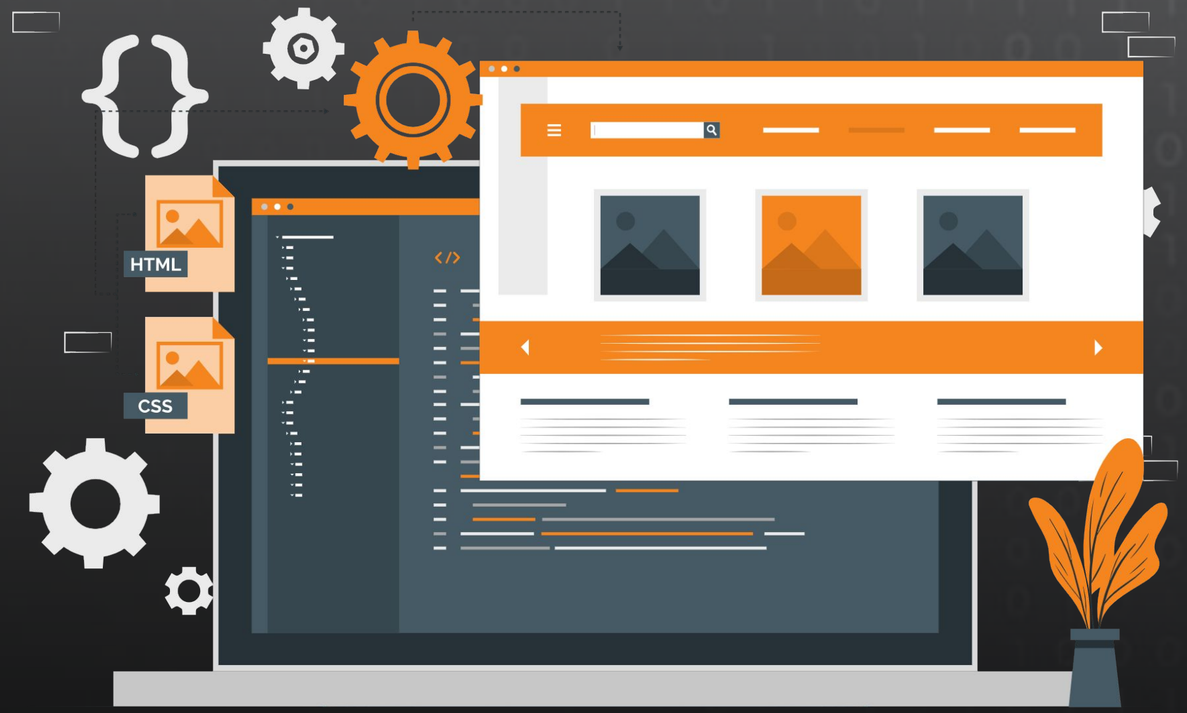
PW SKILLS

Version Control System



Topics

- Introduction to version control
- Need of Version Control System
- Working of a Version Control System
- Introduction to Git
- How to install Git ?
- Why to use Git ?
- Alternative of Git

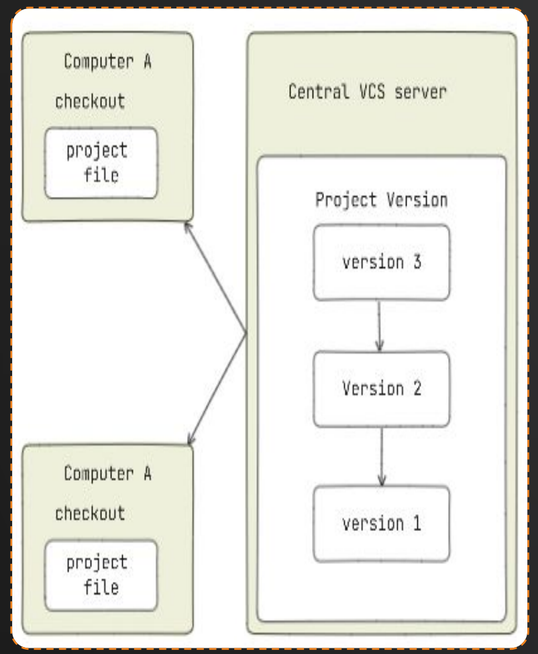
Introduction to version control

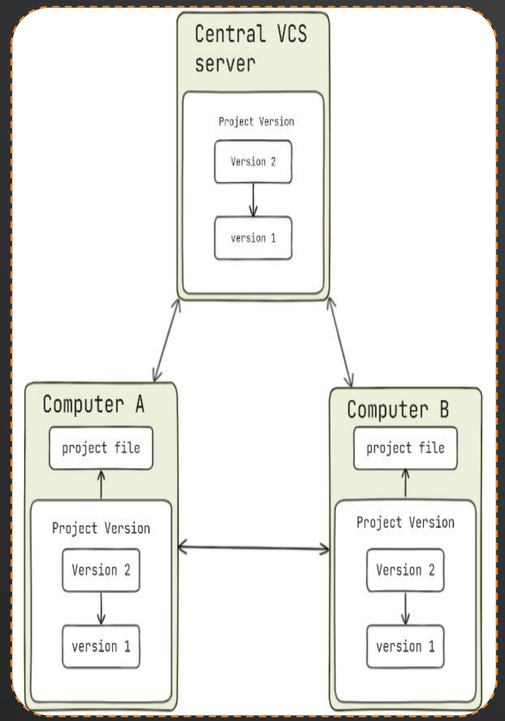
Version control is a system that records changes to a file or set of files over time, It allows you to track the history of changes, collaborate with others, and manage multiple versions of a project

