Experiment-2.1

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Branch: CSE(DEVOPS)   **Section/Group:** 22BCD-1/B

Semester: 4th   **Date of Performance:** 09 - 02 -24

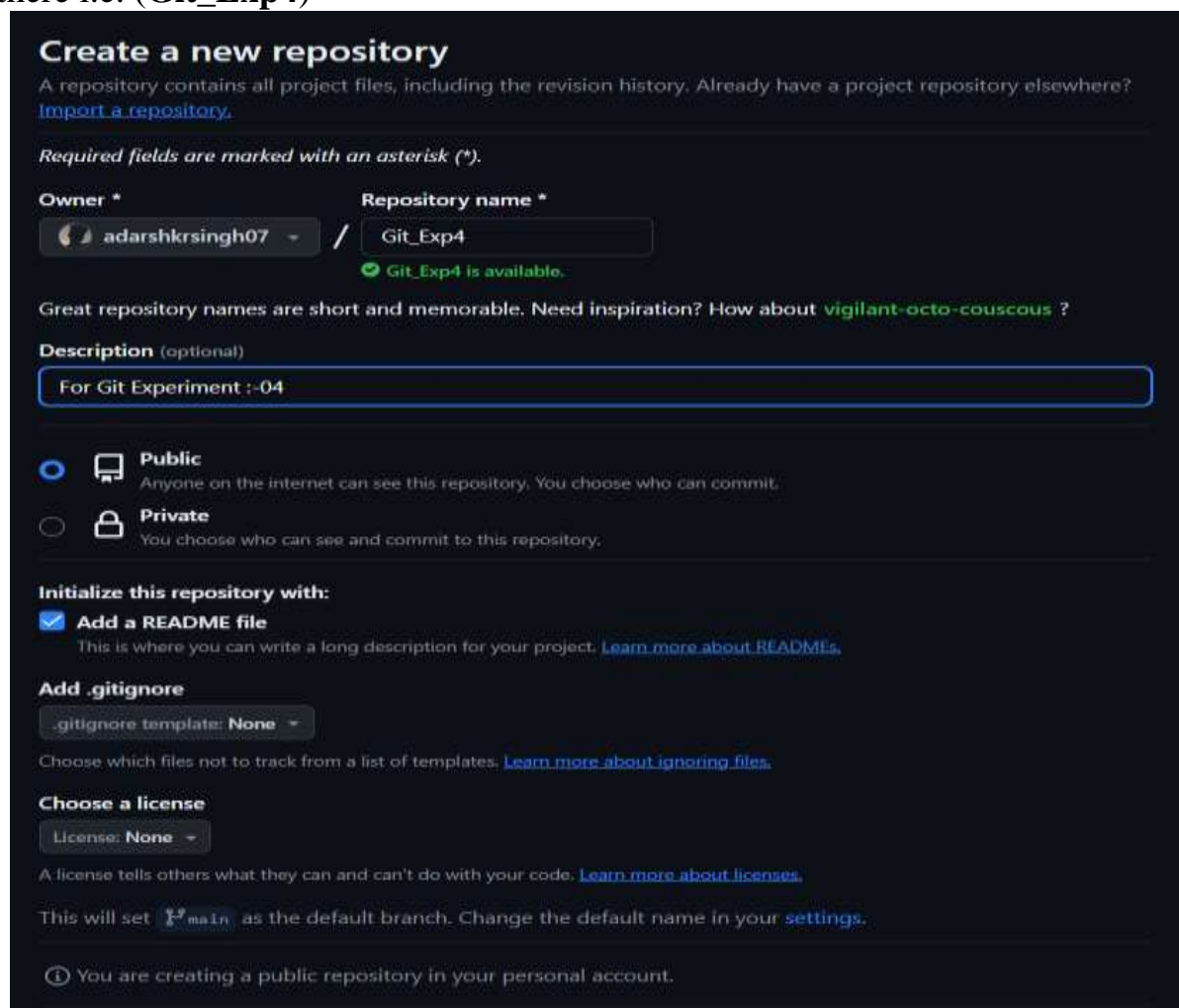**Subject Name:** Git and GitHub   **Subject Code:** 22CSH-293

1. Aim/Overview of the practical: Editing a file and committing changes on GitHub.

2. Task to be done: Creating a file in your remote repository and pulling it to local repository and doing some changes into the file and again pushing it on the GitHub.

