Introduction to GIT

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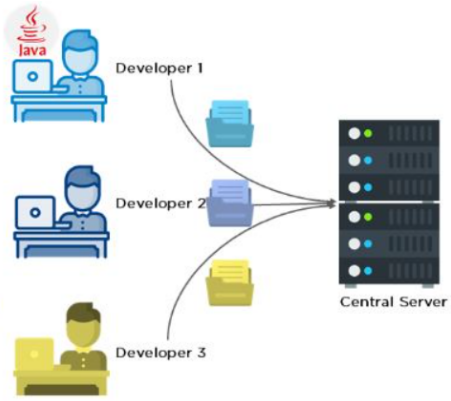
Git is an **Open-Source Version Control System** used by the **DevOps** team for **source code management**. It is used to track changes in the source code and enables many developers to work together in non-linear developments. It efficiently handles small to large projects.

Before Git	After Git
	

Importance of Git

- Tracks history
- Distributed development
- Supports Collaboration
- Open-Source
- Supports non-linear development
- Scalable
- Creates backup
- Easy branching

The use of Git will ultimately ensure faster delivery of projects and also improve the quality of source code.

Git Installation

- **Step 1**
  - Download the latest version of Git and then follow the steps below, with help of the official link.

- **Step 2:** Check the Git version

```
$ git --version
```

- **Step 3**
  - Use the following command for any help

```
$ git help config
```
or
```
$ git config --help
```

  - Help command provides manual from the help page

Steps to create a local repository

- Create a local repository

```
$ mkdir test
```
```
$ cd test
```

- Initialize the directory

```
$ git init
```

Track Status

- ***$ git status*** command is used to check the status.

```
$ git status
```

- This command gives information about what files are modified and what files are in the staging area.

Commit Files in Git

To commit files in git ***$ git commit-m "commit message"*** command is used.

```
$ git commit -m "first commit"
```

- ***git commit*** - tells git that changes made in files are ready to commit. By that time the git has to take a snapshot.
- ***-m*** - stands for message.
- ***"first commit"*** - commit message. It can be anything.

Rename Files in Git

- ***$ git mv*** command is used to rename the file in the command line.

```
$ git mv <old_FileName> <new_FileName>
```

- Replace ***old_FileName*** and ***new_FileName*** with the corresponding file names.

Delete Files in Git

- ***$ git rm*** command is used to delete a file and this command will delete the file from the filesystem as well.

```
$ git rm <file>
```

Rename and **Delete** commands alone won't affect the git repository unless these changes are committed using **Commit** command.