

Experiment -2.1

Install Git and creating repository.

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Branch: CSE(DevOps)

Semester: 4th

Subject Name: Git and GitHub

UID: 22BDO10033

Section/Group: 22BCD-1/A

Date of Performance: 31/01/24

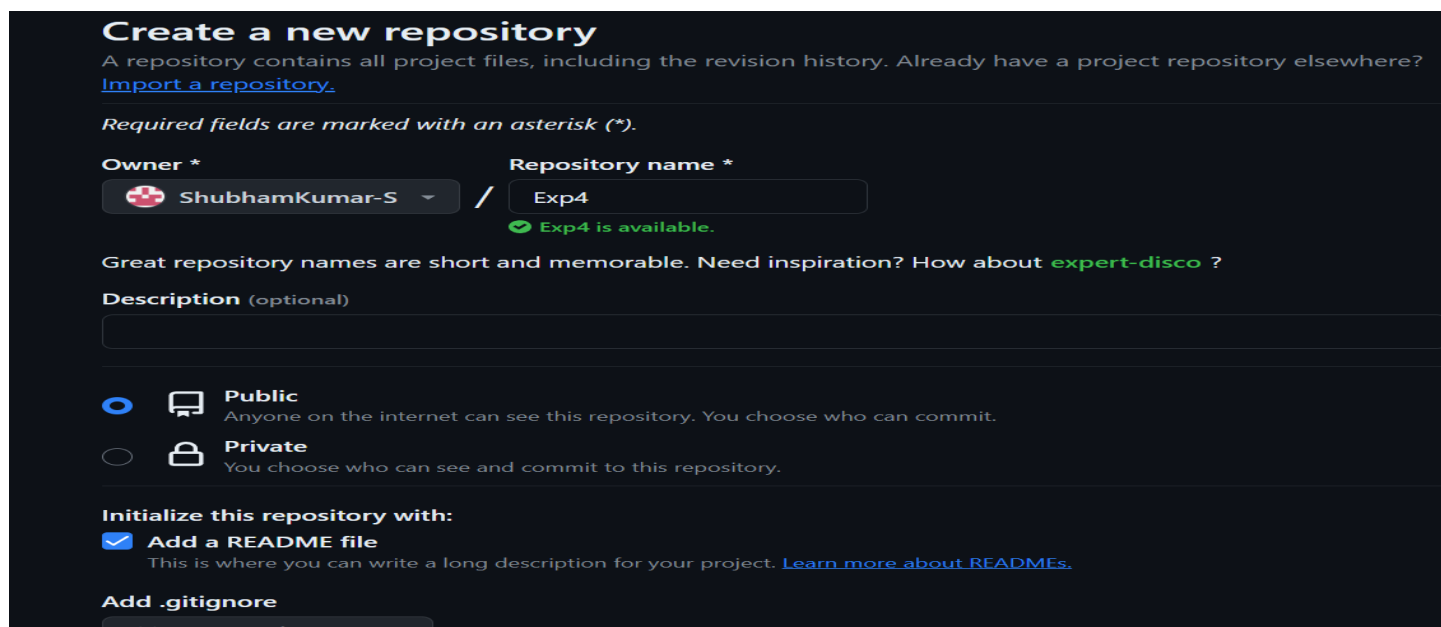
Subject Code: 22CHS-293

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

2. Task to be done: - Editing a file and committing



3. Steps for experiment/practical:

1. Create a new file: - Create a repository on GitHub named exp4 with ReadMe file, public and click create repository.



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 *  ShubhamKumar-S / **Repository name ***
 Exp4 is available.

Great repository names are short and memorable. Need inspiration? How about **expert-disco** ?

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.