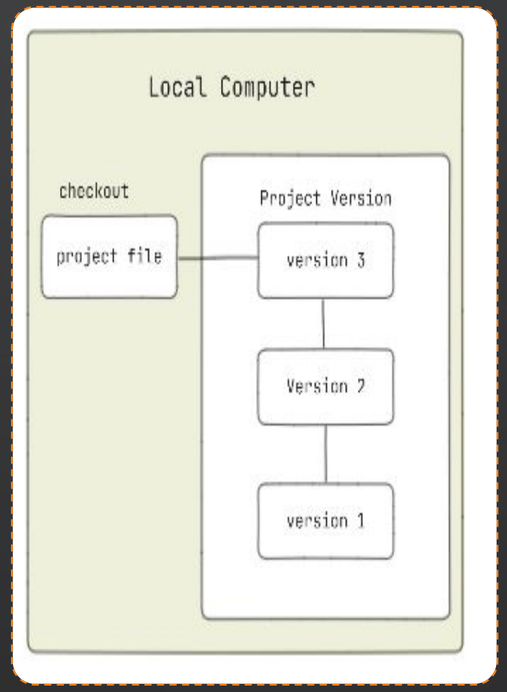
Introduction to version control contd....

Different types of Version Control System -

1. Local Version Control System
2. Centralized Version Control System
3. Distributed Version Control System



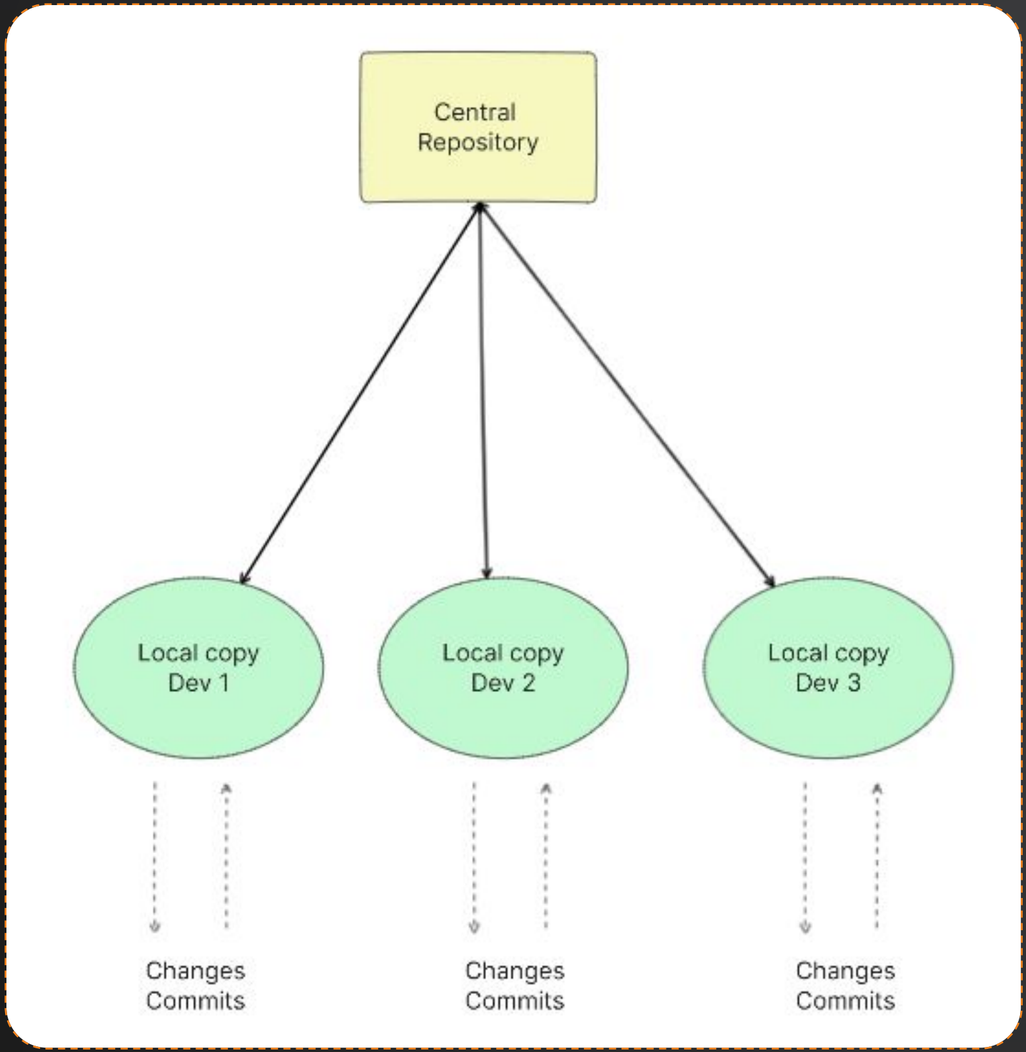




Need of Version Control System

- Tracking History changes
- Collaboration or Parallel development
- Backup and Disaster Recovery
- Code Reviews and Quality Assurance
- Experimentation and Rollback
- Release Management
- Traceability and Documentation
- Conflict Resolution
- Open Source and Collaboration Beyond Teams

Working of a Version Control System



Introduction to Git

Git is a widely used distributed version control system (DVCS) that is essential in modern software development. It was created by Linus Torvalds in 2005 and has since become the industry standard for source code management.

How to install Git ?

Window

- Download from the official website ➡️ https://git-scm.com/download/win

Mac -

Install homebrew and run the below command

brew install git

Why to use Git ?

- Distributed Version Control
- Efficient Branching and Merging
- History Tracking
- Collaboration
- Open Source
- High Performance
- Community and Ecosystem
- Platform Independence
- Security
- Flexibility

Alternative of Git

- Mercurial
- Concurrent Version System
- Subversion

THANK YOU