3. Software Used: Git Bash, GitHub.

4. Steps for Experiment: -

1) Goto your remote repository i.e. (Github.com) now create a new repository over there i.e. (**Git_Exp4**)

2) Now clone your remote repository on the local repository by copying the link from GitHub.
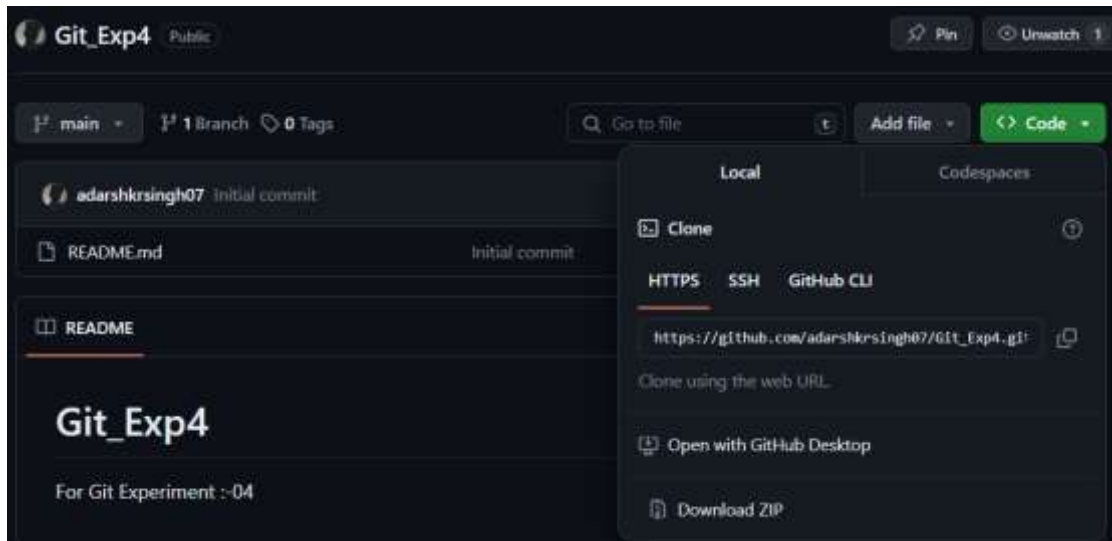
3) Now open git bash and clone your repository i.e. (git clone <link>).

```
adars@ASUS MINGW64 ~ (master)
$ git clone https://github.com/adarshkrsingh07/Git_Exp4.git
Cloning into 'Git_Exp4'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (3/3), done.
```

4) Now go to your repository by (**cd** <repo_name>).

```
adars@ASUS MINGW64 ~ (master)
$ cd Git_Exp4
```

5) Now check for the other file if already present pr created (**ls**). If not then create a file in your current repository by (**vi** <file_name>).

```
adars@ASUS MINGW64 ~/Git_Exp4 (main)
$ ls
README.md

adars@ASUS MINGW64 ~/Git_Exp4 (main)
$ vi Exp.txt
```

6) After creating a file now write something in it by (**vi** <file_name>)

```
adars@ASUS MINGW64 ~/Git_Exp4 (main)
$ cat Exp.txt
hello from git i.e.(local repository).
```

7) Now add and commit your file so that it can be tracked and pushed easily on GitHub, i.e.(git **add .** & git **commit** -m).

```
adars@ASUS MINGW64 ~/Git_Exp4 (main)
$ git add Exp.txt
warning: in the working copy of 'Exp.txt', LF will be replaced by CRLF the next time Git to
uches it

adars@ASUS MINGW64 ~/Git_Exp4 (main)
$ git commit -m "first commit for exp4"
[main f548ea3] first commit for exp4
 1 file changed, 1 insertion(+)
 create mode 100644 Exp.txt
```

