

Experiment 2

AIM: Setup Git and explore Commands related to Version Control System (VCS)

Step 1: Download from <https://git-scm.com>

Step 2: Configuration

```
git config --global user.name "hemanshijalu126463-prog"
```

```
git config --global user.email "hemanshi.jalu126463@marwdiuniversity"
```

Step 3:

```
C:\Users\Admin>git --version
```

```
git version 2.43.0.windows.1
```

```
C:\Users\Admin>git init
```

```
Reinitialized existing Git repository in C:/Users/Admin/.git/ C:\Users\Admin>mkdir ost
```

```
C:\Users\Admin>mkdir ost
```

```
A subdirectory or file ost already exists.
```

```
C:\Users\Admin>git init
```

```
Reinitialized existing Git repository in C:/Users/Admin/.git/ C:\Users\Admin>cd ost
```

```
C:\Users\Admin\ost>git init
```

```
Initialized empty Git repository in C:/Users/Admin/ost/.git/
```

```
C:\Users\Admin\ost>git status
```

```
On branch master No commits yet
```

```
nothing to commit (create/copy files and use "git add" to track)
```

```
C:\Users\Admin\ost>echo sample.txt sample.txt
```

```
C:\Users\Admin\ost>echo demo.py
```

```
demo.py
```

```
C:\Users\Admin\ost>git status
```

```
On branch master No commits yet
```

```
nothing to commit (create/copy files and use "git add" to track)
```

```
C:\Users\Admin\ost>dir Volume in drive C is OS
```

```
Volume Serial Number is E2F6-8AB0
```

```
Directory of C:\Users\Admin\ost 13-Feb-26 09:30 AM <DIR> .
```

```
13-Feb-26 08:22 f1M <DIR> ..
```

```
0 File(s) 0 bytes
```

```
2 Dir(s) 17,472,352,256 bytes free
```

```
C:\Users\Admin\ost>echo sample.txt
```

```
sample.txt
```

```
C:\Users\Admin\ost>dir Volume in drive C is OS
```

```
Volume Serial Number is E2F6-8AB0
```

```
Directory of C:\Users\Admin\ost 13-Feb-26 09:30 AM <DIR> .
```

13-Fed-26 09:30 AM <DIR> ..

0 File(s) 0 bytes

2 Dir(s) 17,472,425,984 bytes free

C:\Users\Admin\ost>echo Hello> sample.txt

C:\Users\Admin\ost>dir

Volume in drive C is OS

Volume Serial Number is E2F6-8AB0

Directory of C:\Users\Admin\ost 13-Fed-26 09:38 AM <DIR> .

13-Fed-26 09:38 AM <DIR> ..

13-Fed-26 09:38 AM 7 sample.txt

1 File(s) 7 bytes

2 Dir(s) 17,471,066,112 bytes free

C:\Users\Admin\ost>type sample.txt

Hello

C:\Users\Admin\ost>git commit -m "Initial Commit"

On branch master Initial commit

Untracked files:

(use "git add <file>..." to include in what will be committed) sample.txt

nothing added to commit but untracked files present (use "git add" to track)

C:\Users\Admin\ost>git config --global init.defaultBranch main C:\Users\Admin\ost>git commit -m "Initial Commit"

On branch master Initial commit

Untracked files:

(use "git add <file>..." to include in what will be committed) sample.txt

nothing added to commit but untracked files present (use "git add" to track)

C:\Users\Admin\ost>git add sample.txt

C:\Users\Admin\ost>git commit -m "Initial Commit"

[master (root-commit) df439d9] Initial Commit 1 file changed, 1 insertion(+)
create mode 100644 sample.txt

C:\Users\Admin\ost>git branch

*master

C:\Users\Admin\ost>git branch -m master main

C:\Users\Admin\ost>git branch

*main

C:\Users\Admin\ost>git checkout main

Already on 'main'

C:\Users\Admin\ost>git checkout -b dev

Switched to a new branch 'dev'

C:\Users\Admin\ost>echo Hello from dev>> sample.txt

C:\Users\Admin\ost>git add sample.txt

```
C:\Users\Admin\ost>git commit -m "Update in dev"
[dev de8fe00] Update in dev 1 file changed, 1 insertion(+)
```

```
C:\Users\Admin\ost>git checkout main Switched to branch 'main'
```

```
C:\Users\Admin\ost>git merge dev
Updating df439d9..de8fe00 Fast-forward
sample.txt | 1 +
1 file changed, 1 insertion(+)
```

```
C:\Users\Admin\ost>dir Volume in drive C is OS
Volume Serial Number is E2F6-8AB0
```

```
Directory of C:\Users\Admin\ost 13-Fed-2609:48 AM    <DIR>.
13-Fed-26 09:44 AM <DIR>..
13-Fed-26 09:48 AM 23 sample.txt
           1 File(s)      23 bytes
           2 Dir(s) 17,468,366,848 bytes free
```

```
C:\Users\Admin\ost>type sample.txt
Hello
Hello from dev
```

```
C:\Users\Admin\ost>git remote -v
```

```
C:\Users\Admin\ost>git remote add origin https://github.com/hemanshi jalu126463-prog/OST.git
```

