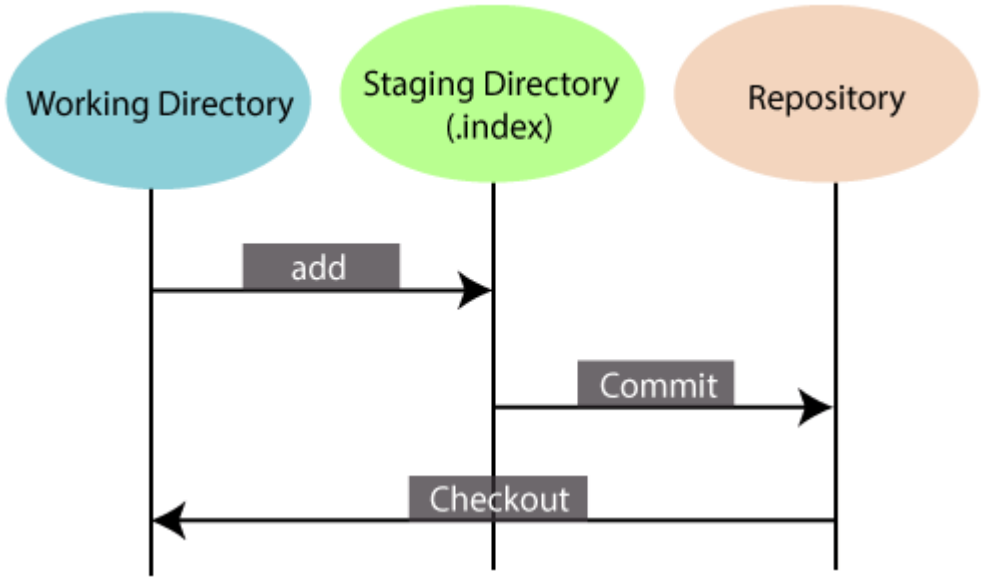
Git - Version Control System

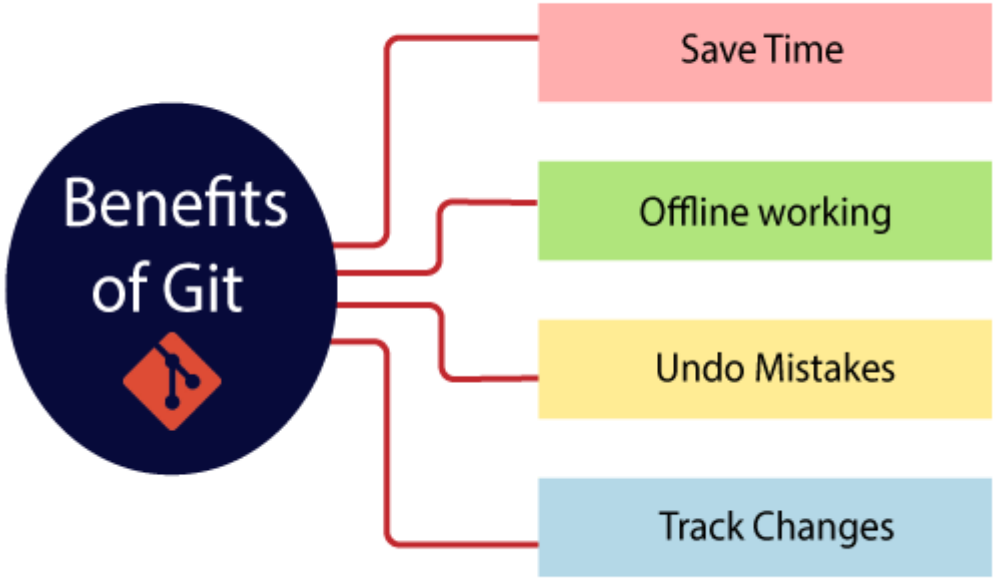
It is developed to coordinate the work among the developers.

Features of git →

Open Source – GPL licence
Scalable- large number of users git can easily handle
Distributed- on another machine user can easily clone
Security-Secure, uses SHA1 (Secure Hash Function) to name and identify the objects
Speed-fast, most of the operation on local repo
Branching and Merging- great feature, multiple branches so that other developers work together.
Staging Area- preview of next commit.



Benefits of using git →



Download and install from → https://git-scm.com/downloads

setup :

git --version
Register user with git
git config --global user.name "chail"
git config --global user.email "chail@gmail.com"
user is successfully registered
git config --list

Important Terminology →

Branch- repository diverges from main working directory.
Checkout- checkout is used for the act of switching between different versions of a target entity
Clone - making copy from server.
Merge – combining branches
Origin - remote repository from a project was initially cloned
Pull - receive the data from Server (GITHUB)
Push - Upload local repository to server.
Git Ignore - use for intentionally untrack the fine
Git Diff - shows changes between commit, working tree etc.
Git Rm - for removing files.

Create a local repository →

$ git init - initialise git
$ git clone - make a copy

Adding file to staging area →

$ git add file **//add single file**
$ git add -A **//add all files**
$ git add **.** **//add all files**

See the status of file →

$ git status

Committing the change →

$ git commit -m “comment”

Track the changes that have not been staged
$git diff
Track the changes that have staged but not committed
$git diff –-staged
Track the changes after committing a file :
$git diff HEAD
Show the objects
$ git show

Push to repository on github

$git push origin branchname
It will ask username and password

Commit History

Display the most recent commits and status of the head.
$git log
$git log -p -2
Output as one commit per line
$git log –-oneline
Display the files that have been modified
$git log –-stat
Display the modification on each line of a file:
$ git blame <file name>
Ignoring Files
Create. gitignore file

Branching

List a branch
$git branch –-list
Create Branch
$git branch [name]
Delete Branch
$git branch -d [name]

Renaming the branch
$git branch -m [old name] [new name]

Git checkout

Switch between branch in a repository
$git checkout [branch name]
Create new branch and switch to it
$git checkout -b [branch name]Merging
Merge the branches
$git merge [branch name]
Working on Remote
$git remote -v
Add remote to repository
$git remote add [name] [remote url]

Remove from
Delete the file
$git rm [file]
Only remove file from staging area
$git rm –-cached [file]

GITHUB
Repository Hosting Service
Remote Repository**:**
Git remote add name url
Git remote -v
Git push -u origin master
Git remote set-url origin url