8) Now check for status so that no file will be left for adding or committing , i.e.(git status).
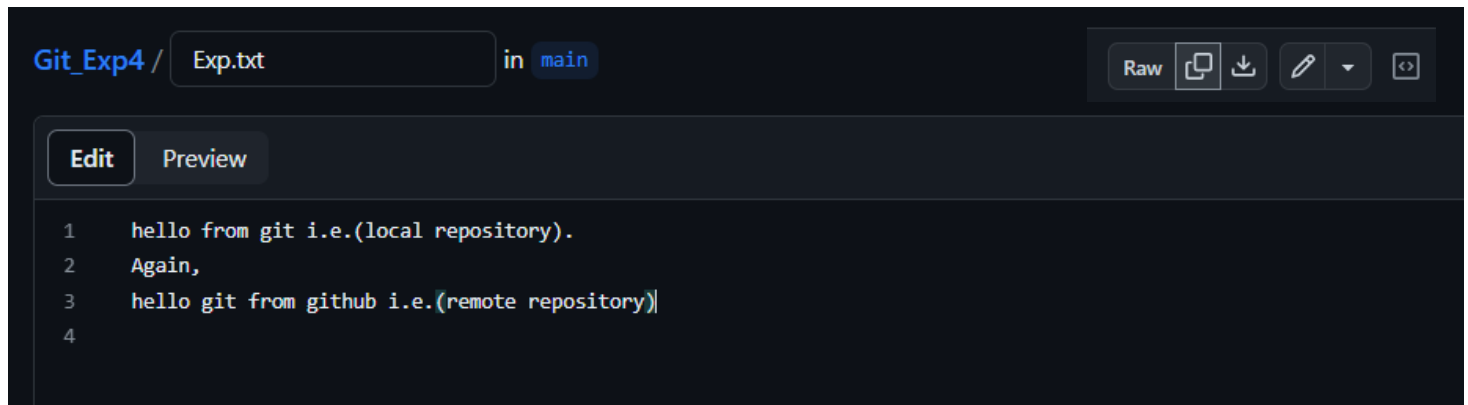
```
adars@ASUS MINGW64 ~/Git_Exp4 (main)
$ git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean
```

