and commit them.

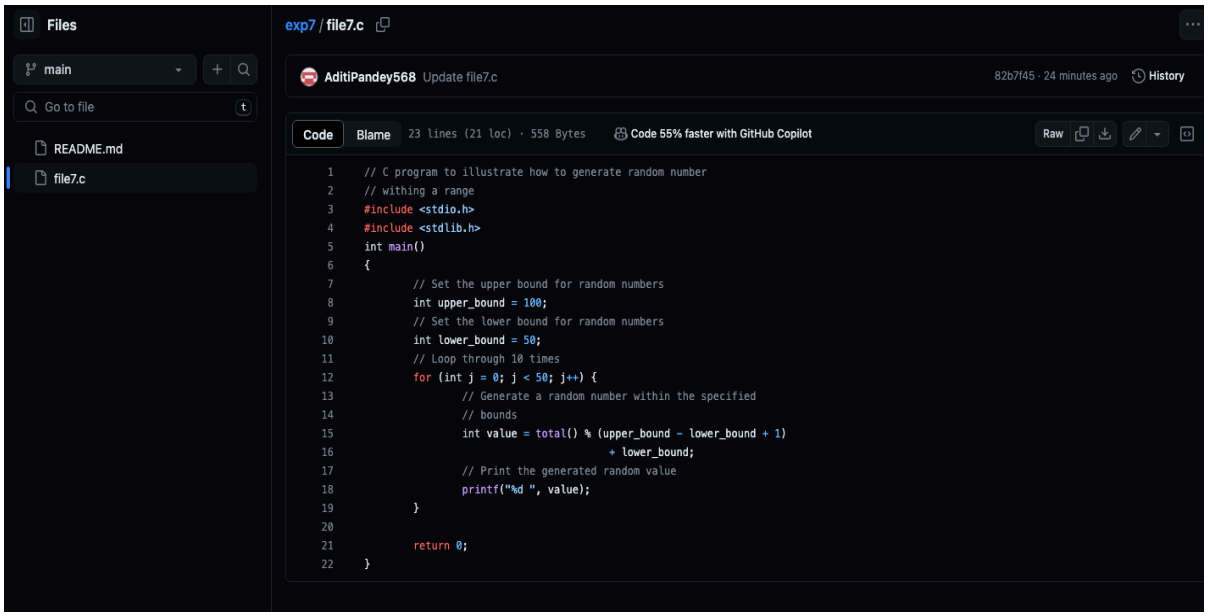


❖ Now, merge the pull request and confirm merge.





❖ **You can see the changes in the main branch.**



5. Result/Output/Writing Summary:

In this experiment, we have merge the contents of a branch to the main branch using pull request on both git bash and github.

Learning outcomes (What I have learnt):

1. Learnt how to create a branch.

2. Learnt how to clone a remote repo to our local system.

3. Learnt how to create a pull request and handle their merging.

4. Learnt to merge two branches.

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.			