

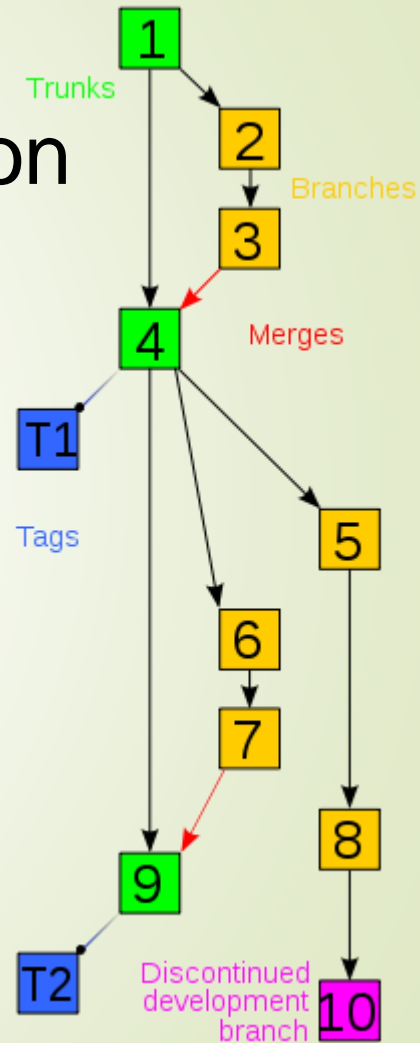
Version Control Systems

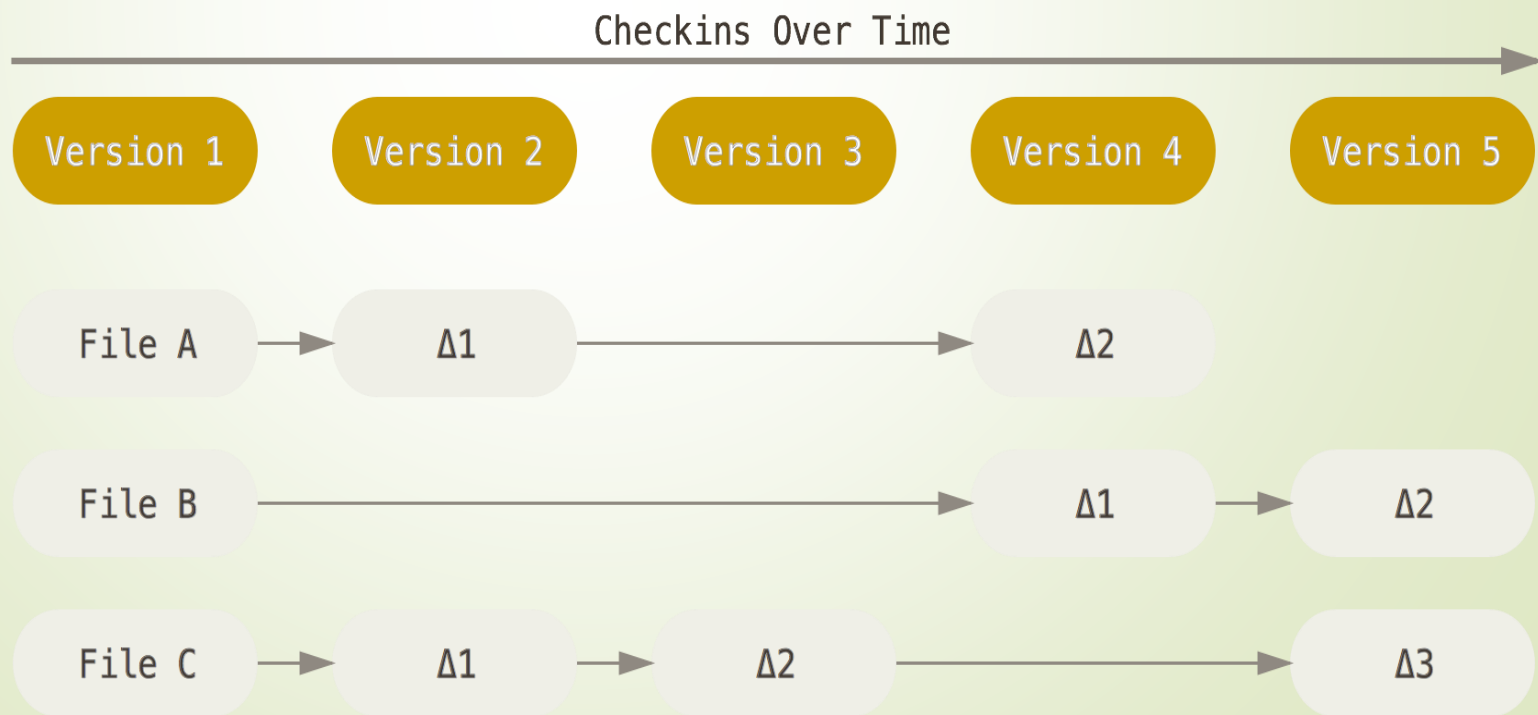
Desarrollo de Aplicaciones Cliente-Servidor

