Assignment No. - 3

Aim: To perform various Git operations.

LO Mapped: LO1, LO2

Theory:

1) git config

Utility : To set your user name and email in the main configuration file.

How to : To check your name and email type in git config --global user.name and git config --global user.email.

2) git init

Utility : To initialise a git repository for a new or existing project.

How to : git init in the root of your project directory.

3) git clone

Utility : To copy a git repository from remote source, also sets the remote to original source so

that you can pull again.

How to : git clone <:clone git url:>

4) git status

Utility : To check the status of files you've changed in your working directory, i.e, what all has

changed since your last commit.

How to : git status in your working directory. lists out all the files that have been changed.

5) git add

Utility : adds changes to stage/index in your working directory.

How to : git add .

6) git commit

Utility : commits your changes and sets it to new commit object for your remote.

How to : git commit -m"sweet little commit message"

7) git push/git pull

Utility : Push or Pull your changes to remote. If you have added and committed your changes

and you want to push them. Or if your remote has updated and you want those latest changes.

How to : git pull <:remote:> <:branch:> and git push <:remote:> <:branch:>

8) git branch

Utility : Lists out all the branches.

How to : git branch or git branch -a to list all the remote branches as well.

9) git checkout

Utility : Switch to different branches

How to : git checkout <:branch:> or **_git checkout -b <:branch:> if you want to create and switch to a new branch.

10) git stash

Utility : Save changes that you don't want to commit immediately.

How to : git stash in your working directory. git stash apply if you want to bring your saved changes back.

11) git merge

Utility : Merge two branches you were working on.

How to : Switch to branch you want to merge everything in. git

merge <:branch_you_want_to_merge:>

12) git reset

Utility : You know when you commit changes that are not complete, this sets your index to the

latest commit that you want to work on with.

How to : git reset <:mode:> <:COMMIT:>

13) git remote

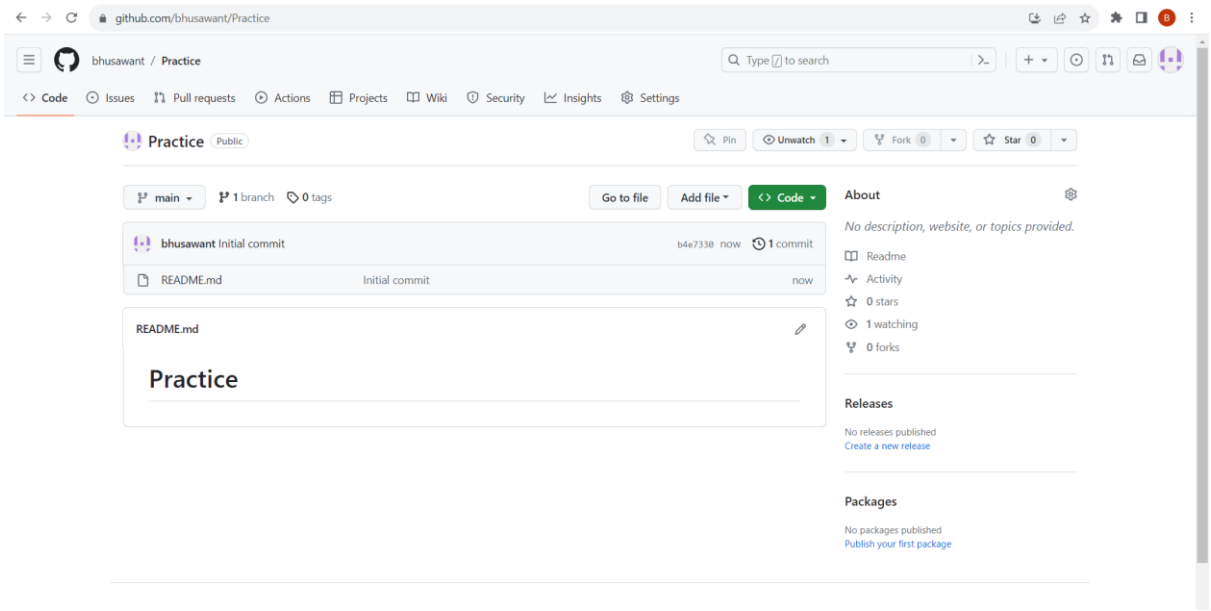
Utility : To check what remote/source you have or add a new remote.

