



Experiment -2.1

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Branch: AITCSE(DevOps) **Section/Group**: 22BCD-1(A)

Semester: Fourth

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Subject Name: Git and Hub Subject Code: 22CSH-293

1. Aim/Overview of the practical: To Edit a file and commit the changes on GitHub.

2. Software Used: Git Bash, GitHub.

3. Steps for experiment/practical:

- a) Create or clone a repository on your local machine and open GIT BASH.
- b) Move to the directory using the **cd** command.
- c) In our case, the repository is there, so we used the git init command, to initialize the already loaded git repository.
- d) Create or open a file in the master or main branch, eg, exp. c and add some text to the file.
- e) Add the file to the staging area using **git add** and then commit the changes using the **git commit -m** message.
- f) Pull the changes to the remote repo using the command git push <remote_name>

 dit push origin rep.
- g) You will be able to see the changes in the remote repository.
- h) Now, make some changes in the file in the remote repository and pull those changes in the local repository.
- i) Create a new branch and checkout to it using the **git checkout -b** command, eg, **rep**.
- j) Open the exp. c on the vi editor and make some changes to it.
- k) Merge the changes made in the **test** branch with the **master** branch and resolve the conflicts manually if necessary.
- 1) Push the **master** and **rep** branch onto the remote repository.
- m) You will be able to see the new changes in the remote repository.
- n) Now, Go to Git Hub, open the repository move to the **rep** branch and make some changes in a file.







- o) Commit the changes and move to the **master** branch. Click on the **Compare & Pull** request.
- p) Create the pull request, resolve the merge conflicts (if any) and then merge the pull request.
- q) After the merging, you may choose to delete your branch, i.e., rep
- r) Now, pull the changes to the local repository using **git pull**.
- s) You will be able to see the changes in your local repository.

4. Outputs:







```
aaryans-MacBook-Air:~ aaryanmaheshwari$ cd Git-and-GitHub
aaryans-MacBook-Air:Git-and-GitHub aaryanmaheshwari$ vi exp.c
aarvans-MacBook-Air:Git-and-GitHub aarvanmaheshwari$ git add exp.c
[aaryans-MacBook-Air:Git-and-GitHub aaryanmaheshwari$ git commit -m"first program"
[[main 951e187] first program
 2 files changed, 8 insertions(+), 1 deletion(-)
 create mode 100644 exp.c
aaryans-MacBook-Air:Git-and-GitHub aaryanmaheshwari$ git push origin main
Counting objects: 4, done.
Delta compression using up to 8 threads.
[Compressing objects: 100% (3/3), done.
Writing objects: 100% (4/4), 451 bytes | 451.00 KiB/s, done.
Total 4 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/Aaryan-2104/Git-and-GitHub.git
   8dbd86c..951e187 main -> main
aaryans-MacBook-Air:Git-and-GitHub aaryanmaheshwari$ git checkout -b rep
Switched to a new branch 'rep'
aaryans-MacBook-Air:Git-and-GitHub aaryanmaheshwari$ vi exp.c
[aaryans-MacBook-Air:Git-and-GitHub aaryanmaheshwari$ git add .
aaryans-MacBook-Air:Git-and-GitHub aaryanmaheshwari$ git commit -m"branch committ"
[[rep 1be7ce2] branch committ
1 file changed, 1 insertion(+), 1 deletion(-)
[aaryans-MacBook-Air:Git-and-GitHub aaryanmaheshwari$ git push origin rep
Counting objects: 3, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (3/3), done.
[Writing objects: 100% (3/3), 381 bytes | 381.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'rep' on GitHub by visiting:
remote:
             https://github.com/Aaryan-2104/Git-and-GitHub/pull/new/rep
remote:
To https://github.com/Aaryan-2104/Git-and-GitHub.git
 * [new branch]
                     rep -> rep
aaryans-MacBook-Air:Git-and-GitHub aaryanmaheshwari$
```

