

Git Assignment

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Assignment 1: Initialize a new Git repository in a directory of your choice. Add a simple text file to the repository and make the first commit.

```
C:\Windows\System32\cmd > + <
Microsoft Windows [Version 10.0.26100.7462]
(c) Microsoft Corporation. All rights reserved.

C:\Users\dipte\OneDrive\Documents\Git_Assignment>git --version
git version 2.52.0.windows.1

C:\Users\dipte\OneDrive\Documents\Git_Assignment>mkdir first_git_repo
C:\Users\dipte\OneDrive\Documents\Git_Assignment>cd first_git_repo
C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git init
Initialized empty Git repository in C:/Users/dipte/OneDrive/Documents/Git_Assignment/first_git_repo/.git/
C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git add .
C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
    new file:   emp1.txt

C:\Windows\System32\cmd > + <
and the repository exists.

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git config --global user.name "diptendramaity9"
C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git config --global user.email "diptendramaity9@gmail.com"
fatal: 'origin' does not appear to be a git repository
fatal: Could not read from remote repository.

Please make sure you have the correct access rights
and the repository exists.

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git remote add origin https://github.com/diptendramaity/Git_assignment
C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git push origin master
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 16 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 259 bytes | 259.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/diptendramaity/Git_assignment
 * [new branch]      master -> master
```

Assignment 2: Branch Creation and Switching

Create a new branch named 'feature' and switch to it. Make changes in the 'feature' branch and commit them.

```
C:\Windows\System32\cmd> git branch
* master

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git branch feature
C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git checkout feature
Switched to branch 'feature'

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git branch
* feature
  master

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>echo "This change is from feature branch" >> f1.txt
C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git status
On branch feature
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    f1.txt

nothing added to commit but untracked files present (use "git add" to track)

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git add f1.txt
C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git status
On branch feature
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   f1.txt

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git commit -m "Add a feature branch update to f1.txt"
[feature 8fffb17] Add a feature branch update to f1.txt
 1 file changed, 1 insertion(+)
 create mode 100644 f1.txt
```

```
C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git push origin feature
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 16 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 319 bytes | 319.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'feature' on GitHub by visiting:
remote:   https://github.com/diptendramaity/Git_assignment/pull/new/feature
remote:
To https://github.com/diptendramaity/Git_assignment
 * [new branch]      feature -> feature

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>
```

Assignment 3: Feature Branches and Hotfixes

Create a 'hotfix' branch to fix an issue in the main code. Merge the 'hotfix' branch into 'main' ensuring that the issue is resolved.

```
C:\Windows\System32\cmd > + ^

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git branch
* feature
  master

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git checkout master
Switched to branch 'master'

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git status
On branch master
nothing to commit, working tree clean

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git branch hotfix
C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git checkout hotfix
Switched to branch 'hotfix'

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git branch
  feature
* hotfix
  master

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>echo "Hotfix: critical bug fixed" >> f1.txt
C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git add f1.txt
C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git commit -m "Hotfix: fix critical issue in f1.txt"
[hotfix 4107f5b] Hotfix: fix critical issue in f1.txt
 1 file changed, 1 insertion(+)
 create mode 100644 f1.txt

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git checkout master
Switched to branch 'master'

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git merge hotfix
Updating b2f1a1d..4107f5b
Fast-forward
  f1.txt | 1 +
  1 file changed, 1 insertion(+)
 create mode 100644 f1.txt

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>git log --oneline --graph --decorate
* 4107f5b (HEAD --> master, hotfix) Hotfix: fix critical issue in f1.txt
* b2f1a1d (origin/master) Employee details

C:\Users\dipte\OneDrive\Documents\Git_Assignment\first_git_repo>
```