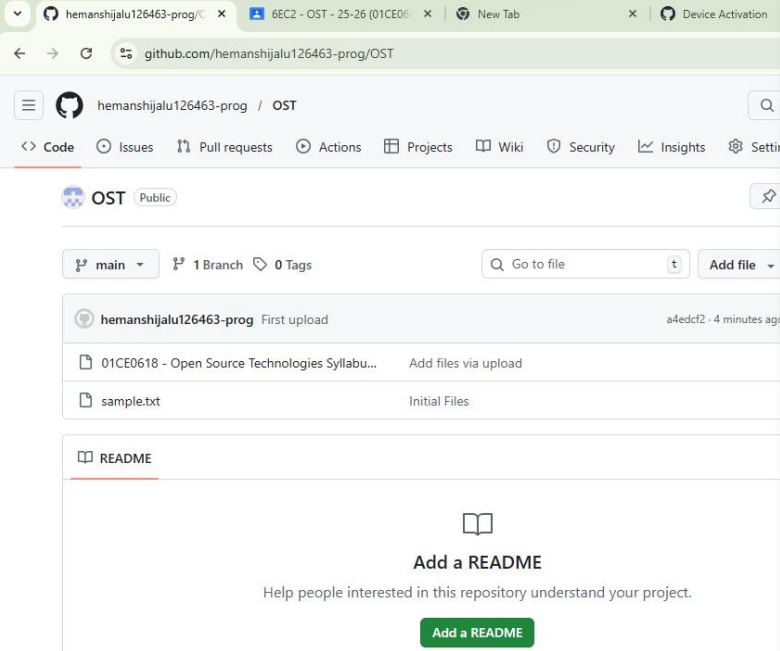
```
C:\Users\Admin\ost>git remote -v
origin https://github.com/hemanshi jalu126463-prog/OST.git (fetch) origin
https://github.com/hemanshi jalu126463-prog/OST.git (push)
```

```
C:\Users\Admin\ost>git push -u origin main
remote: Invalid username or token. flassword authentication is not supported for Git operations.

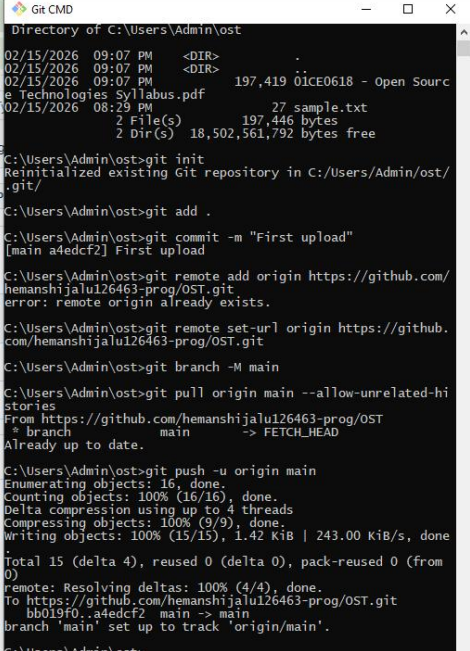
fatal: Authentication failed for 'https://github.com/hemanshi jalu126463-prog/OST.git/'
```

```
C:\Users\Admin\ost>git push -u origin main
info: please complete authentication in your browser... Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 16 threads Compressing objects: 100% (2/2), done.
Writing objects: 100% (6/6), 452 bytes | 226.00 KiB/s, done. Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/hemanshi jalu126463-prog/OST.git
* [new branch] main -> main
branch 'main' set up to track 'origin/main'.
```

Output:



The screenshot shows the GitHub repository page for `hemanshijalu126463-prog/OST`. The repository is public and has one branch, `main`. The file list includes `01CE0618 - Open Source Technologies Syllabus.pdf` and `sample.txt`. A button to "Add a README" is visible at the bottom of the repository page.



```

Directory of C:\Users\Admin\ost
02/15/2026 09:07 PM <DIR> .
02/15/2026 09:07 PM <DIR> ..
02/15/2026 09:07 PM 197,419 01CE0618 - Open Source Technologies Syllabus.pdf
02/15/2026 08:29 PM 27 sample.txt
                2 File(s) 197,446 bytes
                2 Dir(s) 18,502,561,792 bytes free

C:\Users\Admin\ost>git init
Reinitialized existing Git repository in C:/Users/Admin/ost/.git/

C:\Users\Admin\ost>git add .
C:\Users\Admin\ost>git commit -m "First upload"
[main a4edcf2] First upload

C:\Users\Admin\ost>git remote add origin https://github.com/hemanshijalu126463-prog/OST.git
error: remote origin already exists.

C:\Users\Admin\ost>git remote set-url origin https://github.com/hemanshijalu126463-prog/OST.git

C:\Users\Admin\ost>git branch -M main

C:\Users\Admin\ost>git pull origin main --allow-unrelated-histories
From https://github.com/hemanshijalu126463-prog/OST
 * branch            main       -> FETCH_HEAD
Already up to date.

C:\Users\Admin\ost>git push -u origin main
Enumerating objects: 16, done.
Counting objects: 100% (16/16), done.
Delta compression using up to 4 threads
Compressing objects: 100% (9/9), done.
Writing objects: 100% (15/15), 1.42 KiB | 243.00 KiB/s, done
Total 15 (delta 4), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (4/4), done.
To https://github.com/hemanshijalu126463-prog/OST.git
   bb019f0..a4edcf2  main -> main
branch 'main' set up to track 'origin/main'.

C:\Users\Admin\ost>
    
```