

Experiment No. 2

Title: Setup Git and Explore Commands Related to Version Control System (VCS)

```
student@MC309-191 MINGW64 /c
$ git config --global user.name "Tirth Bhut"
```

```
student@MC309-191 MINGW64 /c
$ git config --global user.email "tirthbhut07@gmail.com"
```

```
student@MC309-191 MINGW64 /c
$ git --version
git version 2.52.0.windows.1
```

```
student@MC309-191 MINGW64 /c
$ git init
Initialized empty Git repository in C:/./git/
```

```
student@MC309-191 MINGW64 /c
$ mkdir ost
```

```
student@MC309-191 MINGW64 /c
$ mkdir ost
mkdir: cannot create directory 'ost': File exists
```

```
student@MC309-191 MINGW64 /c
$ git init
Reinitialized existing Git repository in C:/./git/
```

```
student@MC309-191 MINGW64 /c
$ cd ost
```

```
student@MC309-191 MINGW64 /c/ost
$ git init
Initialized empty Git repository in C:/ost/.git/
```

```
student@MC309-191 MINGW64 /c/ost (master)
$ git status
On branch master
```

No commits yet

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

```
student@MC309-191 MINGW64 /c/ost (master)
$ echo sample.txt
sample.txt
```

```
student@MC309-191 MINGW64 /c/ost (master)
$ echo demo.py
demo.py
```

```
student@MC309-191 MINGW64 /c/ost (master)
$ git status
On branch master
```

No commits yet

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

```
student@MC309-191 MINGW64 /c/ost (master)
$ dir
```

```
student@MC309-191 MINGW64 /c/ost (master)
$ echo sample.txt
sample.txt
```

```
student@MC309-191 MINGW64 /c/ost (master)
$ dir
```

```
student@MC309-191 MINGW64 /c/ost (master)
$ echo Hello> sample.txt
```

```
student@MC309-191 MINGW64 /c/ost (master)
$ dir
sample.txt
```

```
student@MC309-191 MINGW64 /c/ost (master)
$ cat sample.txt
Hello
```

```
student@MC309-191 MINGW64 /c/ost (master)
$ 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)

```
student@MC309-191 MINGW64 /c/ost (master)
$ git config --global init.defaultBranch main
```

```
student@MC309-191 MINGW64 /c/ost (master)
$ 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)

```
student@MC309-191 MINGW64 /c/ost (master)
$ git add sample.txt
warning: in the working copy of 'sample.txt', LF will be replaced by CRLF the next time Git
touches
it
```

```
student@MC309-191 MINGW64 /c/ost (master)
$ git commit -m "Initial Commit"
[master (root-commit) 739b442] Initial Commit
1 file changed, 1 insertion(+)
create mode 100644 sample.txt
```

```
student@MC309-191 MINGW64 /c/ost (master)
$ git branch
* master
```

```
student@MC309-191 MINGW64 /c/ost (master)
$ git branch -m master main
```

```
student@MC309-191 MINGW64 /c/ost (main)
$ git branch
* main
```

```
student@MC309-191 MINGW64 /c/ost (main)
$ git checkout main
Already on 'main'
```

```
student@MC309-191 MINGW64 /c/ost (main)
$ git checkout -b dev
Switched to a new branch 'dev'
```

```
student@MC309-191 MINGW64 /c/ost (dev)
$ echo Hello from dev>> sample.txt
```

```
student@MC309-191 MINGW64 /c/ost (dev)
$ git add
Nothing specified, nothing added.
hint: Maybe you wanted to say 'git add .'?
hint: Disable this message with "git config set advice.addEmptyPathsSpec false"
```

```
student@MC309-191 MINGW64 /c/ost (dev)
$ git add.
git: 'add.' is not a git command. See 'git --help'.
```

