**3. Useful Git Commands**

**1. git checkout**

* **Purpose:** Switch between branches or restore files.
* **Common uses:**
  1. Switch to another branch:

git checkout branch\_name

* 1. Create a new branch and switch to it:

git checkout -b new\_branch\_name

* 1. Restore a file from a previous commit:

git checkout commit\_hash -- filename

**2. git log**

* **Purpose:** View the commit history of your repository.
* **Common options:**
  1. Simple log:

git log

* 1. Oneline (compact view):

git log --oneline

* 1. With graph and branches:

git log --graph --all --decorate

**3. git diff**

* **Purpose:** Show changes between commits, the working directory, and staging area.
* **Common uses:**
  1. Changes not staged for commit:

git diff

* 1. Changes staged for commit:

git diff --staged

* 1. Between commits:

git diff commit1\_hash commit2\_hash

**4. git rm**

* **Purpose:** Remove files from the working directory **and** stage the deletion for commit.
* **Common uses:**
  1. Remove a single file:

git rm filename

* 1. Remove a file but keep it locally (unstaged):

git rm --cached filename

* 1. Remove multiple files:

git rm file1 file2 file3

**✅ In short**

* git checkout → Switch branches / restore files.
* git log → View commit history.
* git diff → See changes between commits/staged/unstaged files.
* git rm → Remove files and stage deletion.