

Experiment-2.1

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Section/Group: 22BCD-1/B

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Subject Name: Git and GitHub

Subject Code: 22CSH-293

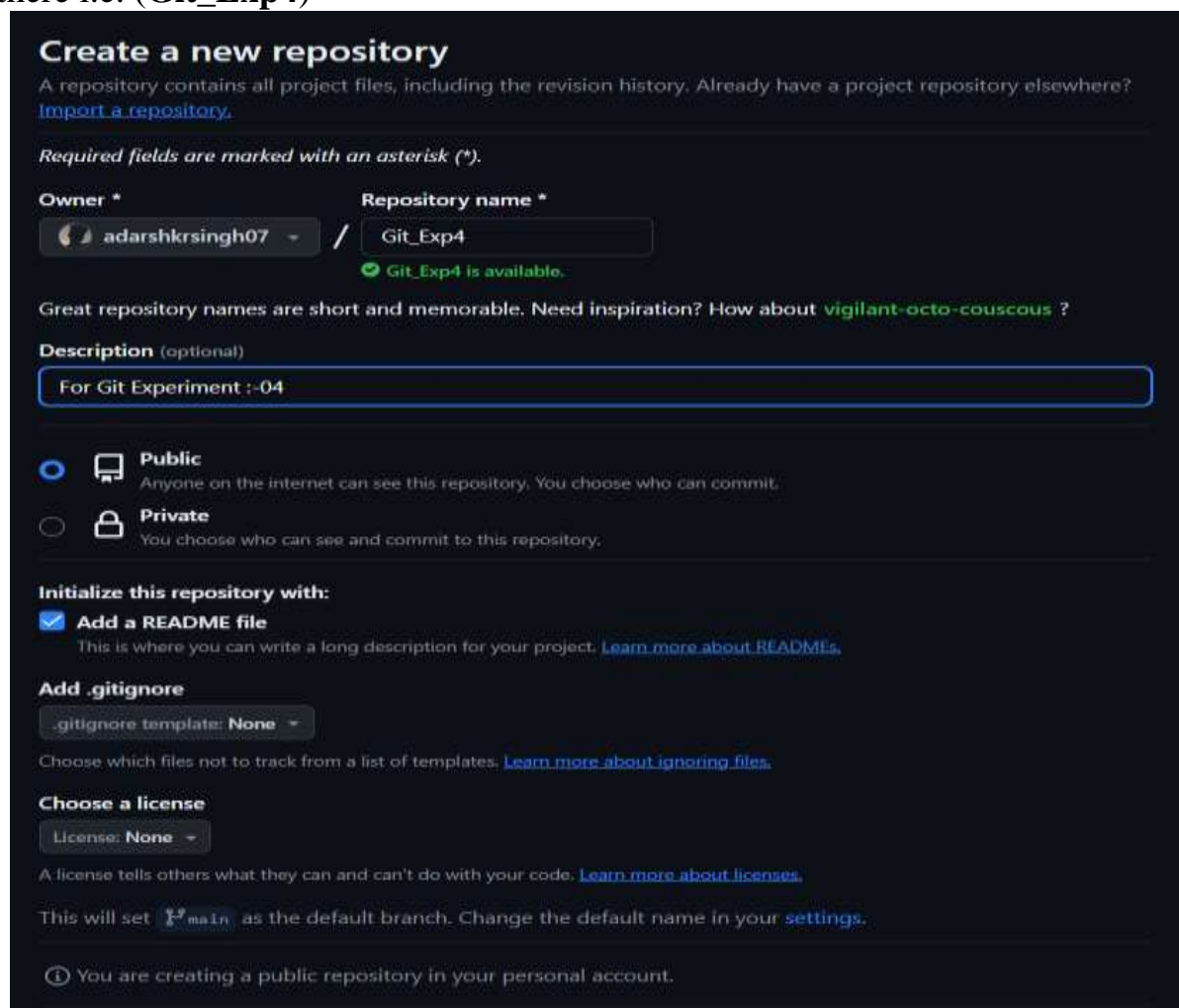
1. Aim/Overview of the practical: Editing a file and committing changes on GitHub.

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**)



Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Required fields are marked with an asterisk (*).

Owner * / Repository name *

☒ Git_Exp4 is available.

Great repository names are short and memorable. Need inspiration? How about [vigilant-octo-couscous](#) ?