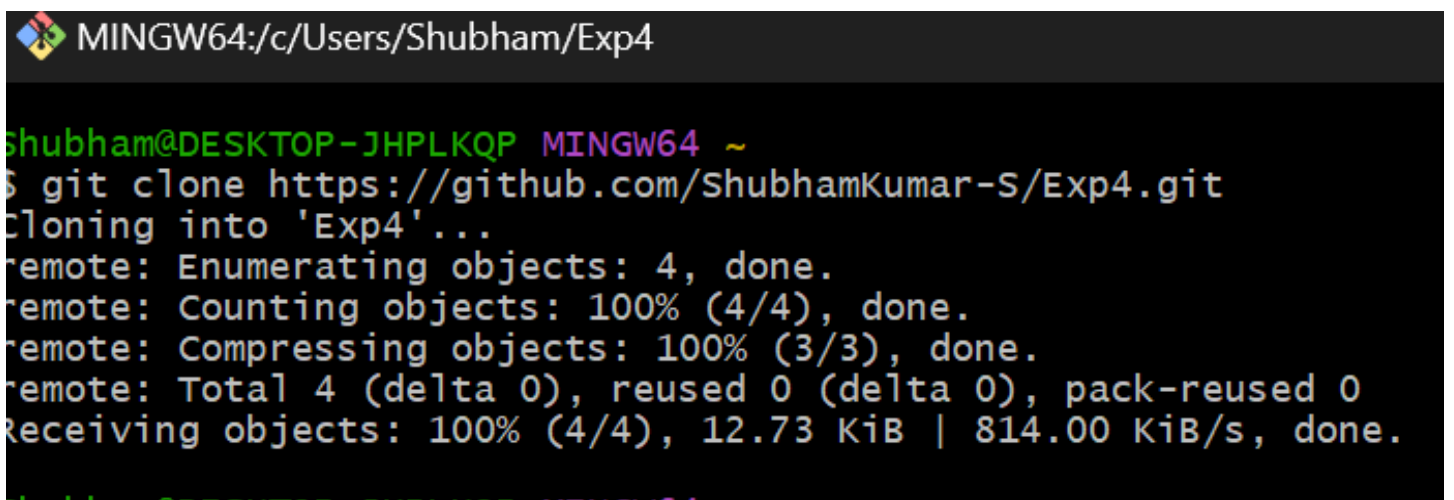
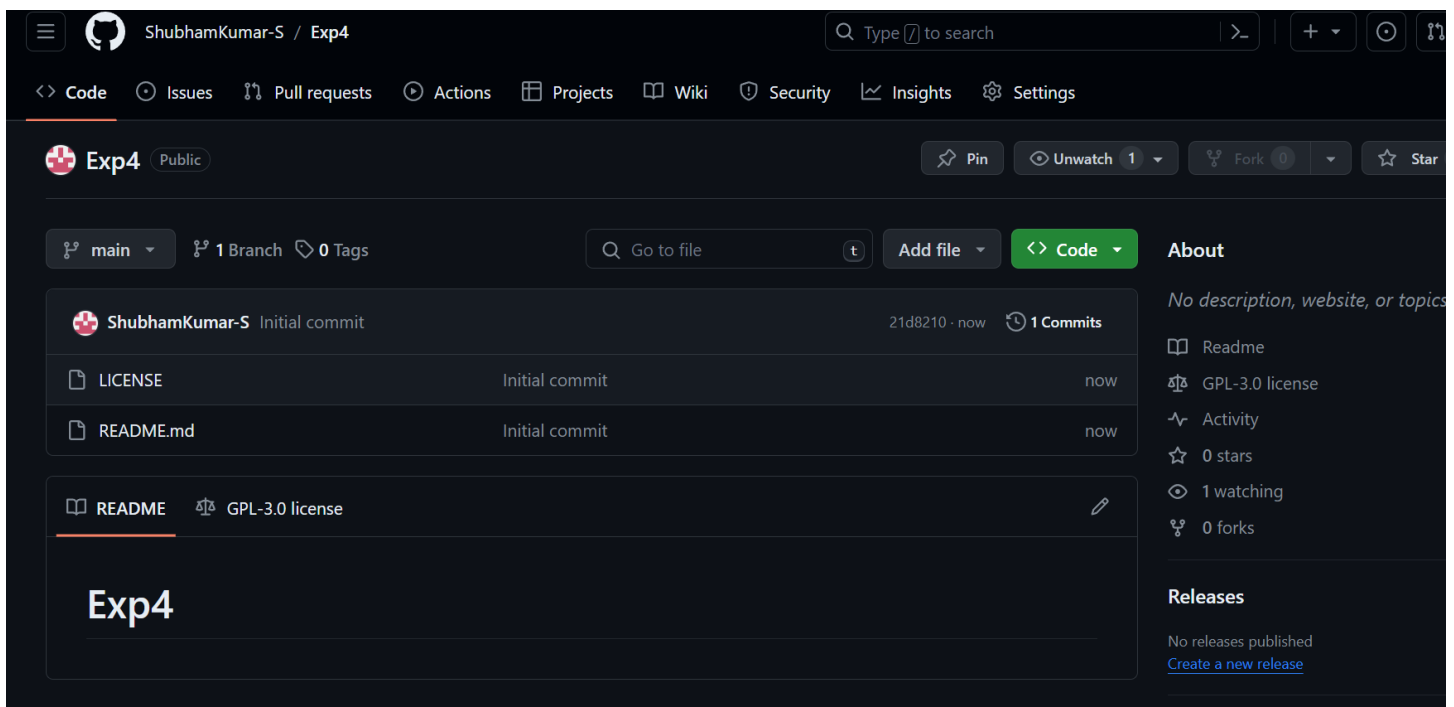
Initialize this repository with:
☒ **Add a README file**
This is where you can write a long description for your project. [Learn more about READMEs.](#)