The most similar command is
add

```
student@MC309-191 MINGW64 /c/ost (dev)
$ git commit -m "Update in dev"
On branch dev
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
    modified:   sample.txt
```

no changes added to commit (use "git add" and/or "git commit -a")

```
student@MC309-191 MINGW64 /c/ost (dev)
$ git add .
warning: in the working copy of 'sample.txt', LF will be replaced by CRLF the next time Git
touches
it
```

```
student@MC309-191 MINGW64 /c/ost (dev)
$ git commit -m "Update in dev"
[dev 95837a9] Update in dev
1 file changed, 1 insertion(+)
```

```
student@MC309-191 MINGW64 /c/ost (dev)
$ git checkout main
Switched to branch 'main'
```

```
student@MC309-191 MINGW64 /c/ost (main)
$ git merge dev
Updating 739b442..95837a9
Fast-forward
 sample.txt | 1 +
1 file changed, 1 insertion(+)
```

```
student@MC309-191 MINGW64 /c/ost (main)
$ dir
sample.txt
```

```
student@MC309-191 MINGW64 /c/ost (main)
$ cat sample.txt
Hello
Hello from dev
```

```
student@MC309-191 MINGW64 /c/ost (main)
$ git remote -v
```

```
student@MC309-191 MINGW64 /c/ost (main)
$ git remote add origin https://github.com/TirthBhut99/OST-TirthBhut093.git
Merge branch 'main' of https://github.com/TirthBhut99/OST-TirthBhut093
```

```
remote: Enumerating objects: 10, done.
remote: Counting objects: 100% (10/10), done.
remote: Compressing objects: 100% (8/8), done.
remote: Total 10 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (10/10), 477.48 KiB | 953.00 KiB/s, done.
From https://github.com/TirthBhut99/OST-TirthBhut093
 * branch      main      -> FETCH_HEAD
 * [new branch] main      -> origin/main
Merge made by the 'ort' strategy.
 01CE0618 - Open Source Technologies Syllabus.pdf | Bin 0 -> 197419 bytes
 Experiment-1 (OST).docx                        | Bin 0 -> 220337 bytes
 Experiment-1 (OST).pdf                          | Bin 0 -> 125037 bytes
 README.md                                       | 2 ++
4 files changed, 2 insertions(+)
create mode 100644 01CE0618 - Open Source Technologies Syllabus.pdf
create mode 100644 Experiment-1 (OST).docx
```

```
create mode 100644 Experiment-1 (OST).pdf
create mode 100644 README.md
```

```
student@MC309-191 MINGW64 /c/ost (main)
$
```

```
student@MC309-191 MINGW64 /c/ost (main)
$
```

```
student@MC309-191 MINGW64 /c/ost (main)
$ git push -u origin main
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 6 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (8/8), 750 bytes | 750.00 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/TirthBhut99/OST-TirthBhut093.git
   8c4add8..128058a  main -> main
branch 'main' set up to track 'origin/main'.
```

```
student@MC309-191 MINGW64 /c/ost (main)
$
```

The screenshot shows the GitHub interface for the repository **OST-TirthBhut093**, which is public. The repository has 1 branch (main) and 0 tags. The commit history shows a merge of branch 'main' from the same repository, with commit hash 128058a, made 14 minutes ago. The commit message is "Merge branch 'main' of https://github.com/TirthBhut99/OST-TirthBhut093". The commit is linked to 6 other commits. The file list shows the following files and their commit history:

File Name	Commit Message	Commit Time
01CE0618 - Open Source Technologies Syllabu...	Add files via upload	last week
Experiment-1 (OST).docx	Add files via upload	last week
Experiment-1 (OST).pdf	Add files via upload	last week
README.md	Initial commit	last week
sample.txt	Update in dev	21 minutes ago

```
student@MC309-191 MINGW64 /c/ost (main)
$ git push -u origin main
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 6 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (8/8), 750 bytes | 750.00 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/TirthBhut99/OST-TirthBhut093.git
   8c4add8..128058a  main -> main
branch 'main' set up to track 'origin/main'.

student@MC309-191 MINGW64 /c/ost (main)
$ |
```