

Module 2: Working with Git Repositories

Demo 3: Demo on working with remote repositories.

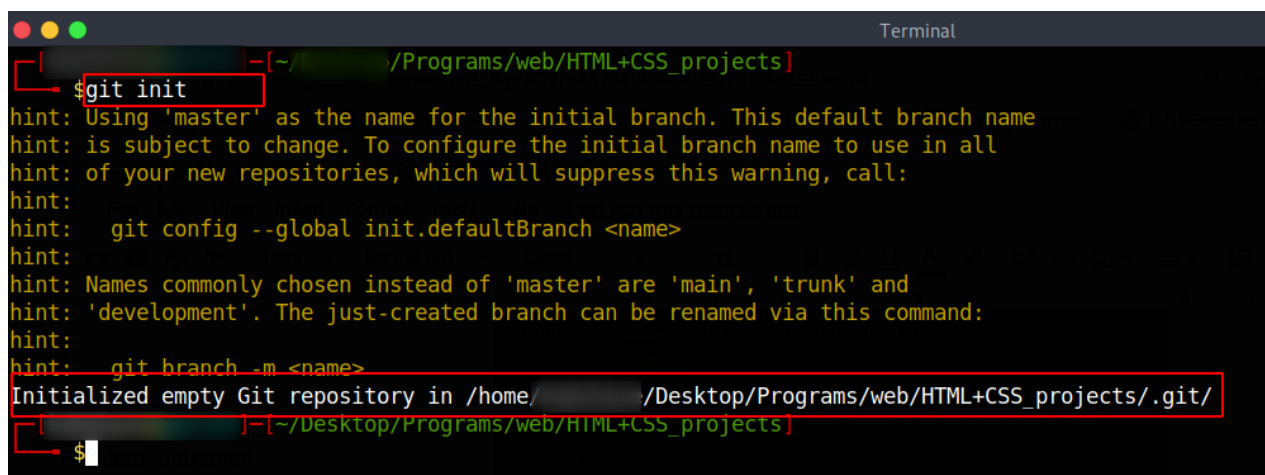
Problem Statement:

What are the different operations that can be performed on remote repositories using git Bash?

Solution:

Step 1: In this demo, we are initializing new git repositories into our local repository, and then add it to a remote repository and then we perform cloning of a remote repository into our local system. Let us initialise our fresh git repository.

Command Used: git init

A terminal window titled "Terminal" with a dark background. The prompt is "[~/Desktop/Programs/web/HTML+CSS_projects]". The command "\$ git init" is entered and executed. The output shows several hints from Git about the default branch name 'master' and how to change it using 'git config' or 'git branch -m'. The final line of output is "Initialized empty Git repository in /home/.../Desktop/Programs/web/HTML+CSS_projects/.git/". The prompt then returns to "\$".

```
[~/Desktop/Programs/web/HTML+CSS_projects]
$ git init
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
Initialized empty Git repository in /home/.../Desktop/Programs/web/HTML+CSS_projects/.git/
[~/Desktop/Programs/web/HTML+CSS_projects]
$
```

Step 2: Add our Project into the local repository.

Command Used : git add .

Command Used: git status

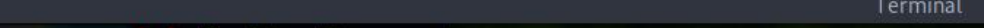
[illegible]

Step 3: Let us connect this local repository into a remote repository. To connect local repository with a remote repository. A remote repository can have a name set to prevent the repository URL from being remembered.

Command Used: git remote

```
# Add remote repository
$ git remote <command> <remote_name> <remote_URL>
```

```
# List named remote repositories
$ git remote -v
```



The screenshot shows a macOS Terminal window with a dark background. The title bar at the top has three colored window control buttons (red, yellow, green) on the left and the word "Terminal" on the right. The terminal content shows a prompt character (a red arrow) followed by a directory path that has been redacted with a green box. The user enters the command `$git remote -v`. The output shows two entries for the remote named "origin": `https://github.com/nitindhariyal/Demo.git (fetch)` and `https://github.com/nitindhariyal/Demo.git (push)`. Another prompt character is visible at the bottom, followed by a redacted path and a cursor.

```
[redacted]~[~/Desktop/Programs/[redacted]]  
$git remote -v  
origin https://github.com/nitindhariyal/Demo.git (fetch)  
origin https://github.com/nitindhariyal/Demo.git (push)  
[redacted]~[~/Desktop/Programs/[redacted]]  
$
```

Let us get the link of the remote repository in which we want to add our local repository.