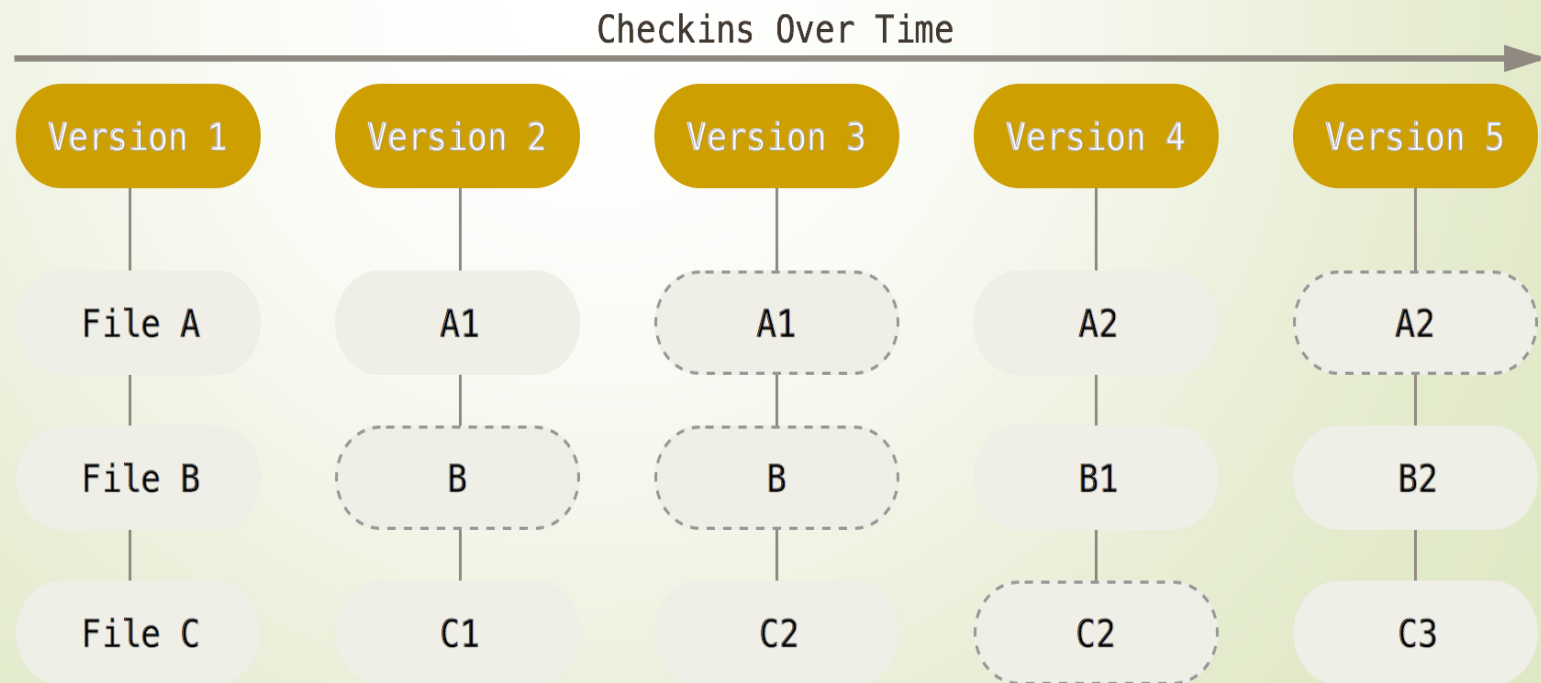
Dr. Jorge E. Villaverde

Introduction

- An aspect of Software Configuration Management.
- Manage changes to documents







