Experiment No. 2
Title: Setup Git and Explore Commands Related to Version Control System (VCS)

student@MC309-192 MINGW64 ~
$ cd /c/

student@MC309-192 MINGW64 /c
$ echo $HOME
/z/

student@MC309-192 MINGW64 /c
$ export HOME=/c/Users/student

student@MC309-192 MINGW64 /c
$ git config --global user.name "Pratham Gajra"
git config --global user.email "gajrapratham15@email.com"

student@MC309-192 MINGW64 /c
$ C:\Users\ravik.RAVIKUMAR>git --version
git version 2.43.0.windows.1
bash: git: Operation not permitted
git version 2.52.0.windows.1

student@MC309-192 MINGW64 /c
$ git --version
git version 2.52.0.windows.1

student@MC309-192 MINGW64 /c
$ git init
Initialized empty Git repository in C:/.git/

student@MC309-192 MINGW64 /c
$ mkdir ost

student@MC309-192 MINGW64 /c
$ mkdir ost
mkdir: cannot create directory 'ost': File exists

student@MC309-192 MINGW64 /c
$ git init
Reinitialized existing Git repository in C:/.git/

student@MC309-192 MINGW64 /c

```
$ cd ost

student@MC309-192 MINGW64 /c/ost
$ git init
Initialized empty Git repository in C:/ost/.git/

student@MC309-192 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@MC309-192 MINGW64 /c/ost (master)
$ echo sample.txt
sample.txt

student@MC309-192 MINGW64 /c/ost (master)
$ echo demo.py
demo.py

student@MC309-192 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@MC309-192 MINGW64 /c/ost (master)
$ dir

student@MC309-192 MINGW64 /c/ost (master)
$ echo sample.txt
sample.txt

student@MC309-192 MINGW64 /c/ost (master)
$ dir

student@MC309-192 MINGW64 /c/ost (master)
$ echo Hello> sample.txt

student@MC309-192 MINGW64 /c/ost (master)
```

```
$ dir
sample.txt

student@MC309-192 MINGW64 /c/ost (master)
$ type sample.txt
bash: type: sample.txt: not found

student@MC309-192 MINGW64 /c/ost (master)
$ cat sample.txt
Hello

student@MC309-192 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@MC309-192 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@MC309-192 MINGW64 /c/ost (master)
$ git add sample.txt
warning: in the working copy of 'sample.txt', LF will be replaced by CRLF the ne
xt time Git touches it

student@MC309-192 MINGW64 /c/ost (master)
$ git commit -m "Initial Commit"
[master (root-commit) 37e23f8] Initial Commit
 1 file changed, 1 insertion(+)
```

create mode 100644 sample.txt

student@MC309-192 MINGW64 /c/ost (master)
$ git branch
* master

student@MC309-192 MINGW64 /c/ost (master)
$ git branch -m master main

student@MC309-192 MINGW64 /c/ost (main)
$ git branch
* main

student@MC309-192 MINGW64 /c/ost (main)
$ git checkout main
Already on 'main'

student@MC309-192 MINGW64 /c/ost (main)
$ git checkout -b dev
Switched to a new branch 'dev'

student@MC309-192 MINGW64 /c/ost (dev)
$ echo Hello from dev>> sample.txt

student@MC309-192 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.addEmptyPathspec false"

student@MC309-192 MINGW64 /c/ost (dev)
$ git add .
warning: in the working copy of 'sample.txt', LF will be replaced by CRLF the ne
xt time Git touches it

student@MC309-192 MINGW64 /c/ost (dev)
$ git commit -m "Update in dev"
[dev 75356ba] Update in dev
 1 file changed, 1 insertion(+)

