**DevOps (development and operations).**

**GIT**

VCS/SCM

VCS – Version control system that records changes to file or set files over time so that it can be recalled later.

SCM – Source code management.

* Dev-1 🡪 index.html 🡪 git.
* Git 🡪 Dev-2 🡪modify & upload 🡪 git.

VCS has 3 types:

1.LVCS (Local version control system)

2.CVCS (Central version control system)

3.DVCS (Distributed version control system)

* Linu’s Torvald’s invented the linux OS and in 2005 he invented the GIT.
* GIT comes from DVCS category.
* GIT always thinks about the data inside the file.

Advantages of GIT:

* Distributed : Allows distributed development of code.
* Each developer has a copy of an entire development history and changes are copied from one repository to another.
* Compatible.
* Non-Linear.
* Branching.

Repositories

* Repositories are the folder or a directory or a storage space where the project data can lie.
* There are 2 types of repositories:

1. Remote, central or online
2. Local Repository

|  |  |
| --- | --- |
| Central | Local |
| Located in remote server | Typically located on the local laptop |
| Exclusively consists of “.git” repository folder  Meant for team to share and exchange data. | Resides as a “.git” folder inside your project’s root. |
| Everyone in the team can access the data. | Only admin of the machine can acces the repo. |

Package managers in linux:

RPM(rpm) – can be used in ubuntu and debica.

YUM(yum) – used in fedora, linux, centos.

DNF(dnf) - used in fedora, linux, centos.

APT(apt) - can be used in ubuntu and debica

* To see the version of the git in git bash – git -v.
* git config --list --show-origin
* git config –global user.name “name” – to set a username.
* git config –global user.email “email address”

git init – to initialize the directory as a particular git repository.