



مساحه remote موجوده ف ال cloud

يسهل العمل علي بروجكت مع فريق مع اضافه تعديلات او ازاله تعديلات او مسح ايا كان

**local version control LVC** just for u

any issue in DB will lose all batches that saved on ur device

**centralized version control CVC** just one server ur team work on the project and add ,update or delete edits

**distributed version control DVC** it is like mix of local version control with centralized version control

**how DVC work?**

work admin upload file and codes on cloud

member of team want to edit or update on file he doesn't work direct with server s/he take copy of file on personal device and still link with server this process called "clone" and make his or her edit for project and push new edits for admin

then admin accept or refuse in case the admin accept he will take new edits from remote for local

**we will start with git**

- git began in 2002 or 2005 "not sure about this info" estblusher like luinx opensource every programmer can edit in this code but with standard rules
- using git and github is important skill for programers
- three tree architecture (layer)

start and edit in work directly

add for stage area

then can to take comic

then he can take snapshot or record for all edits

**GIT**

Git is a version control system, helps you keep track of code changes and used to collaborate on code.

**Benefits of Using Git**

**History Tracking:** Git allows you to track every change made in your project, including: who made the change and when it was made.

**Collaboration:** Multiple developers can be able work on the same project at the same time, and Git efficiently manages the merging of changes in code.

**Branching and Merging:** Git enables developers to create branches to work on new features or bug fixes and later merge them back into the main codebase.

**Offline Work:** Git works offline, which means you can commit changes and work on your project even without an internet connection.

## commands of git

**setup your Git user email:**

```
git config --global user.email "signups@fabiopacifici.com"
```

**How to initialize a Git repo:**

Everything starts from here. The first step is to initialize a new Git repo locally in your project root. You can do so with the command below

the command will be `git init`

**How to add a file to the staging area in Git:**

```
git add filename_here
```

**How to add all files in the staging area in Git**

```
git add .
```

**How to add only certain files to the staging area in Git With the asterisk**

```
git add fil*
```

**How to check a repository's status in Git:**

```
git status
```

**How to commit changes in the editor in Git:**

This command will open a text editor in the terminal where you can write a full commit message

```
git commit
```

**How to commit changes with a message in Git:**

You can add a commit message without opening the editor.

```
git commit -m "your commit message here"
```

**How to see your commit history in Git:**

```
git log
```

**How to see your commit history including changes in Git:**

```
git log -p
```

**How to see a specific commit in Git:**

This command shows a specific commit.

```
git show commit-id
```

**How to see log stats in Git:**

```
git log --stat
```

**How to see changes made before committing them using "diff" in Git:**

```
git diff
```

```
git diff all_checks.py
```

```
git diff --staged
```

**How to remove tracked files from the current working tree in Git:**

```
git rm filename
```

**How to rename files in Git:**

```
git mv oldfile newfile
```

**How to amend the most recent commit in Git:**

`git commit --amend` allows you to modify and add changes to the most recent commit.

**How to create a new branch in Git:**

```
git branch branch_name
```

**How to switch to a newly created branch in Git:**

```
git checkout branch_name
```

**How to list branches in Git:**

It will show a list of all branches and mark the current branch with an asterisk and highlight it in green.

```
git branch
```

**How to delete a branch in Git:**

```
git branch -d branch_name
```

**How to merge two branches in Git:**

```
git merge branch_name
```

**How to add a remote repository in Git**

```
git add remote https://repo_here
```

**How to see remote URLs in Git:**

```
git remote -v
```

**How to get more info about a remote repo in Git:**

```
git remote show origin
```

**How to push changes to a remote repo in Git:**

```
git push
```

**How to pull changes from a remote repo in Git:**

```
git pull
```

**How to fetch remote repo changes in Git:**

```
git fetch
```

How to get the contents of remote branches in Git without automatically merging:

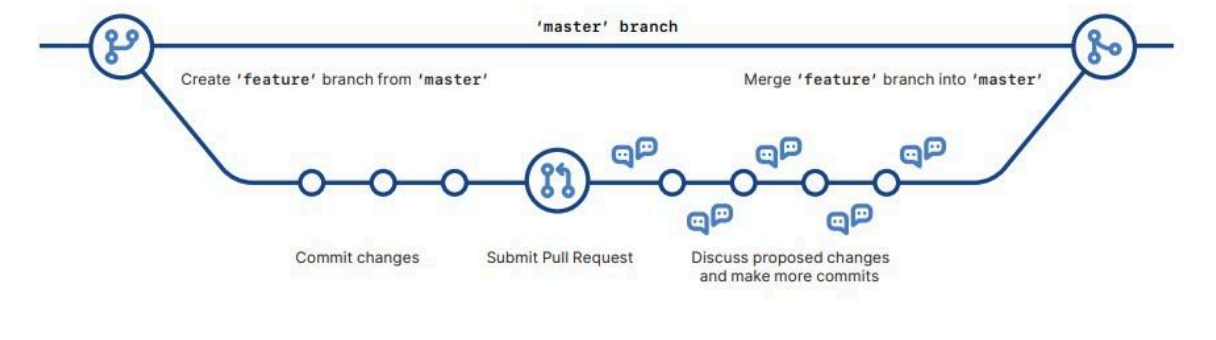
```
git remote update
```

How to push a new branch to a remote repo in Git:

```
git push -u origin branch_name
```

How to remove a remote branch in Git:

```
git push --delete origin branch_name_here
```



<https://www.freecodecamp.org/news/git-cheat-sheet/>