Commands related to the experiment on GitBash







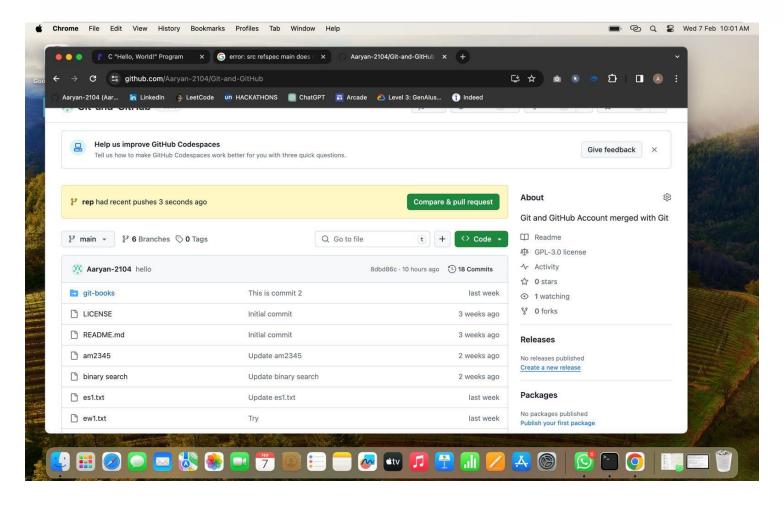
```
aaryans-MacBook-Air:Git-and-GitHub aaryanmaheshwari$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
aaryans-MacBook-Air:Git-and-GitHub aaryanmaheshwari$ git diff rep
diff --git a/exp.c b/exp.c
index b2ae9c5..5615943 100644
--- a/exp.c
+++ b/exp.c
@@ -1,7 +1,7 @@
 #include <stdio.h>
 int main() {
    // printf() displays the string inside quotation
    printf("Hola amigoes! This side Aaryan Maheshwari");
+ printf("Hello, World!");
    return 0;
 }
aaryans-MacBook-Air:Git-and-GitHub aaryanmaheshwari$
```

