

Experiment -2.2

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Branch: CSE (Devops)

Semester: 4th

Subject Name: Git and Git Hub

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Section/Group: 22BCD-1\A

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Subject Code: 22CSH-293

1. **Aim/Overview of the practical:** To Merge Pull Request and Update local repository on GitHub.
2. **Software Used:** Git Bash, Git-Hub.
3. **Steps for experiment/practical:**
 1. Create a new local repository and initialize it using git init.
 2. Add a file file1.txt and edit it using the vi command.
 3. After that add it to the staging area and then commit it.

```
MINGW64/C:/Users/ATINSHAY/experiment
ATINSHAY@LAPTOP-89PK0AT0 MINGW64 - (master)
$ mkdir experiment
ATINSHAY@LAPTOP-89PK0AT0 MINGW64 - (master)
$ cd experiment
ATINSHAY@LAPTOP-89PK0AT0 MINGW64 ~/experiment (master)
$ git init
Initialized empty Git repository in C:/Users/ATINSHAY/experiment/.git/
ATINSHAY@LAPTOP-89PK0AT0 MINGW64 ~/experiment (master)
$ touch file1.txt
ATINSHAY@LAPTOP-89PK0AT0 MINGW64 ~/experiment (master)
$ vi file1.txt
ATINSHAY@LAPTOP-89PK0AT0 MINGW64 ~/experiment (master)
$ cat file1.txt
Hello world this is Atinshay
ATINSHAY@LAPTOP-89PK0AT0 MINGW64 ~/experiment (master)
$ git add file1.txt
warning: in the working copy of 'file1.txt', LF will be replaced by CRLF
ATINSHAY@LAPTOP-89PK0AT0 MINGW64 ~/experiment (master)
$ git commit -m "text is added to the file"
[master (root-commit) 4a798e4] text is added to the file
1 file changed, 1 insertion(+)
create mode 100644 file1.txt
ATINSHAY@LAPTOP-89PK0AT0 MINGW64 ~/experiment (master)
$ git status
On branch master
nothing to commit, working tree clean
```

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>`.
6. Push the changes to the remote repository using `git push -u origin main`.

```

ATINSHAY@LAPTOP-89PK0ATO MINGW64 ~/experiment (master)
$ git remote add origin https://github.com/AtinshayAwasthi/exp5.git

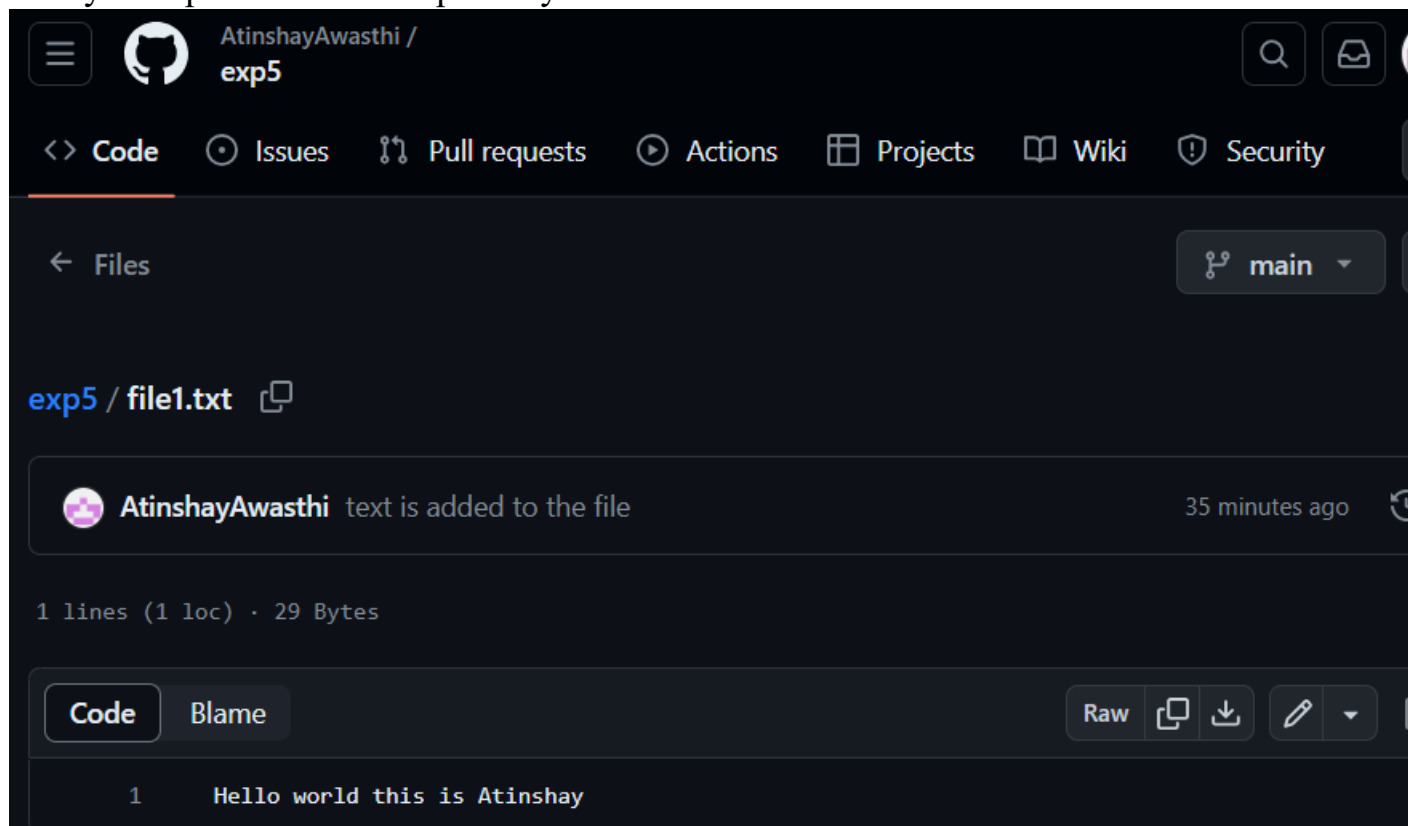
ATINSHAY@LAPTOP-89PK0ATO MINGW64 ~/experiment (master)
$ git remote -v
origin https://github.com/AtinshayAwasthi/exp5.git (fetch)
origin https://github.com/AtinshayAwasthi/exp5.git (push)

ATINSHAY@LAPTOP-89PK0ATO MINGW64 ~/experiment (master)
$ git branch -m main

ATINSHAY@LAPTOP-89PK0ATO MINGW64 ~/experiment (main)
$ git push -u origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 246 bytes | 246.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/AtinshayAwasthi/exp5.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.

