



GIT & GITHub: What is GIT

GIT & GITHub : Version Control System

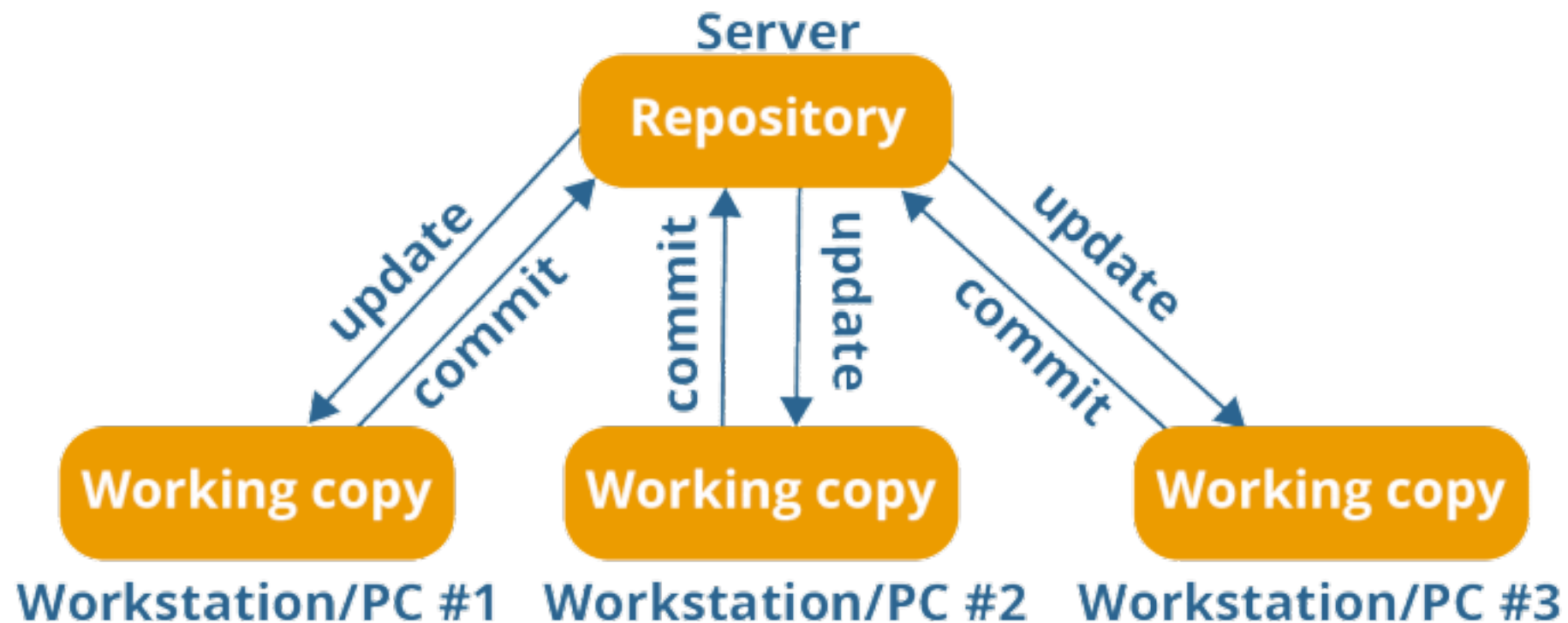
- GIT is free, open source version control system.
- **Version Control System** - VCS helps a software team manage changes to source code over time.
- Version control software keeps track of every modification to the code in a special kind of database.
- VCS System helps team to rollback to previous version in case of any issue with specific Version.
- **Need of Version Control System.**

GIT & GITHub : Version Control System

- **Types of VCS**
- Centralized Version Control System (CVCS)
- Distributed Version Control System (DVCS)
- **Centralized VCS** - CVCS uses a central server to store all files and enables team collaboration.
- CVCS works on a single repository to which users can directly access a central server.

