Version Control System

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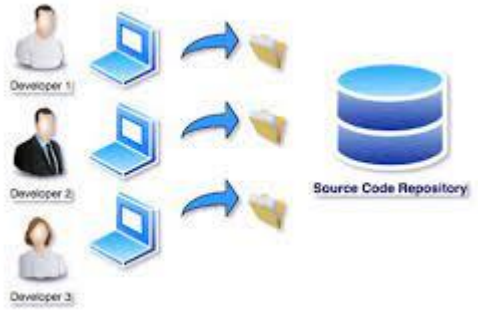
Source Code Repository



A source code repo is a space to store the code. It is a file archive and web hosting facility where programmers, software developers, and designers store large amounts of source code for the software and/or web pages for safekeeping.

Version Control System Types

Centralized Version Control

With centralized version control systems, you have a single “central” copy of your project on a server and commit your changes to this central copy. You pull the files that you need, but you never have a full copy of your project locally.

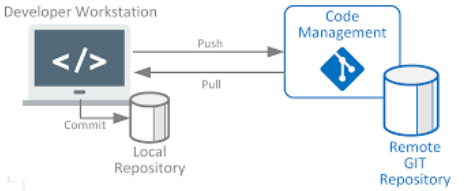
Eg CVS subversion.

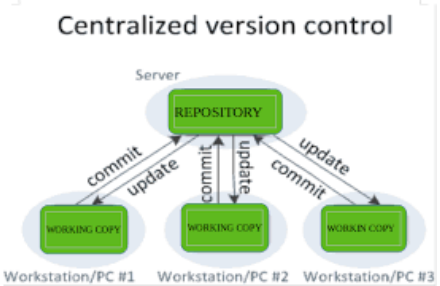
Distributed Version Control

With distributed version control systems (DVCS), you don't rely on a central server to store all the versions of a project’s files. Instead, you clone a copy of a repository locally so that you have the full history of the project. A common distributed version control systems are Git.

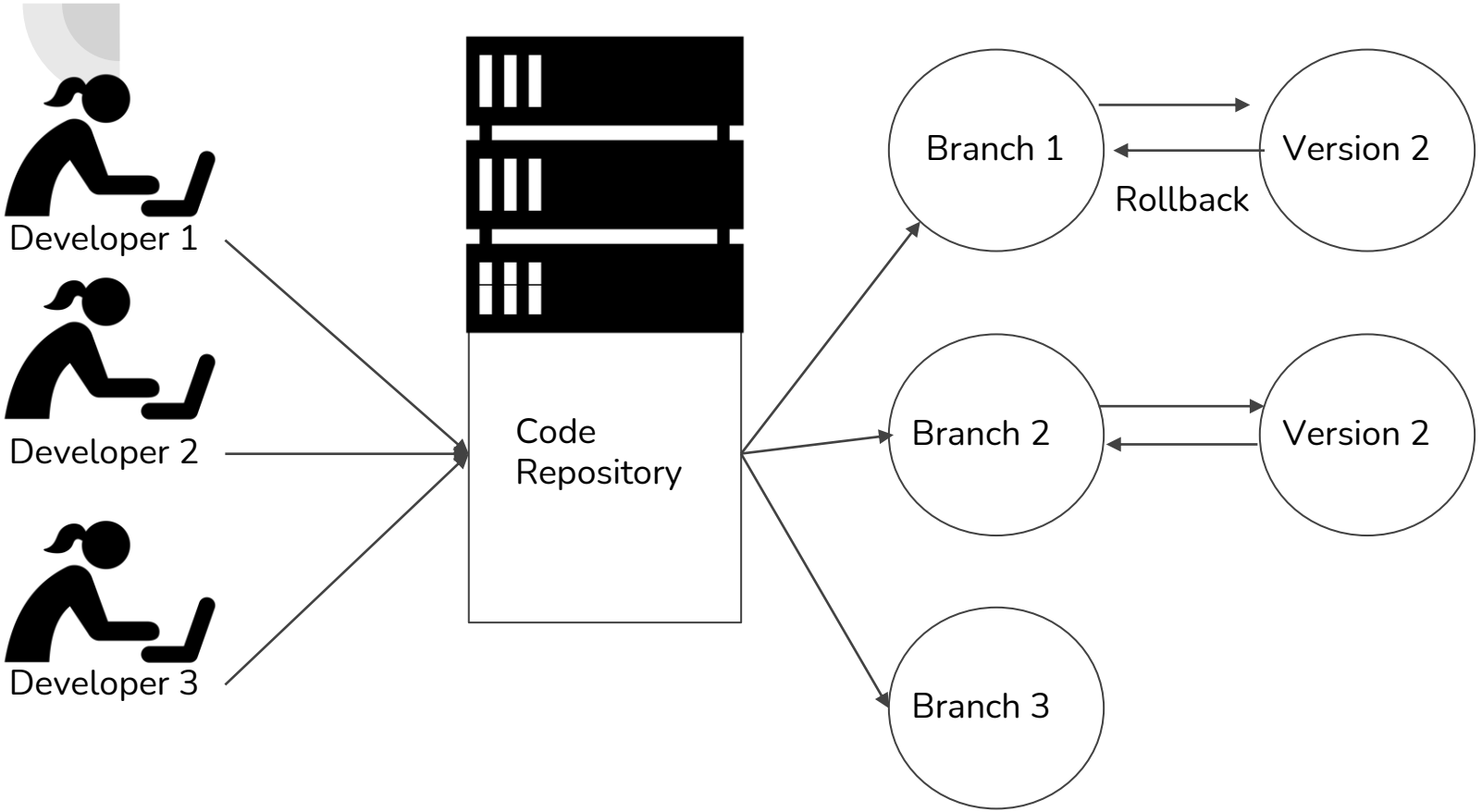
Benefits of using VCS

- Versioning the code
- Single space for the code
- Usage tags and version names
- Rollbacks
- Keep a record of changes