9) After committing the file now push it on the GitHub i.e. (**git push** origin main).

```
adars@ASUS MINGW64 ~/Git_Exp4 (main)
$ git push origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 322 bytes | 322.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/adarshkrsingh07/Git_Exp4.git
   40d785a..f548ea3  main -> main
```
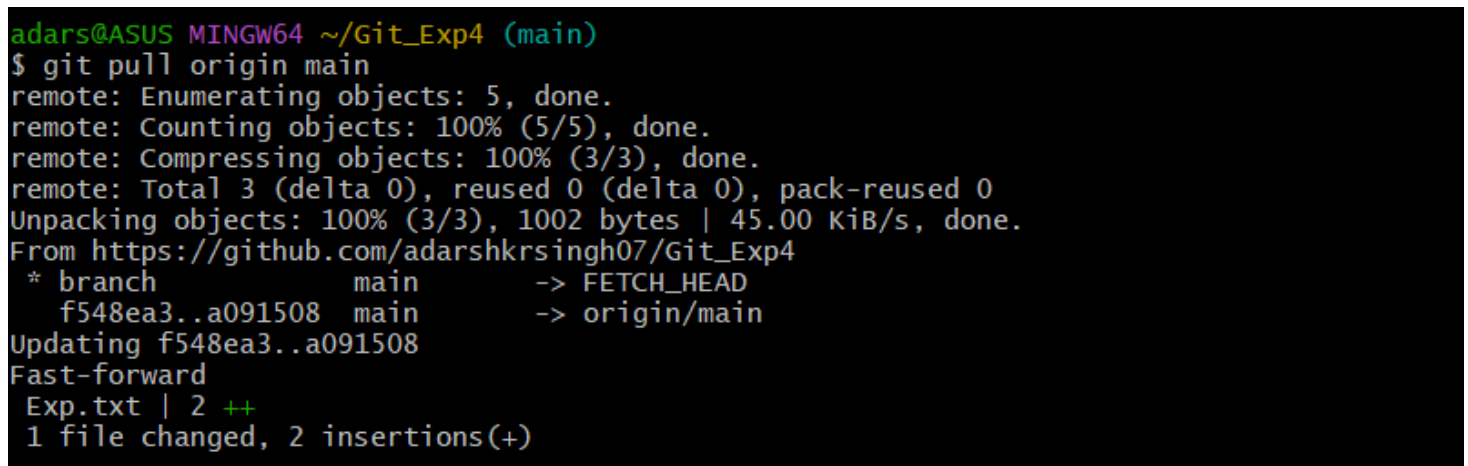
10) Now go to the GitHub and open the pushed file and make some changes over there and commit the changes successfully.

```
Git_Exp4 / Exp.txt                    in main                            Raw  ⧉ ⬇  ✎ ▾  ‹›

  Edit   Preview

  1      hello from git i.e.(local repository).
  2      Again,
  3      hello git from github i.e.(remote repository)
  4
```
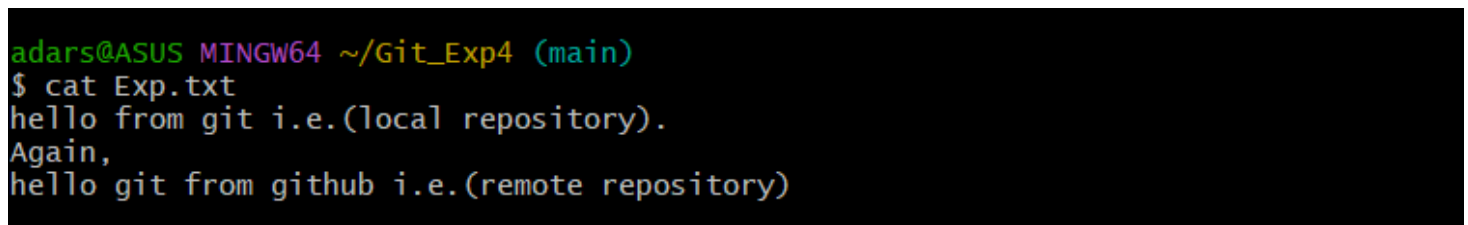
11) Now we use git pull to fetch the content from github to git i.e.(remote to local) by (**git pull** origin main).

```
adars@ASUS MINGW64 ~/Git_Exp4 (main)
$ git pull origin main
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 1002 bytes | 45.00 KiB/s, done.
From https://github.com/adarshkrsingh07/Git_Exp4
 * branch            main         -> FETCH_HEAD
   f548ea3..a091508  main         -> origin/main
Updating f548ea3..a091508
Fast-forward
 Exp.txt | 2 ++
 1 file changed, 2 insertions(+)
```

12) After pulling the content from remote to local repository now see the changes made over there by using (**cat** <file_name>).

```
adars@ASUS MINGW64 ~/Git_Exp4 (main)
$ cat Exp.txt
hello from git i.e.(local repository).
Again,
hello git from github i.e.(remote repository)
```

13) Now we can run a git log commands to see the commits. (**git log**).

```
adars@ASUS MINGW64 ~/Git_Exp4 (main)
$ git log
commit a0915088ad033f57e8dd7b290de34c4a3097749f (HEAD -> main, origin/main, origin/HEAD)
Author: Adarsh Kumar Singh <123314058+adarshkrsingh07@users.noreply.github.com>
Date:   Tue Feb 20 23:21:21 2024 +0530

    Update Exp.txt

commit f548ea35a5ecdc105bc260b677f2f872b5f6ed30
Author: adarshkrsingh07 <adarshkrdixit@gmail.com>
Date:   Tue Feb 20 11:19:12 2024 +0530

    first commit for exp4

commit 40d785a119504697f19e5d346c47ac624857ce83
Author: Adarsh Kumar Singh <123314058+adarshkrsingh07@users.noreply.github.com>
Date:   Tue Feb 20 23:14:01 2024 +0530

    Initial commit
```

We have successfully created a file and merged in the Main Branch.

Learning outcomes (What I have learnt):

1.   Learnt about GitHub.

2.   Learnt about Git.

3.   Learnt about various git commands that can be applied on Git Bash.

4.   Learnt about how to make changes in a file in git and how to push it on github.

5.   Learnt about how to pull request and push source code /files etc.

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.			