

Git installation:

```
# sudo apt update
# sudo apt install git
# git --version
```

Create a new remote repo in git hub.

git clone <git repo url>

Setup git:

```
# git config --global user.name "Your Name"
# git config --global user.email "youremail@domain.com"
```

1. Check the branch first:

```
# git branch
```

2. Create New branch

```
# git branch <branchname>
```

3. Switch to new branch

```
# git checkout <branchname>
```

4. Check status

```
# git status
```

5. To add file:

```
# git add filename
```

6.To check working tree status:

```
# git status
```

7. to stage file/folder(adding)

```
# git add <file/foldername> or git add .
```

8.To commit staged files to local repository:

```
# git commit -m "commit message"
```

9. Staging and committing multiple files:

```
# git commit -a -m "commit message"
```

10.Push changes to remote repo

```
# git push origin <branchname>
username: ---> give your git hub username
password: given the token generated
```

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GitHub Desktop UI tool: Everything with UI actions. It works only on MAC and Windows
Download Source: <https://desktop.github.com/>

VS Code Editor will automatically adapt with GitHub Desktop
Please install GitHub Desktop and immediately install VSCode
VsCode Download URL: <https://code.visualstudio.com/download>

Documentation: <https://docs.github.com/en/desktop>

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10. Git rm command deletes file from git repository as well as users system.
git rm <filename>

11. Git remove file from git repository but not from system
git rm --cached <filename>

12. To force remove a stage files
git rm -f <filename>

13. Git commit log:

git log

14. Working with remote repository:

Create new GIT HUB account.

Create new remote repository.

15. Adding remote repository to local:

git clone <remote repo url>

17. Remote repo list:

git remote -v

18. Git fetch:

git fetch origin

19. Git pull

git pull origin

17. Git Pull request

Create PR remotely

2. # first switch to branch main

then

git branch c1

madan@madan-virtual-machine:~/git/myfirstrepo\$ Switched to branch 'c1'

madan@madan-virtual-machine:~/git/myfirstrepo\$ git commit -m "modified s1.txt"

[c1 76a2670] modified s1.txt

1 file changed, 1 insertion(+), 1 deletion(-)

madan@madan-virtual-machine:~/git/myfirstrepo\$ git push origin c1

Username for 'https://github.com': madandevops11

```

Password for 'https://madandevops11@github.com':
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 263 bytes | 263.00 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.
remote:
remote: Create a pull request for 'c1' on GitHub by visiting:
remote:   https://github.com/madandevops11/myfirstrepo/pull/new/c1
remote:
To https://github.com/madandevops11/myfirstrepo.git
* [new branch]    c1 -> c1
madan@madan-virtual-machine:~/git/myfirstrepo$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
madan@madan-virtual-machine:~/git/myfirstrepo$ ls
file1.txt file2.txt readme.txt s1.txt
madan@madan-virtual-machine:~/git/myfirstrepo$ vi s1.txt
madan@madan-virtual-machine:~/git/myfirstrepo$ git add .
madan@madan-virtual-machine:~/git/myfirstrepo$ git commit -m "modified s1.txt in main"
[main 2fb7dd8] modified s1.txt in main
1 file changed, 1 insertion(+), 1 deletion(-)
madan@madan-virtual-machine:~/git/myfirstrepo$ git push origin main
Username for 'https://github.com': madandevops11
Password for 'https://madandevops11@github.com':
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 270 bytes | 270.00 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/madandevops11/myfirstrepo.git
   8ee3cad..2fb7dd8  main -> main
madan@madan-virtual-machine:~/git/myfirstrepo$

```

Now raise PR in git hub from c1 to main branch which will show conflicts.