



Experiment No. 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 "prashantvala"
```

```
git config --global user.email "prashantvala40@gmail.com"
```

Step 3:

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

```
git version 2.53.0.windows.1
```

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

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

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

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

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

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

```
Reinitialized existing Git repository in C:/Users/prash/.git/
```

```
C:\Users\prash>cd ost
```

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

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

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

```
On branch master
```

```
No commits yet
```

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

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

```
sample.txt
```

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

```
demo.py
```

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

```
On branch master
```

```
No commits yet
```

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

```
C:\Users\prash\ost>dir
```

```
Volume in drive C is OS
```

```
Volume Serial Number is 60CF-E8AF
```

```
Directory of C:\Users\prash\ost
```

```
17-02-2026  22:07    <DIR>          .
17-02-2026  22:05    <DIR>          ..
               0 File(s)                0 bytes
               2 Dir(s)  406,771,421,184 bytes free
```

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

```
sample.txt
```

```
C:\Users\prash\ost>dir
```

```
Volume in drive C is OS
```

```
Volume Serial Number is 60CF-E8AF
```

```
Directory of C:\Users\prash\ost
```

```
17-02-2026  22:07    <DIR>          .
17-02-2026  22:05    <DIR>          ..
               0 File(s)                0 bytes
               2 Dir(s)  406,771,486,720 bytes free
```

```
C:\Users\prash\ost>echo Hello> sample.txt
```

```
C:\Users\prash\ost>dir
```

```
Volume in drive C is OS
```

```
Volume Serial Number is 60CF-E8AF
```

```
Directory of C:\Users\prash\ost
```

```
17-02-2026  22:11    <DIR>          .
17-02-2026  22:05    <DIR>          ..
17-02-2026  22:11                7 sample.txt
               1 File(s)                7 bytes
               2 Dir(s)  406,771,376,128 bytes free
```

```
C:\Users\prash\ost>type sample.txt
```

```
Hello
```

```
C:\Users\prash\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\prash\ost>**git config --global init.defaultBranch main**

C:\Users\prash\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\prash\ost>**git add sample.txt**

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

[master (root-commit) 66bbe46] Initial Commit

1 file changed, 1 insertion(+)

create mode 100644 sample.txt

C:\Users\prash\ost>**git branch**

* master

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

C:\Users\prash\ost>**git branch**

* main

C:\Users\prash\ost>**git checkout main**

Already on 'main'

C:\Users\prash\ost>**git checkout -b dev**

Switched to a new branch 'dev'

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

C:\Users\prash\ost>**git add .**

C:\Users\prash\ost>**git commit -m "Update in dev"**

[dev f359ad0] Update in dev

1 file changed, 1 insertion(+)

C:\Users\prash\ost>**git checkout main**

Switched to branch 'main'

C:\Users\prash\ost>**git merge dev**

Updating 66bbe46..f359ad0

Fast-forward

sample.txt | 1 +

1 file changed, 1 insertion(+)

```
C:\Users\prash\ost>dir
```

```
Volume in drive C is OS
```

```
Volume Serial Number is 60CF-E8AF
```

```
Directory of C:\Users\prash\ost
```

```
17-02-2026  22:21    <DIR>          .
17-02-2026  22:19    <DIR>          ..
17-02-2026  22:21                23 sample.txt
               1 File(s)                23 bytes
               2 Dir(s)  406,768,168,960 bytes free
```

```
C:\Users\prash\ost>type sample.txt
```

```
Hello
```

```
Hello from dev
```

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

```
C:\Users\prash\ost>git remote add origin https://github.com/prashantvala/OST_Prashant_Vala
```

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

```
origin https://github.com/prashantvala/OST_Prashant_Vala (fetch)
```

```
origin https://github.com/prashantvala/OST_Prashant_Vala (push)
```

```
C:\Users\prash\ost>git push -u origin main
```

```
info: please complete authentication in your browser...
```

```
To https://github.com/prashantvala/OST_Prashant_Vala
```

```
! [rejected]        main -> main (fetch first)
```

```
error: failed to push some refs to 'https://github.com/prashantvala/OST_Prashant_Vala'
```

```
hint: Updates were rejected because the remote contains work that you do not
```

```
hint: have locally. This is usually caused by another repository pushing to
```

```
hint: the same ref. If you want to integrate the remote changes, use
```

```
hint: 'git pull' before pushing again.
```

```
hint: See the 'Note about fast-forwards' in 'git push --help' for details.
```

```
C:\Users\prash\ost>git pull origin main --allow-unrelated-histories
```

```
remote: Enumerating objects: 17, done.
```

```
remote: Counting objects: 100% (17/17), done.
```

```
remote: Compressing objects: 100% (11/11), done.
```

```
remote: Total 17 (delta 2), reused 7 (delta 2), pack-reused 0 (from 0)
```

```
Unpacking objects: 100% (17/17), 1.35 MiB | 3.72 MiB/s, done.
```

```
From https://github.com/prashantvala/OST_Prashant_Vala
```

```
* branch          main          -> FETCH_HEAD
```

```
* [new branch]     main          -> origin/main
```

```
Merge made by the 'ort' strategy.
```

```
Experiment-1.docx | Bin 0 -> 19510 bytes
```

```
Experiment-1.pdf  | Bin 0 -> 116067 bytes
```

```
OST_Syllabus.pdf  | Bin 0 -> 1311366 bytes
```