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Centralized version control system

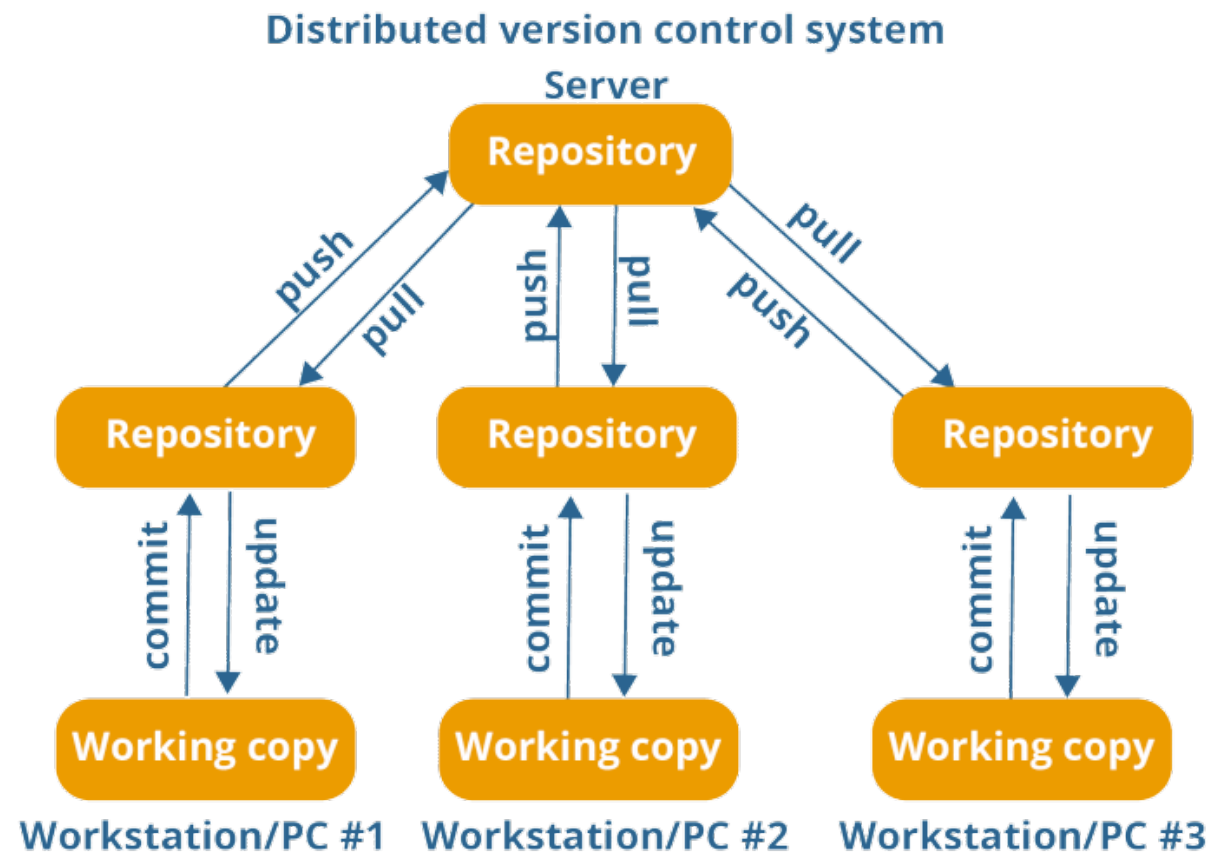


- Here Each Work Station is connect with Central Code Repository.
- **Drawbacks** - It is not locally available.
- Crash of CVCS will result in losing the entire data of the project.

GIT & GITHub : Version Control System

- **Distributed Version Control System-**
- In Distributed VCS, every contributor has a local copy or “clone” of the main repository.
- User can change and commit local Repo without any interference.
- User can update their local Repo from the Central Server.
- User can update the Central Server from their Repo.

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- Operations in DVCS are fast.
- New changes can be done locally without manipulating the central data.
- If the central server gets crashed at any point of time, the lost data can be easily recovered from any one of the contributor's local repositories.

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Will see you in Next Lecture...

Thank you!

A close-up photograph of a hand holding a black marker, completing the cursive word 'Thank you!' on a white surface. The hand is positioned on the right side of the frame, with the index and thumb fingers visible, holding the marker. The marker's tip is just finishing the exclamation mark. The background is a plain, light-colored surface.

See you in next lecture ...