How to : git remote to check and list. And git remote add <:remote_url:>

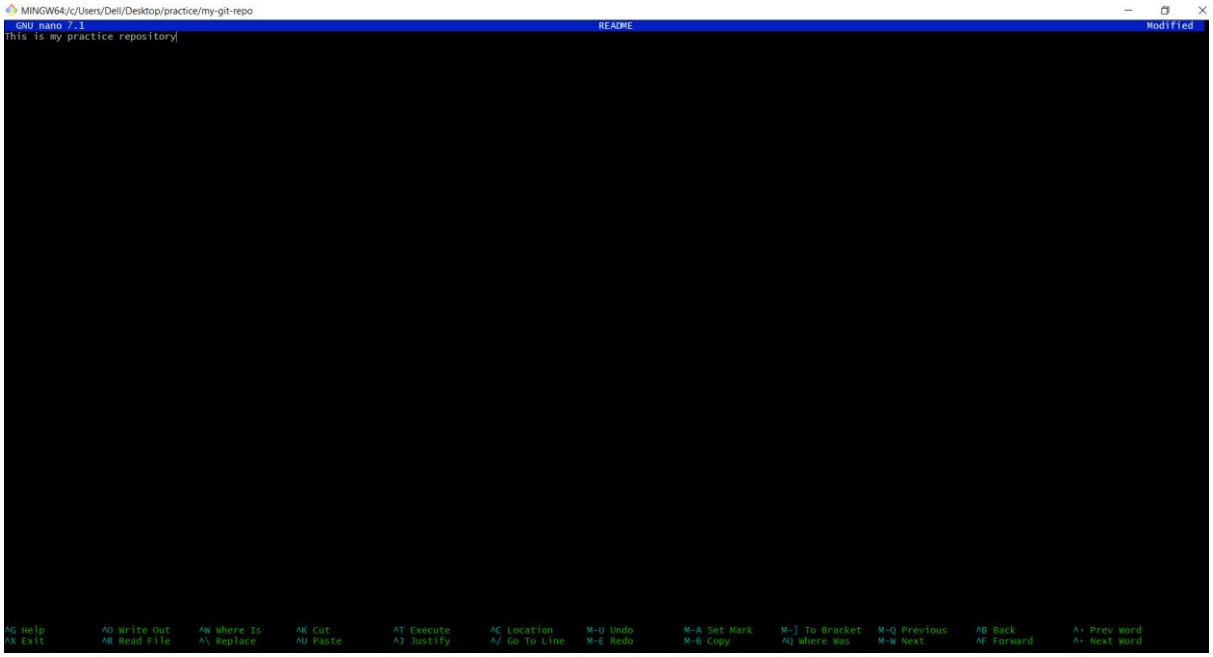
These are the commands that I feel are essential and get things done, at least for me. Comment

here if you think I've missed something important or if something can be done differently.

Output:




```
Dell@DESKTOP-94L4PU9 MINGW64 ~/Desktop/practice
$ git --version
git version 2.39.0.windows.2

Dell@DESKTOP-94L4PU9 MINGW64 ~/Desktop/practice
$ git init
Initialized empty Git repository in C:/Users/Dell/Desktop/practice/.git/

Dell@DESKTOP-94L4PU9 MINGW64 ~/Desktop/practice (master)
$ git remote add origin https://github.com/bhusawant/Practice.git


$ git clone https://github.com/bhusawant/E-learningSite
Cloning into 'E-learningSite'...
remote: Enumerating objects: 24, done.
remote: Counting objects: 100% (24/24), done.
remote: Compressing objects: 100% (21/21), done.
remote: Total 24 (delta 5), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (24/24), 4.48 MiB | 13.36 MiB/s, done.
Resolving deltas: 100% (5/5), done.



Dell@DESKTOP-94L4PU9 MINGW64 ~/Desktop/practice/my-git-repo (master)
$ itialized empty Git repository in C:/Users/Dell/Desktop/practice/my-git-
repo/.git/
Dell@DESKTOP-94L4PU9 MINGW64 ~/Desktop/practice/my-git-repo (master)
$ ll@DESKTOP-94L4PU9 MINGW64 ~/Desktop/practice/my-git-repo (master)
$ git config --global user.name "bhusawant"
Dell@DESKTOP-94L4PU9 MINGW64 ~/Desktop/practice/my-git-repo (master)
$ ll@DESKTOP-94L4PU9 MINGW64 ~/Desktop/practice/my-git-repo (master)
$ git config --global user.email "bhuvansawant72@gmail.com"
Dell@DESKTOP-94L4PU9 MINGW64 ~/Desktop/practice/my-git-repo (master)
$ ll@DESKTOP-94L4PU9 MINGW64 ~/Desktop/practice/my-git-repo (master)
$ nano README
```




```
Dell@DESKTOP-94L4PU9 MINGW64 ~/Desktop/practice/my-git-repo (master)
$ git status
On branch master

No commits yet

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

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

Dell@DESKTOP-94L4PU9 MINGW64 ~/Desktop/practice/my-git-repo (master)
$ git add README
warning: in the working copy of 'README', LF will be replaced by CRLF the next time
Git touches it

Dell@DESKTOP-94L4PU9 MINGW64 ~/Desktop/practice/my-git-repo (master)
$ git status
On branch master

No commits yet

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


Dell@DESKTOP-94L4PU9 MINGW64 ~/Desktop/practice/my-git-repo (master)
$ git commit -m "First commit"
[master (root-commit) e517744] First commit
 1 file changed, 1 insertion(+)
 create mode 100644 README
```

Conclusion:

In this Experiment we had studied various command that are used to perform operation on local Git and uploaded work on git repository.