Continued Commands related to the experiment on GitBash







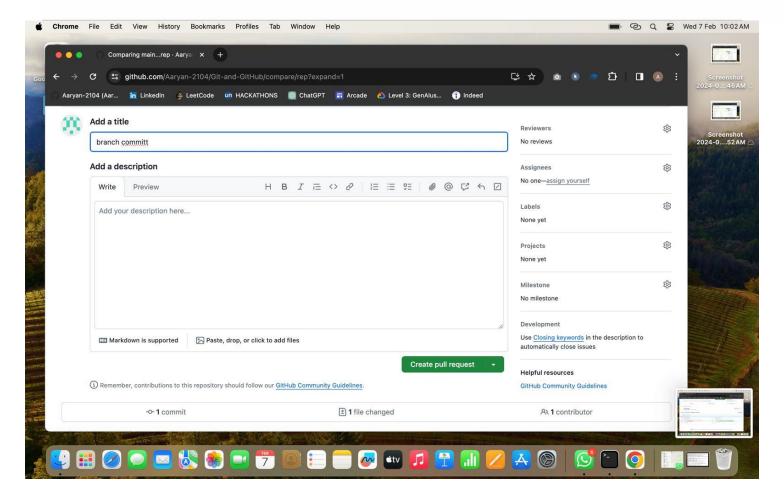


Check for Request onto the account







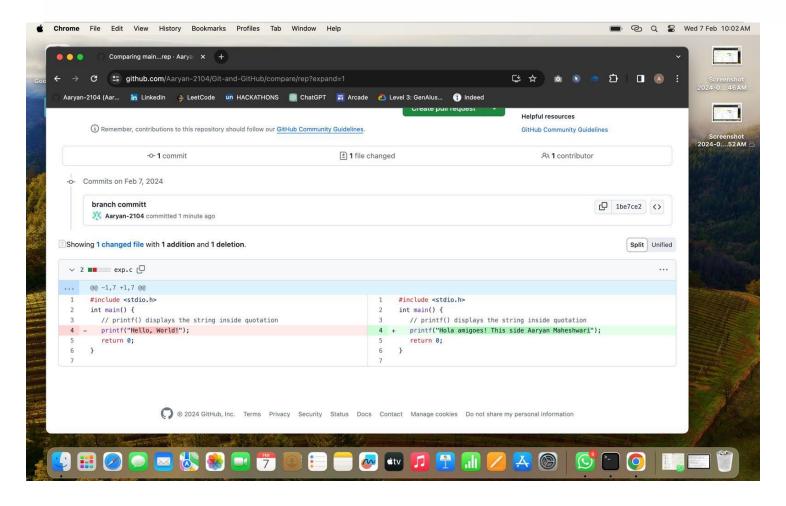


Name the commit







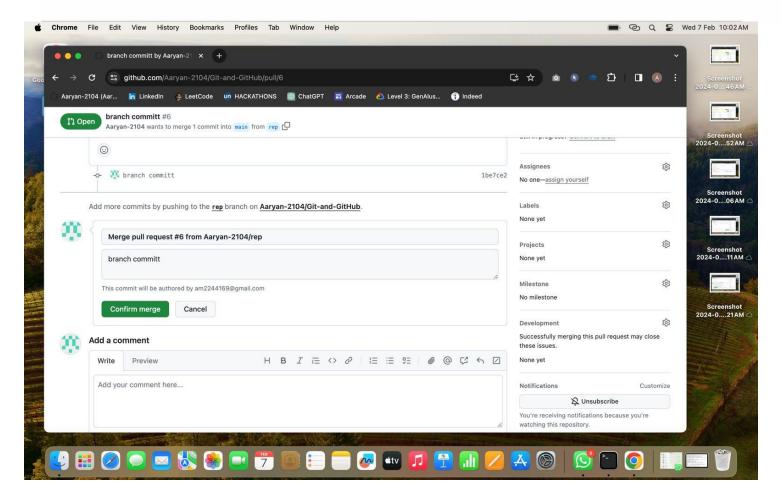


Review the changes







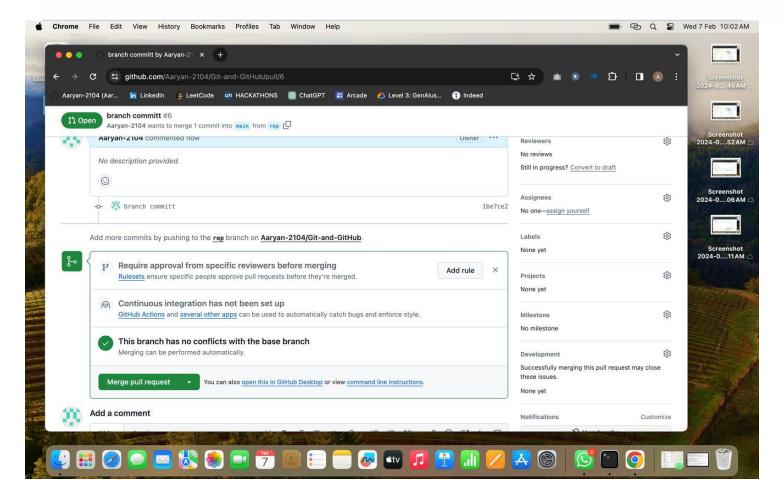


Confirm the Merge Request







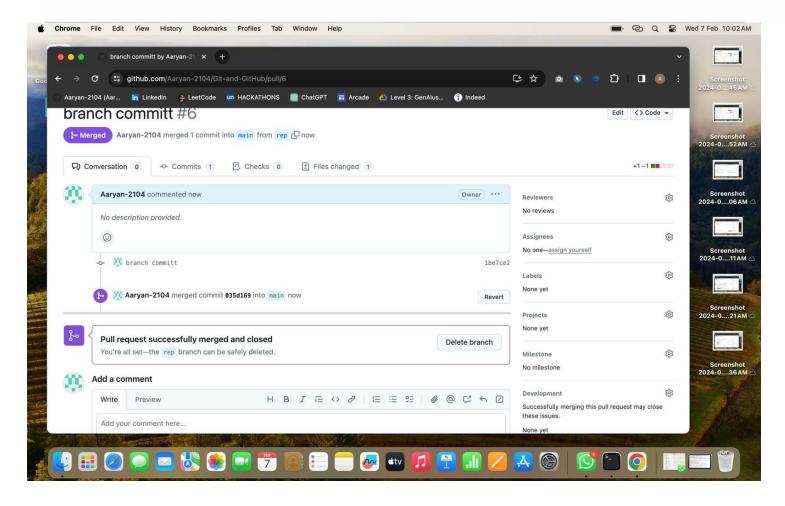


Verify the request









Successfully created































5. Result/Output/Writing Summary:- In this experiment, we edited a file in the local repository and showed the changes on the remote repository and vice versa. For this purpose, we have made use of both Git and GitHub.

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.			