Quick setup — if you've done this kind of thing before

or

Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

Let us add our local project into remote repo using command:

git remote add origin

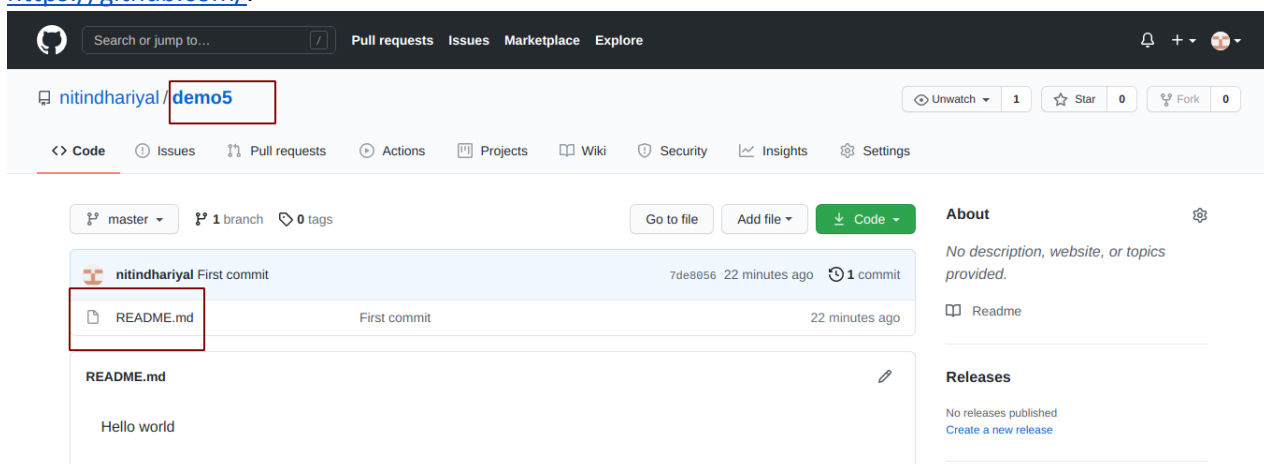
```
Terminal
[~] - [~/Desktop/Programs/Git]
$ git remote add origin https://github.com/nitindhariyal/demo5.git
[~] - [~/Desktop/Programs/Git]
$ git remote -v
origin https://github.com/nitindhariyal/demo5.git (fetch)
origin https://github.com/nitindhariyal/demo5.git (push)
[~] - [~/Desktop/Programs/Git]
$
```

Step 4: Let us push our local project to a remote repository.

Command used: git push -u origin master

```
Terminal
[~] - [~/Desktop/Programs/Git]
$ git push -u origin master
Username for 'https://github.com': nitindhariyal
Password for 'https://nitindhariyal@github.com':
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 228 bytes | 228.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/nitindhariyal/demo5.git
 * [new branch]      master -> master
Branch 'master' set up to track remote branch 'master' from 'origin'.
[~] - [~/Desktop/Programs/Git]
$
```

Let us check our GitHub if this local repository is added to our remote repository or not. Open <https://github.com/>.

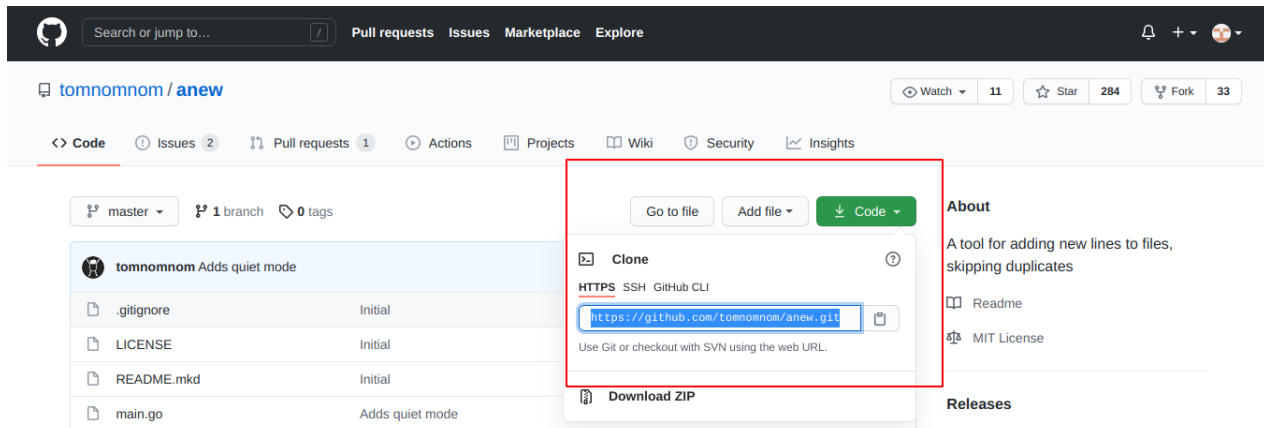


Step 4: Use git clone to copy and download the repository to a computer to create local working copy of an existing remote repository. When working on a remote repository, cloning is the same as git init. Git will locally create a directory with all repository histories and files.

Command used: git clone

\$ git clone <remote_URL>

open that repository which you want to clone into your local system,



then use the command which is used earlier.