Add .gitignore



2. Go to Git Bash and clone the repository to your local machine using:

git clone <-link->



3. Go to Exp4 repository using cd:

cd directory_name

```
shubham@DESKTOP-JHPLKQP MINGW64 ~  
$ cd Exp4  
  
shubham@DESKTOP-JHPLKQP MINGW64 ~/Exp4 (main)  
$ git add file.c  
fatal: pathspec 'file.c' did not match any files
```

4. Now, create a file file1.c using vi editor and

vi file_name

Press *I* key for inserting

Write:

This is git exp4

after writing press *esc* key to escape the insert mode and press *:wq* to save and quit.

5. Add and commit changes using:

git add file_name

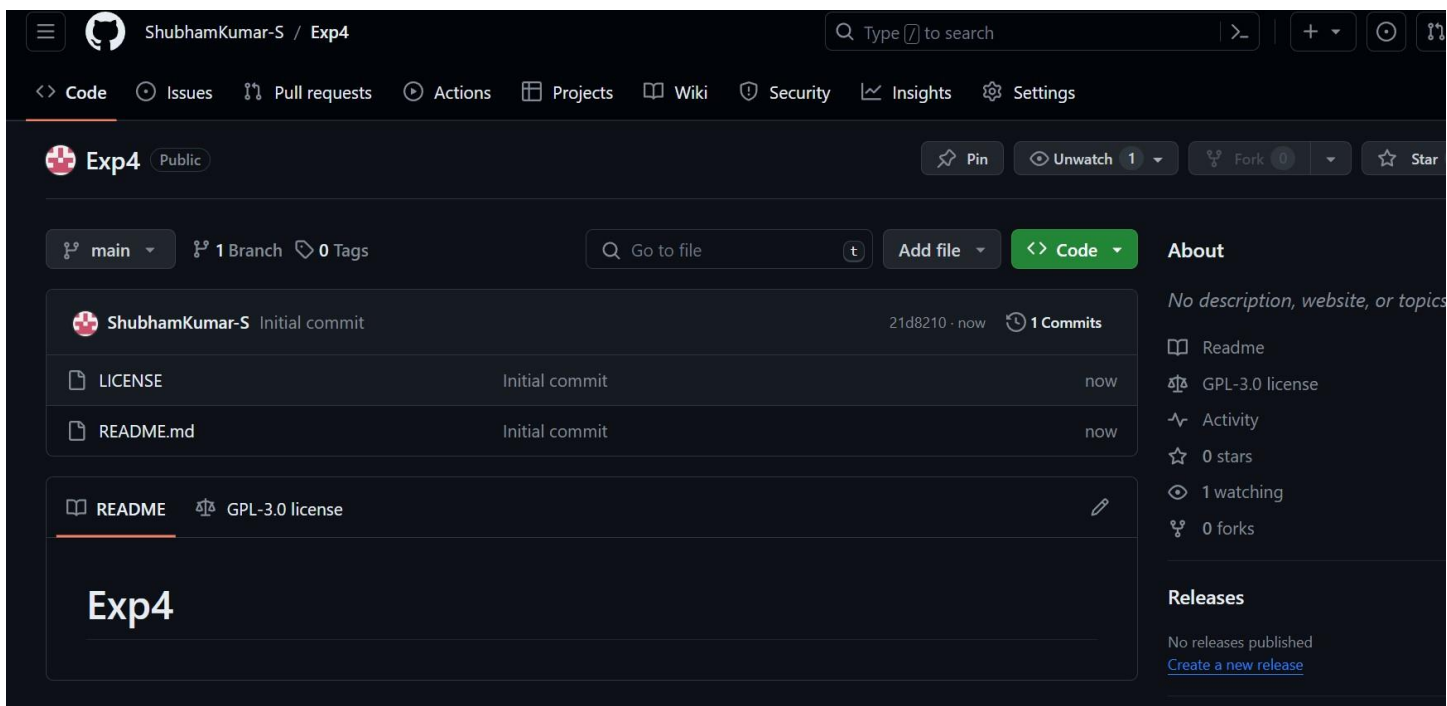
git add file1.c or git add .