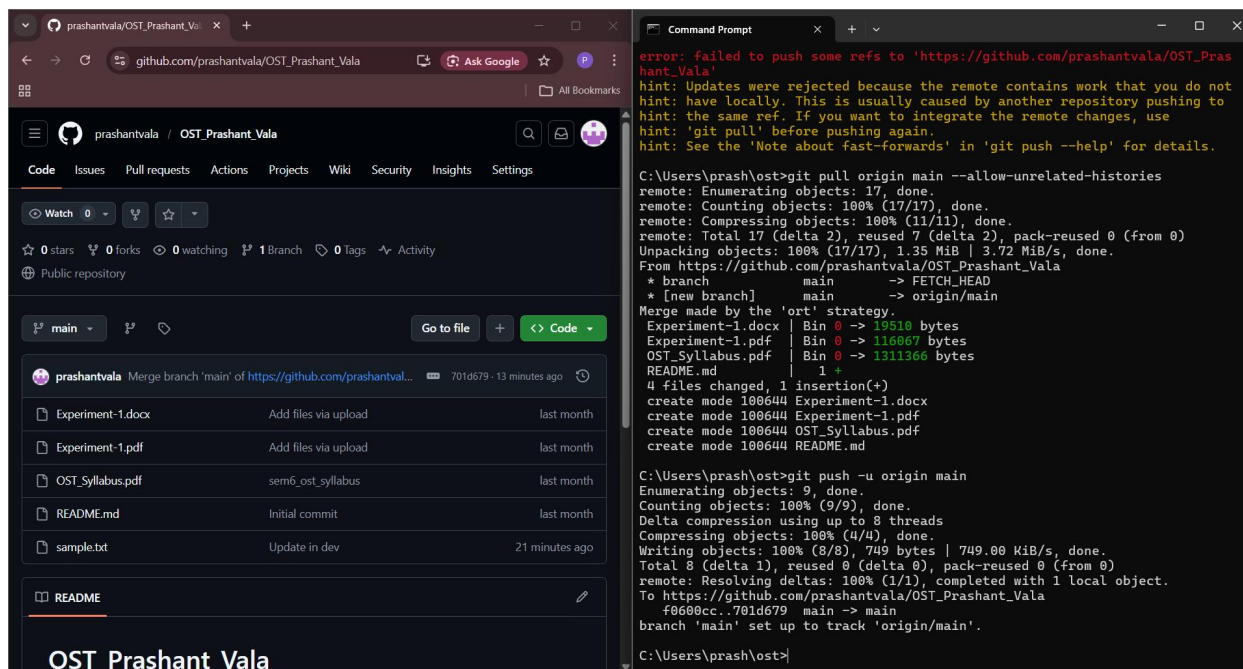
```
README.md         | 1 +
```

```
4 files changed, 1 insertion(+)
```

```
create mode 100644 Experiment-1.docx
```

```
create mode 100644 Experiment-1.pdf
create mode 100644 OST_Syllabus.pdf
create mode 100644 README.md
```

```
C:\Users\prash\ost>git push -u origin main
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (8/8), 749 bytes | 749.00 KiB/s, done.
Total 8 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/prashantvala/OST_Prashant_Vala
 f0600cc..701d679  main -> main
branch 'main' set up to track 'origin/main'.
```



The screenshot displays a GitHub repository named 'OST_Prashant_Vala' by user 'prashantvala'. The repository has 0 stars, 0 forks, and 0 watchers. It contains a single branch 'main' with 1 commit. The file list includes 'Experiment-1.docx', 'Experiment-1.pdf', 'OST_Syllabus.pdf', 'README.md', and 'sample.txt'. The 'README' file is selected, showing its content. To the right, a terminal window shows the following sequence of commands and outputs:

```
error: failed to push some refs to 'https://github.com/prashantvala/OST_Prashant_Vala'
hint: Updates were rejected because the remote contains work that you do not
hint: have locally. This is usually caused by another repository pushing to
hint: the same ref. If you want to integrate the remote changes, use
hint: 'git pull' before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.

C:\Users\prash\ost>git pull origin main --allow-unrelated-histories
remote: Enumerating objects: 17, done.
remote: Counting objects: 100% (17/17), done.
remote: Compressing objects: 100% (11/11), done.
remote: Total 17 (delta 2), reused 7 (delta 2), pack-reused 0 (from 0)
Unpacking objects: 100% (17/17), 1.35 MiB | 3.72 MiB/s, done.
From https://github.com/prashantvala/OST_Prashant_Vala
 * branch            main       -> FETCH_HEAD
 * [new branch]      main       -> origin/main
Merge made by the 'ort' strategy.
 Experiment-1.docx | Bin 0 -> 19510 bytes
 Experiment-1.pdf  | Bin 0 -> 116067 bytes
 OST_Syllabus.pdf | Bin 0 -> 1311366 bytes
 README.md        | 1 +
 4 files changed, 1 insertion(+)
 create mode 100644 Experiment-1.docx
 create mode 100644 Experiment-1.pdf
 create mode 100644 OST_Syllabus.pdf
 create mode 100644 README.md

C:\Users\prash\ost>git push -u origin main
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (8/8), 749 bytes | 749.00 KiB/s, done.
Total 8 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/prashantvala/OST_Prashant_Vala
 f0600cc..701d679  main -> main
branch 'main' set up to track 'origin/main'.

C:\Users\prash\ost>
```