Description (optional)

☒ **Public**
Anyone on the internet can see this repository. You choose who can commit.

☐ **Private**
You choose who can see and commit to this repository.

Initialize this repository with:

☒ **Add a README file**
This is where you can write a long description for your project. [Learn more about READMEs.](#)

Add .gitignore

Choose which files not to track from a list of templates. [Learn more about ignoring files.](#)

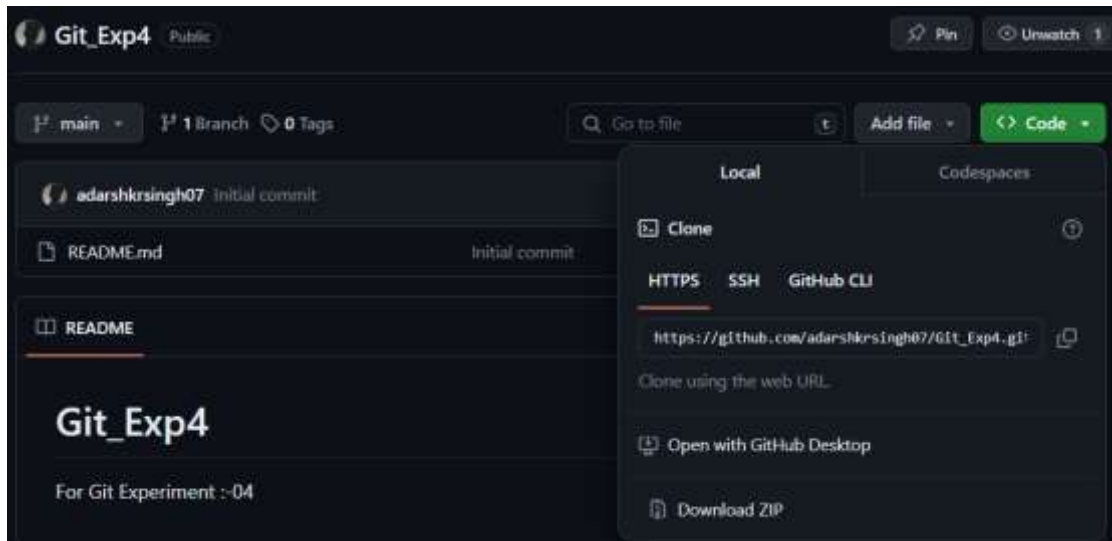
Choose a license

A license tells others what they can and can't do with your code. [Learn more about licenses.](#)

This will set `main` as the default branch. Change the default name in your [settings](#).

☐ You are creating a public repository in your personal account.

- 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 or 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 touches 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**).

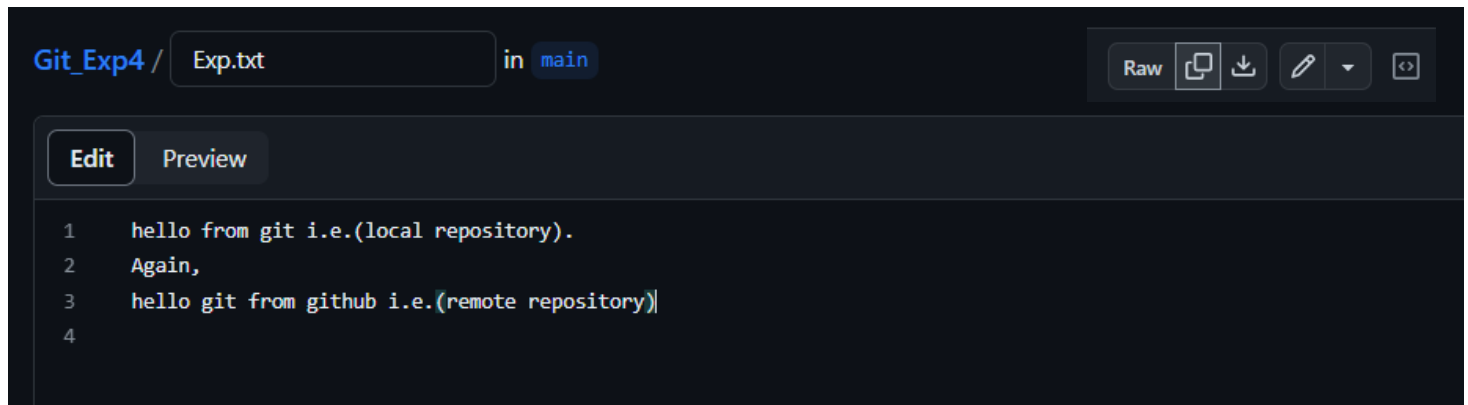
```
adars@ASUS MINGW64 ~/Git_Exp4 (main)
$ git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)

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
```