student@MC309-192 MINGW64 /c/ost (dev)
$ git merge dev
Already up to date.

```
student@MC309-192 MINGW64 /c/ost (dev)
$ dir
sample.txt

student@MC309-192 MINGW64 /c/ost (dev)
$ type sample.txt
bash: type: sample.txt: not found

student@MC309-192 MINGW64 /c/ost (dev)
$ cat sample.txt
Hello
Hello from dev

student@MC309-192 MINGW64 /c/ost (dev)
$ git remote -v

student@MC309-192 MINGW64 /c/ost (dev)
$ git remote add origin https://github.com/Pratham20695/OST-PrathamGajra106.git

student@MC309-192 MINGW64 /c/ost (dev)
$ git remote -v
origin  https://github.com/Pratham20695/OST-PrathamGajra106.git (fetch)
origin  https://github.com/Pratham20695/OST-PrathamGajra106.git (push)

student@MC309-192 MINGW64 /c/ost (dev)
$ git push -u origin main
fatal: User cancelled dialog.
error: unable to read askpass response from 'C:/Users/student/AppData/Local/Prog
rams/Git/mingw64/bin/git-askpass.exe'
Username for 'https://github.com':
remote: No anonymous write access.
fatal: Authentication failed for 'https://github.com/Pratham20695/OST-PrathamGaj
ra106.git/'

student@MC309-192 MINGW64 /c/ost (dev)
$

student@MC309-192 MINGW64 /c/ost (dev)
$

student@MC309-192 MINGW64 /c/ost (dev)
$ git push -u origin main
info: please complete authentication in your browser...
To https://github.com/Pratham20695/OST-PrathamGajra106.git
```

```
 ! [rejected]        main -> main (fetch first)
error: failed to push some refs to 'https://github.com/Pratham20695/OST-PrathamG
ajra106.git'
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.

student@MC309-192 MINGW64 /c/ost (dev)
$ git push -u origin main
To https://github.com/Pratham20695/OST-PrathamGajra106.git
 ! [rejected]        main -> main (fetch first)
error: failed to push some refs to 'https://github.com/Pratham20695/OST-PrathamG
ajra106.git'
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.
```

```
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), 474.16 KiB | 905.00 KiB/s, done.
From https://github.com/Pratham20695/OST-PrathamGajra106
 * branch          main      -> FETCH_HEAD
 * [new branch]     main      -> origin/main
Merge made by the 'ort' strategy.
```

```
01CE0618 - Open Source Technologies Syllabus.pdf | 5757 ++++++++++++++++++++
OST-ex1.docx                                     |  Bin 0 -> 219831 bytes
OST-ex1.pdf                                      |  Bin 0 -> 116178 bytes
README.md                                        |    2 +
4 files changed, 5759 insertions(+)
create mode 100644 01CE0618 - Open Source Technologies Syllabus.pdf
create mode 100644 OST-ex1.docx
create mode 100644 OST-ex1.pdf
create mode 100644 README.md

student@MC309-192 MINGW64 /c/ost (dev)
$ git push -u origin main
To https://github.com/Pratham20695/OST-PrathamGajra106.git
 ! [rejected]        main -> main (non-fast-forward)
error: failed to push some refs to 'https://github.com/Pratham20695/OST-PrathamG
ajra106.git'
hint: Updates were rejected because a pushed branch tip is behind its remote
hint: counterpart. If you want to integrate the remote changes, use 'git pull'
hint: before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.

student@MC309-192 MINGW64 /c/ost (dev)
$ git branch
* dev
  main
```
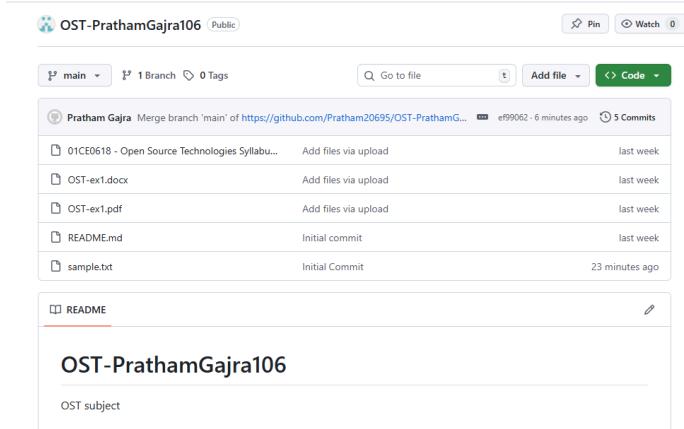
```
From https://github.com/Pratham20695/OST-PrathamGajra106
 * branch          main     -> FETCH_HEAD
Merge made by the 'ort' strategy.
 01CE0618 - Open Source Technologies Syllabus.pdf | 5757 ++++++++++++++++++++
 OST-ex1.docx                      |  Bin 0 -> 219831 bytes
 OST-ex1.pdf                       |  Bin 0 -> 116178 bytes
 README.md                         |   2 +
 4 files changed, 5759 insertions(+)
 create mode 100644 01CE0618 - Open Source Technologies Syllabus.pdf
 create mode 100644 OST-ex1.docx
 create mode 100644 OST-ex1.pdf
 create mode 100644 README.md

student@MC309-192 MINGW64 /c/ost (main)
$ git push -u origin main
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 6 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (5/5), 529 bytes | 529.00 KiB/s, done.
Total 5 (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/Pratham20695/OST-PrathamGajra106.git
   d4ba1a1..ef99062  main -> main
branch 'main' set up to track 'origin/main'.
```

OST-PrathamGajra106 Public

Pin Watch 0

main ▾   1 Branch   0 Tags   Go to file   Add file ▾   <> Code ▾

Pratham Gajra Merge branch 'main' of https://github.com/Pratham20695/OST-PrathamG... ef99062 · 6 minutes ago   5 Commits

01CE0618 - Open Source Technologies Syllabu...	Add files via upload	last week
OST-ex1.docx	Add files via upload	last week
OST-ex1.pdf	Add files via upload	last week
README.md	Initial commit	last week
sample.txt	Initial Commit	23 minutes ago

README

OST-PrathamGajra106

OST subject

```
From https://github.com/Pratham20695/OST-PrathamGajra106
 * branch            main       -> FETCH_HEAD
Merge made by the 'ort' strategy.
 01CE0618 - Open Source Technologies Syllabus.pdf | 5757 +++++++++++++++++++++++++
 OST-ex1.docx                                     |  Bin 0 -> 219831 bytes
 OST-ex1.pdf                                      |  Bin 0 -> 116178 bytes
 README.md                                        |    2 +
 4 files changed, 5759 insertions(+)
 create mode 100644 01CE0618 - Open Source Technologies Syllabus.pdf
 create mode 100644 OST-ex1.docx
 create mode 100644 OST-ex1.pdf
 create mode 100644 README.md

student@MC309-192 MINGW64 /c/ost (main)
$ git push -u origin main
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 6 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (5/5), 529 bytes | 529.00 KiB/s, done.
Total 5 (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/Pratham20695/OST-PrathamGajra106.git
   d4ba1a1..ef99062  main -> main
branch 'main' set up to track 'origin/main'.

student@MC309-192 MINGW64 /c/ost (main)
$ ^C

student@MC309-192 MINGW64 /c/ost (main)
$ |
```