Assignment-1 Git

▼ Task-1

• Demonstrate minimum of 15 basic Git command with explanation and screenshot.

Solution:

1. git init

   - Initializes the git repository

```
PS C:\Naveen\DataScienceProjects\gitAssignment> git init
Initialized empty Git repository in C:/Naveen/DataScienceProjects/gitAssignment/.git/
```

2. git config —global <<config_name>> <<config_value>>

   - Configures the user name/user email for git

```
PS C:\Naveen\DataScienceProjects\gitAssignment> git config --global user.name Naveen Karanth
PS C:\Naveen\DataScienceProjects\gitAssignment>
```

3. git remote add origin <<url>>

   - Adds the remote repository URL to the git as 'origin'.

```
PS C:\Naveen\DataScienceProjects\gitAssignment> git remote add origin https://github.com/nav52/gitAssignment.git
PS C:\Naveen\DataScienceProjects\gitAssignment>
```

4. git remote -v

   - Verifies the origin to see if the fetch and push URLs are correctly configured.

```
PS C:\Naveen\DataScienceProjects\gitAssignment> git remote -v
origin   https://github.com/nav52/gitAssignment.git (fetch)
origin   https://github.com/nav52/gitAssignment.git (push)
```

5. git pull origin main

- Pulls the remote repository to the local repository.

```
PS C:\Naveen\DataScienceProjects\gitAssignment> git pull origin main
From https://github.com/nav52/gitAssignment
 * branch              main         -> FETCH_HEAD
```

6. git status

- Show the status of the files (tracked and untracked)

```
PS C:\Naveen\DataScienceProjects\gitAssignment> git status
On branch main
Changes not staged for commit:
  (use "git add/rm <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   README.md
        deleted:    src/README.nd

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        src/README.md

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

7. git add .

- Adds all the untracked files to the staging area.

```
PS C:\Naveen\DataScienceProjects\gitAssignment> git add .
PS C:\Naveen\DataScienceProjects\gitAssignment> git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   README.md
        renamed:    src/README.nd -> src/README.md
```

8. git commit -m <<Commit_message>>

- Commits the staged files to the local repository.

```
PS C:\Naveen\DataScienceProjects\gitAssignment> git commit -m "Modified README.md"
[main dd39dac] Modified README.md
 2 files changed, 1 insertion(+), 2 deletions(-)
 rename src/{README.nd => README.md} (100%)
```

9. git push origin main

- Pushes the recent commits to the remote repository from the main branch.

```
PS C:\Naveen\DataScienceProjects\gitAssignment> git push origin main
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 12 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 337 bytes | 168.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/nav52/gitAssignment.git
   6d828d4..dd39dac  main -> main
```

10 . git branch

- Displays the branches in the repository.

```
PS C:\Naveen\DataScienceProjects\gitAssignment> git branch
* main
```

11. git branch <<branch_name>>

- Creates a new branch with the given <<branch_name>>

```
PS C:\Naveen\DataScienceProjects\gitAssignment> git branch readmeUpdater
PS C:\Naveen\DataScienceProjects\gitAssignment> git branch
* main
  readmeUpdater
```

12. git checkout <<branch_name>>

- Switches to the <<branch_name>> from the current branch.

```
PS C:\Naveen\DataScienceProjects\gitAssignment> git checkout readmeUpdater
Switched to branch 'readmeUpdater'
```

13. git merge <<branch_name>>

- Merges the <<branch_name>> to the current branch.

```
PS C:\Naveen\DataScienceProjects\gitAssignment> git merge readmeUpdater
Updating dd39dac..931b1f0
Fast-forward
 README.md | 2 ++
 1 file changed, 2 insertions(+)
```

14. git branch -d <<branch_name>>

- Deletes the branch <<branch_name>>

```
PS C:\Naveen\DataScienceProjects\gitAssignment> git branch -d readmeUpdater
Deleted branch readmeUpdater (was 931b1f0).
```

15. git log

- Displays the history of commits with commit hash, Author name and email, Timestamp and commit message.

```
PS C:\Naveen\DataScienceProjects\gitAssignment> git log
commit 931b1f0a1f0ab6ffd9454e452439df88acf13659 (HEAD -> main, readmeUpdater)
Author: Naveen <naveenfaster@gmail.com>
Date:    Sat Oct 1 15:25:58 2022 +0530

    Updated README from readmeUpdater branch

commit dd39dacde82acbeef6121d455c9ba0f9f5e0bbb3 (origin/main)
Author: Naveen <naveenfaster@gmail.com>
Date:    Sat Oct 1 15:19:41 2022 +0530

    Modified README.md

commit 6d828d45c5ffa07bc53ecc2916457647d78af868
Author: Naveen Karanth <37159044+nav52@users.noreply.github.com>
Date:    Sat Oct 1 15:02:43 2022 +0530

    Initial commit
```

Task-2

Consider that your want to start an open-source project in your organization. Perform all the standard operation to create a repository with minimal permission for all the users. It should contain.

1. Proper open source structure

2. Proper Readme

3. Add 2 collaborator

4. Host GitHub Pages using settings (Designed to host your personal, organization, or project pages from a GitHub repository)