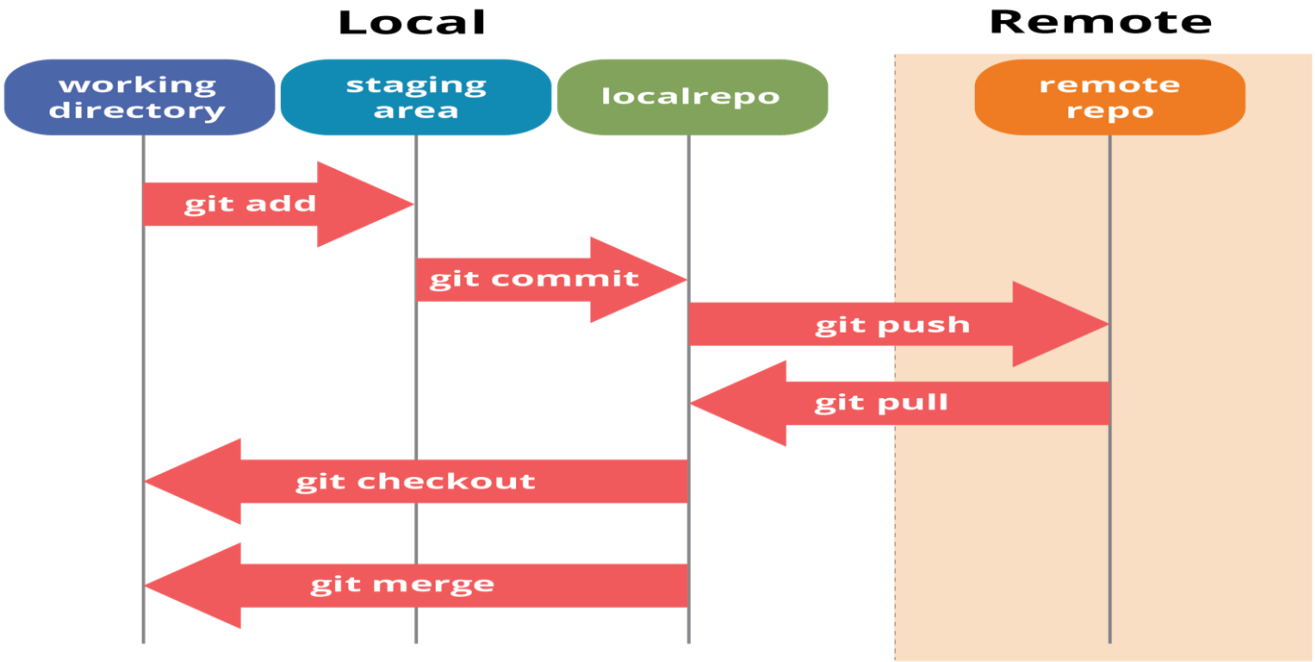
Versioning the code



What is GIT ?

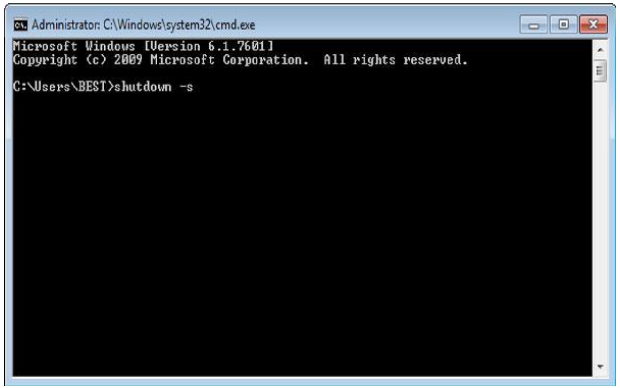
- Command line VCS
- Open Source
- Distributed Version Control System
- Created by Linus Torvalds,2005
- Cross Platform

Storing source code in Git repository



Ways to work in Github

Using Command Line



Using the interface

Some Important Git Commands

Git init
Initializes a new Git repository. If you want to place a project under revision control, this is the first command you need to learn.

Git Clone
Creates a copy of an existing Git repository. Cloning is the most common way for developers to obtain a working copy of a central repository.

Git Add
Moves changes from the working directory to the staging area. This allows you to prepare a snapshot before committing it to the official history.

Git Commit
Takes the staged snapshot and commits it to the project history.

Git Push
Push the changes into the repository branch

Git Pull
Pull the changes from a github repository to local.

Git Log
Provides logs of previous revisions of the repository

Git Branch
Used to create branches within the repository

Git Merge
It is used to merge the code of two branches.

Git Status
Displays the state of the working directory and the staged snapshot.