Git / GitHub.

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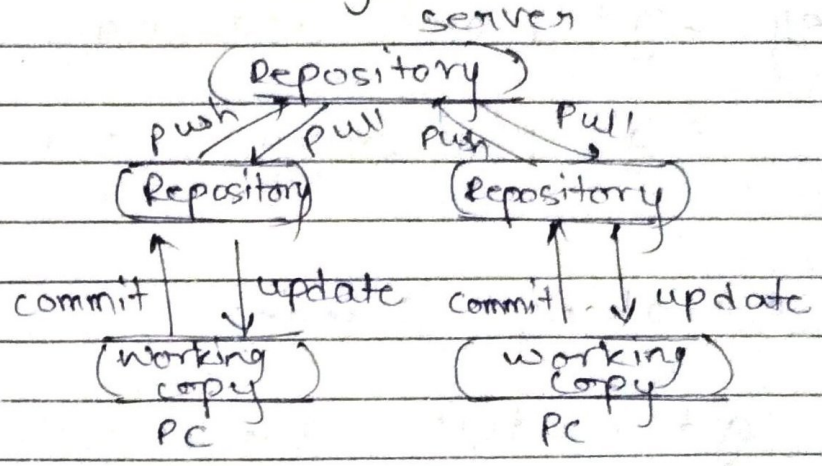
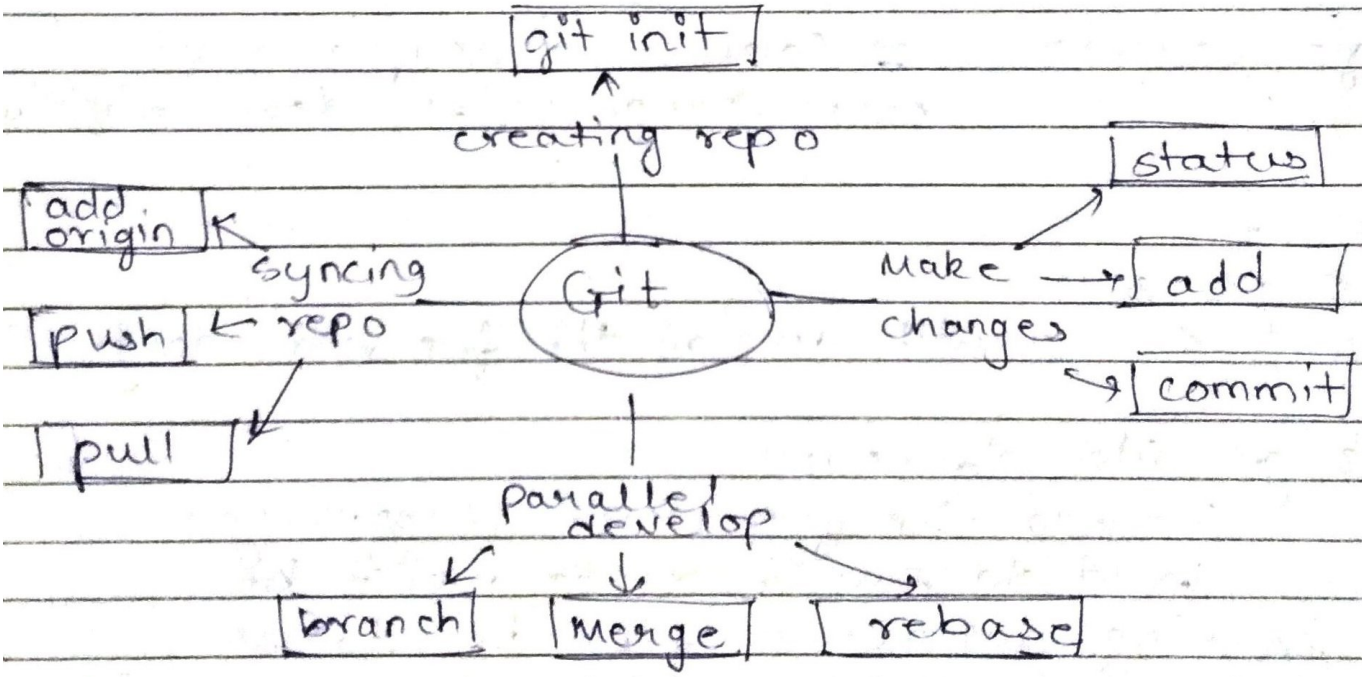
* Version control is the management of changes to documents, comp programs, large website etc.

* These changes are usually termed as "versions".

Features of Git
→ Distributed
→ Compatible
→ Non-linear
→ Branching
→ Light weight
→ speed
→ Open source
→ Reliable, Secure & Economic





- git init
  Create your local repo. [for new proj]

- git clone
  Download or clone repo from github [for ongoing proj]

- Syncing Repos.

git add origin <link> to add remote repo
Pull files with 'git pull'
push yr changes into central repo with 'git push'

eg $ git remote add origin "https://git....git"
$ git pull origin master

- Making changes.

git status → files which are ready to commit
git add → Add files to your index (let you add it)
git commit → committed snapshots will never change unless does explicitly

eg:-
$ git status
<-- it will display the file with changes -->

$ git add <filename>
<-- add the file whose changes you want to save & now it won't be showing untracked files in status rather it will say changes to be committed

$ git commit -m "added 1st commit"

<-- '-m' is message that will be visible to others as well -->

$ git add -A
<-- to add all the files which has to be staged i.e unchecked files -->

$ git commit -a -m "adding 3 files together"

$ git log
<-- shows SHA key, Author, Date, message -->

- Parallel / Non-linear Development

Branches & 2 types
- local branches (present in local repo)
- Remote-tracking branches (link local to central repo)

$ git branch fbranch

$ git checkout fbranch
<-- switched to fbranch -->
<-- main branch is master -->

- Merging (combine the work of diff branches)

$ git checkout master
<-- present in the branch which is destinat & merge -->

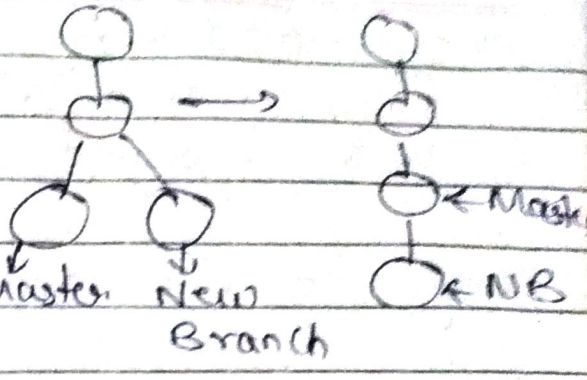
$ git merge fbranch

- Rebasing (also a way of combining b/w diff branches)

It can be used to make a linear sequence of commits

$ git checkout master

$ git rebase $branch



<-- All the work of $branch is available with master -->

$ git push origin master
<-- to push the data in master branch -->

$ git push origin $branch <-- to push in diff branch, it will create $branch -->

$ git checkout <SHA key's 1st 8 keys> <filename>
to go back to previous version

eg $ git checkout 802d31b4 revert.txt