Git and its functions

* Git is a free and open source version control systems to handle small tool designed to handle small to very large projects.

Commands in git

1) git Config

git config -global user.email "[email address]"

* This is used for Configuring its, this Command sets the author name and address respectively to be used with your Commits

2) git init

git init [repository name]

This init Command is used to start a new repository.

3) git clone: git clone [URL]

This Command is used to obtain a repository from an Existing URL.

* It first clones into file name in the URL

4) git add:- git add [file]

This Command adds one or more to the staging area.

* It tells git that you want to include updates to a file in the next Commit.

git add *

* This Command adds one or more to the staging area

5) git commit: 1) git commit -m "[Type in the commit message]"

This command records & snapshots the files permanently in the version history.

2) git commit -a

This command commits any files you've added with the git add command and also commits any files you've changed since then

3) git reset: 1) git reset [file]

The command unstages the file, but it preserves the file contents

2) git reset [commit]

The command undoes all the commits after the specified commit and preserves the commit locally.

3) git reset -hard [commit]

This command discards all history and goes back to specified commit

7) Git status:- git status

This command lists all the files that have to be committed.

8) git rm

git rm [file]

This command deletes the file from your working directory and stages the deletion

9) git log: git log -follow [file]

This command is used to list the version history for the current branch

10) git branch :- git branch [branch name]

This Commands lists all the local branches in the current repository

git branch [branch name]

This Command creates a new branch

11) git push:

① git push [Variable name] master

This Commands sends the Committed changes of the master branch to your remote repository.

② git push [Variable name] [branch]

This Commands sends the branch Commits to your remote repository.

③ git push -all [Variable name]

This Command pushes all the branches to your remote repository.

12) git pull: git pull [Repository link]

This Command fetches and merges changes on the remote servers to your working directory.

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2) what is git and how to install git, how to generate ssh key

Steps involved in installing git

1) Start by updating the package index:

$ sudo apt update

2) Run the following command to install Git

$ sudo apt install git

3) Verify the installation by typing the following command which will print the Git version

$ git --version

Configuring git

~~To check whether~~

4) $ git config --global user.name "your name"

$ git config --global user.email@yourdomain.com"

To check if the configurations have been set properly or not

$ git config --list

UP = user.name = "

user.email = "

How to initialize a directory

Suppose you are working on a project, create a folder called project.helloworld and create a directory

$ mkdir directoryname

$ cd directoryname

* Now you can tell git to monitor this directory using this Command

$ git init

O/P → initialized empty git repository in /home/user/directory/.git

generating ssh key

generating a key pair in Command terminal

* This Command, substituting in your Github email address

$ ssh-keygen -t ed25519 -C "your_email@example.com"

O/P | > Enter a file in which to save the key :

> Enter Passphrase (empty for no passphrase): Type

> Enter same Passphrase again :

adding your ssh key to the ssh-agent

① start the ssh-agent in the background

$ eval $(ssh-agent -s)"

> Agent pid 59566

How to push a file to git repository

The git push Command is used to transfer & push the Commit, which is made on a local branch in your Computer to a remote repository like github. The Command used for pushing to

git push 'remote_name' 'branch_name'

Command line to push to github

1) Creating a new repository

2) open your git bash

4) Initialize the git repository using
   git init

5) Add the file to the new local repository
6) git add
   git status

6) Commit the files staged in your local repository by writing a commit message.
   git commit -m 'your message'

7) Copy your remote repository's URL from github
8) Add the URL copied, which is your remote repository to where your local content from your repository is pushed.
9) Push the code in your local repository to Github
10) View your files in your repository hosted on github