

# GIT

Git is version control system. It is a distributed revision control system and a source code management system. Developed by Linux Torvalds.

## WHY GIT:

Imagine you are working on a project for a month, at the end of the month your project get messed up. You just stored the code daily after completing work. After some days when you feel like I want the code I had written a month ago. It's not easy to find it. Even if you find the code you won't remember all the changes you made that day. If you are working as a team, then you are in a big problem. To avoid this confusions **GIT** is used. It is open source tool developers installed in your computer to manage your code.

Git is useful for collaborative working. Any number of members can work on a same project at a same time. We can easily who contributed a particular part of code.

## REPOSITORY IN GIT:

Repository is a folders we use to create in our projects. To create a repository in Git **init** command is used. To create a file **touch** command is used. To add the file to the repository **add** command is used.

`git`

At first when you create a file it will be in the **working directory**. The changes that are made to the file can not be seen. To do this you have to add the file to the staging area. Once the file is added to the the **staging area**, git monitors the changes made to the file. To add the file local repository you just have **commit** the file. Once all the changes are you can commit it to the local repository.

## SOME BASIC GIT COMMANDS:

**git init[repository name]:**

To create a new repository

**git add[file]:**

To add file to the staging area

**git add\*:**

To add more than one file to the staging area .

**\*git commit -m"[Type in the commit message]":**

To record the record the file permanently in the version history.

**git commit -a :**

To commit all the files you have created using git add command and also the files to which you have made changes.

**git diff:**

To show the differences in file which aren't staged.

**git diff -staged:**

To show the differences between the files in the staging area and its latest version present.

**git status:**

To list the files yet to be committed.

**git rm[file]:**

To remove file from the working directory and stages the deletion .

**git log:**

To list the version history of current branch.

**git log -follow[file]:**

To list the version history of a file including renaming of the file.

**git show[commit]:**

To show the metadata and content changes of the specified commit.

**git push:**

The command sends the committed changes of the master branch to your remote repository.

**git pull[repository link]:**

This command fetches and merges changes on the remote server to your working directory.

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