git commit -m "commit message"

```
Shubham@DESKTOP-JHPLKQP MINGW64 ~/Exp4 (main)  
$ git commit -m "Added file.c"  
[main 30c3557] Added file.c  
1 file changed, 1 insertion(+)  
create mode 100644 file1.c
```

6. Let's push these changes over to our GitHub.

Before push



The screenshot shows a GitHub repository named 'Exp4' owned by 'ShubhamKumar-S'. The repository is public and has 1 branch (main) and 0 tags. It contains 1 commit (21d8210) with files LICENSE and README.md. The repository has 0 stars, 1 watcher, and 0 forks. The README file is visible, showing the title 'Exp4'. The repository is licensed under GPL-3.0.

After push



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```
hubham@DESKTOP-JHPLKQP MINGW64 ~/Exp4 (main)
git push origin master
error: src refspec master does not match any
error: failed to push some refs to 'https://github.com/ShubhamKumar-S/Exp4.git'

hubham@DESKTOP-JHPLKQP MINGW64 ~/Exp4 (main)
git push origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 327 bytes | 163.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/ShubhamKumar-S/Exp4.git
21d8210..30c3557 main -> main

hubham@DESKTOP-JHPLKQP MINGW64 ~/Exp4 (main)
git pull origin main
From https://github.com/ShubhamKumar-S/Exp4
* branch          main          -> FETCH_HEAD
Already up to date.

