

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 "hemansi.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\Ad\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 fLM <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-Feb-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-Feb-26 09:38 AM      <DIR> .
13-Feb-26 09:38 AM <DIR> ..
13-Feb-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\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-Feb-26 09:48 AM <DIR>.
13-Feb-26 09:44 AM <DIR>..
13-Feb-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
```

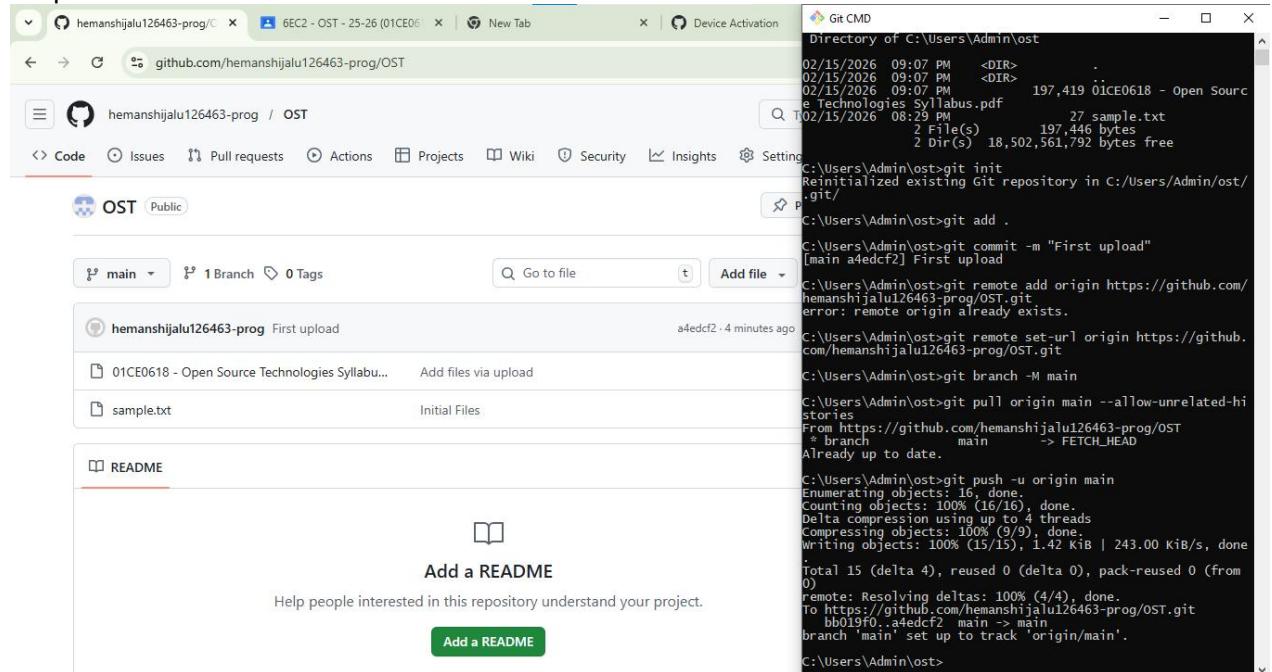
```
C:\Users\Admin\ost>git remote -v
```

```
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/hemanshijalu126463-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. Password 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 a GitHub repository named 'hemanshijalu126463-prog/OST'. The repository has 1 branch and 0 tags. It contains files: '01CE0618 - Open Source Technologies Syllabus.pdf' (197,419 bytes), 'sample.txt' (27 bytes), and 'Initial Files'. There is a 'README' file with a 'Add a README' button.

On the right, a 'Git CMD' window shows the following terminal session:

```

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
102/15/2026 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
Initialized 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>
```