```

7. Verify the updated remote repository.



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

```
ATINSHAY@LAPTOP-89PK0ATO MINGW64 ~/experiment (main)
$ git remote add or https://github.com/AtinshayAwasthi/exp5.2.git

ATINSHAY@LAPTOP-89PK0ATO MINGW64 ~/experiment (main)
$ git remote -v
or      https://github.com/AtinshayAwasthi/exp5.2.git (fetch)
or      https://github.com/AtinshayAwasthi/exp5.2.git (push)
origin  https://github.com/AtinshayAwasthi/exp5.git (fetch)
origin  https://github.com/AtinshayAwasthi/exp5.git (push)
```

11. Attempt to update the local repository with the remote repository using git pull or 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 or main --allow-unrelated-histories.

```
ATINSHAY@LAPTOP-89PK0ATO MINGW64 ~/experiment (main)
$ git pull or 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 | 96.00 KiB/s, done.
From https://github.com/AtinshayAwasthi/exp5.2
 * branch      main      -> FETCH_HEAD
 * [new branch] main      -> or/main
fatal: refusing to merge unrelated histories

ATINSHAY@LAPTOP-89PK0ATO MINGW64 ~/experiment (main)
$ git pull or main --allow-unrelated-histories
From https://github.com/AtinshayAwasthi/exp5.2
 * 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 the README.md file using vi command.
14. Push the changes back to the remote repository (exp 5.2) using git push dope main after adding the file to the staging area and committing the changes.

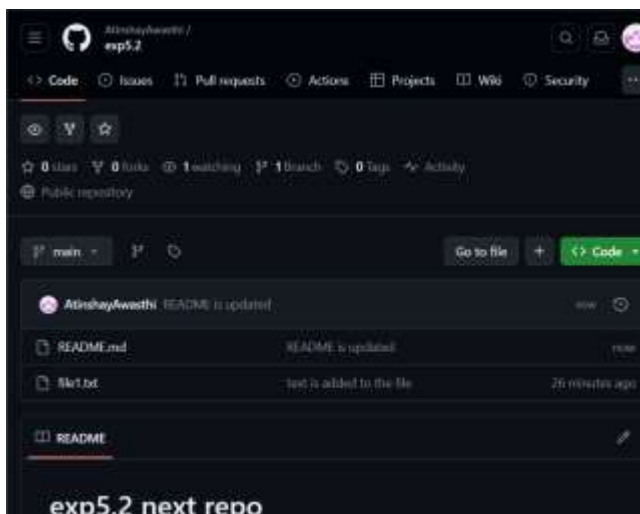
```

ATINSHAY@LAPTOP-89PKOATO MINGW64 ~/experiment (main)
$ vi README.md

ATINSHAY@LAPTOP-89PKOATO MINGW64 ~/experiment (main)
$ git add .
warning: in the working copy of 'README.md', LF will be replaced
by CRLF when you commit.
If you wish to keep the existing LF behavior, use 'git add --no-
commit' to stage the file and then use 'git commit --no-verify' to
commit the file.
Otherwise, use 'git commit' to commit the file.

ATINSHAY@LAPTOP-89PKOATO MINGW64 ~/experiment (main)
$ git commit -m "README is updated"
[main 2ff319a] README is updated
1 file changed, 1 insertion(+), 1 deletion(-)

ATINSHAY@LAPTOP-89PKOATO MINGW64 ~/experiment (main)
$ git push or main
Enumerating objects: 10, done.
Counting objects: 100% (10/10), done.
Delta compression using up to 6 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (8/8), 816 bytes | 816.00 KiB/s, done.
Total 8 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/AtinshayAwasthi/exp5.2.git
 f6b8112..2ff319a 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.			