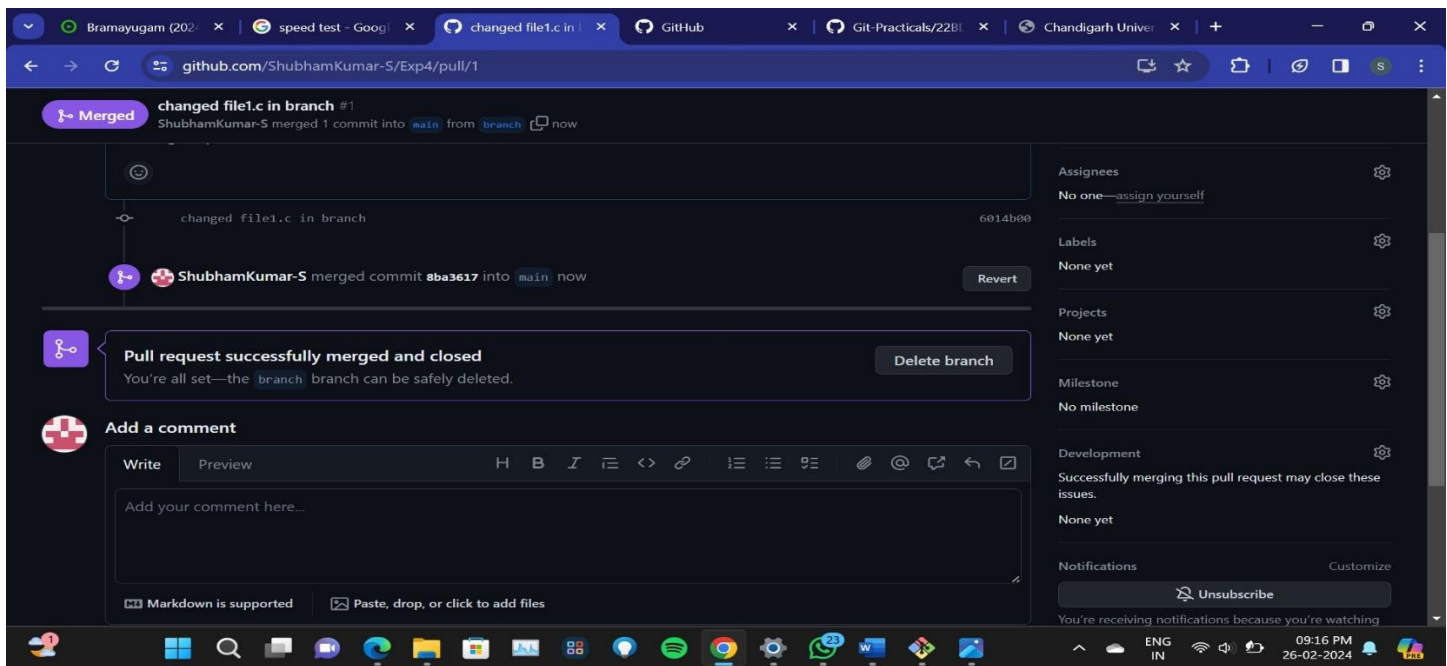
hubham@DESKTOP-JHPLKQP MINGW64 ~/Exp4 (main)
git checkout -b branch
Switched to a new branch 'branch'

hubham@DESKTOP-JHPLKQP MINGW64 ~/Exp4 (branch)
vi file1.c

hubham@DESKTOP-JHPLKQP MINGW64 ~/Exp4 (branch)
git add file1.c
```

The screenshot shows a web browser window with multiple tabs. The active tab is 'github.com/ShubhamKumar-S/Exp4'. The page displays the GitHub interface for a repository named 'Exp4' by user 'ShubhamKumar-S'. The repository is public and has 1 branch (main) and 0 tags. A recent commit is shown with the message 'branch had recent pushes 1 second ago'. The repository has 1 commit, 0 stars, 1 watching, and 0 forks. The repository is licensed under GPL-3.0 license. The page also shows the repository's README and a link to create a new release.

7. Lets make change over on our GitHub file1.c and pull it over to local



After pull

```
Shubham@DESKTOP-JHPLKQP MINGW64 ~/Exp4 (main)
$ git pull origin main
remote: Enumerating objects: 1, done.
remote: Counting objects: 100% (1/1), done.
remote: Total 1 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (1/1), 905 bytes | 50.00 KiB/s, done.
From https://github.com/ShubhamKumar-S/Exp4
* branch          main       -> FETCH_HEAD
   30c3557..8ba3617 main       -> origin/main
Updating 30c3557..8ba3617
Fast-forward
 file1.c | 1 +
 1 file changed, 1 insertion(+)

Shubham@DESKTOP-JHPLKQP MINGW64 ~/Exp4 (main)
$
```

We can see that our local file also changed.

Fetch will not change the local data as saw in last experiment so pull for the win.

4. Result/Output/Writing Summary:

In this experiment, I basically created a remote repository over GitHub and cloned it over to local machine. Then I created a file fil1.c locally , added, committed and pushed it over to the remote repository. Then made some changes over remote file and pulled it over to my local machine.

Learning outcomes (What I have learnt):

- 1 Learnt about cloning of repository.
2. Learnt about two stage commit – add and then commit.
3. Learnt about using vim editor to create and add data to file.
4. Learnt about pushing the changes over to the remote repository.
- 5.Learnt about pulling the changes to the local repository.

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.			