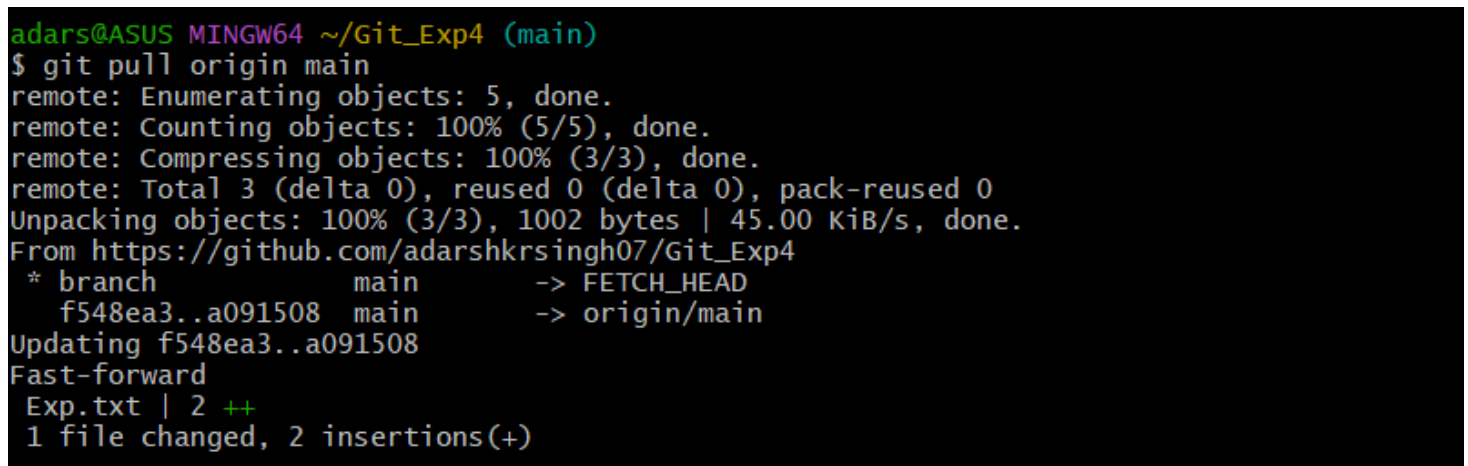
10) Now go to the GitHub and open the pushed file and make some changes over there and commit the changes successfully.



The screenshot shows the GitHub interface for a file named 'Exp.txt' in the 'main' branch of a repository called 'Git_Exp4'. The file content is as follows:

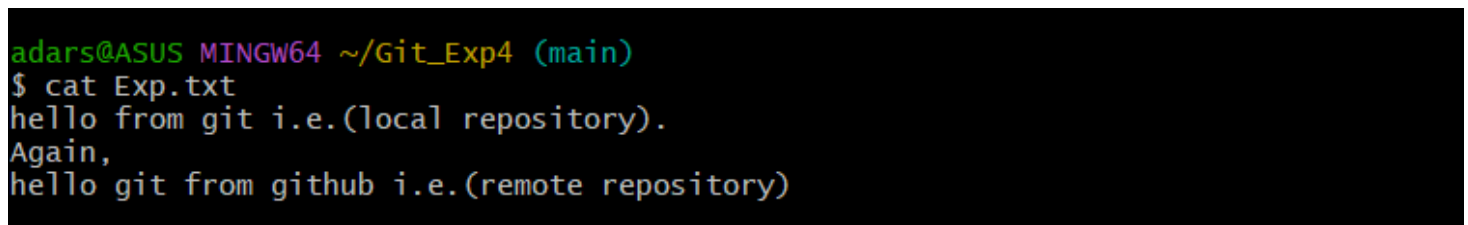
```
1 hello from git i.e.(local repository).
2 Again,
3 hello git from github i.e.(remote repository)
4
```

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.			