Working
Directory

Staging
Area

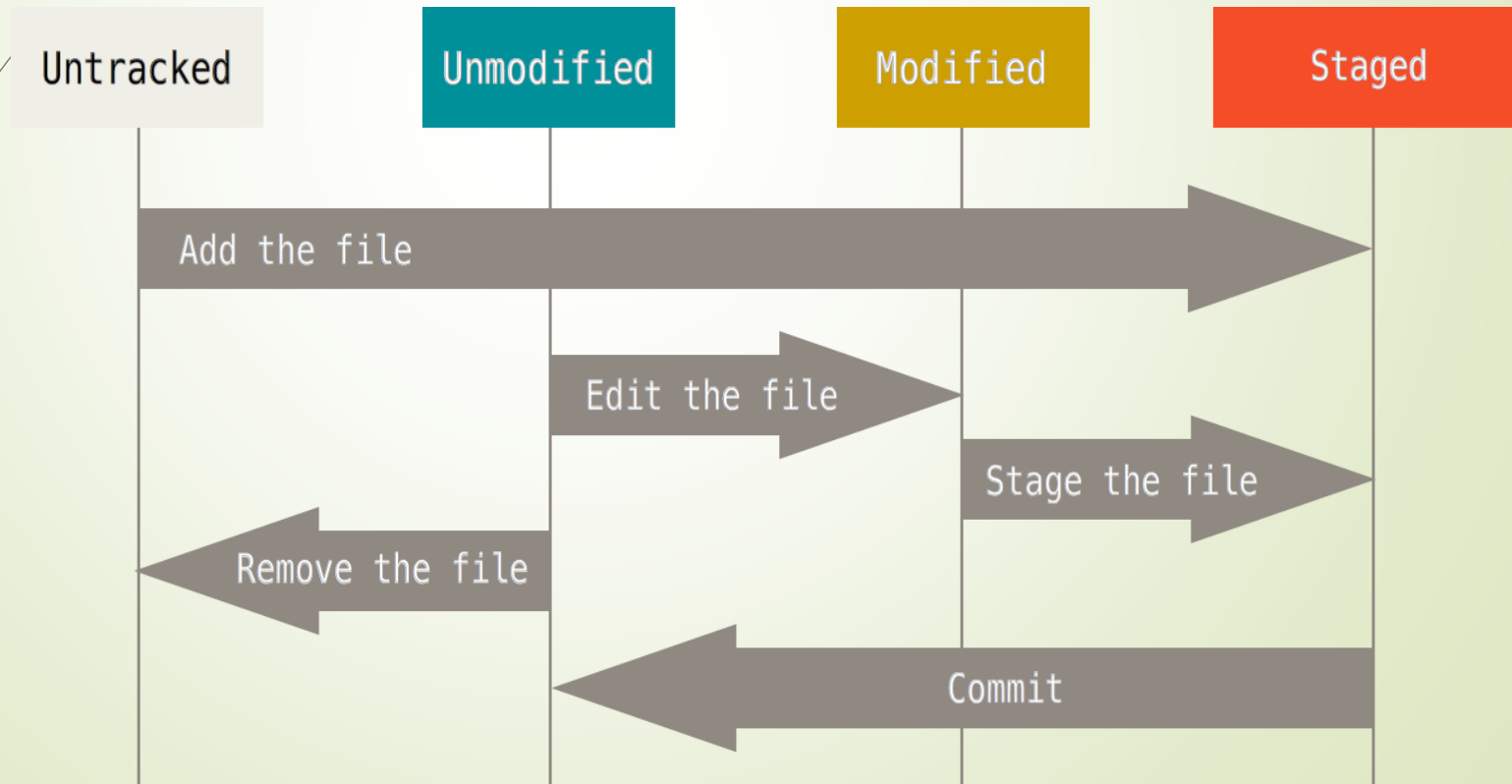
.git directory
(Repository)


Checkout the project

Stage Fixes

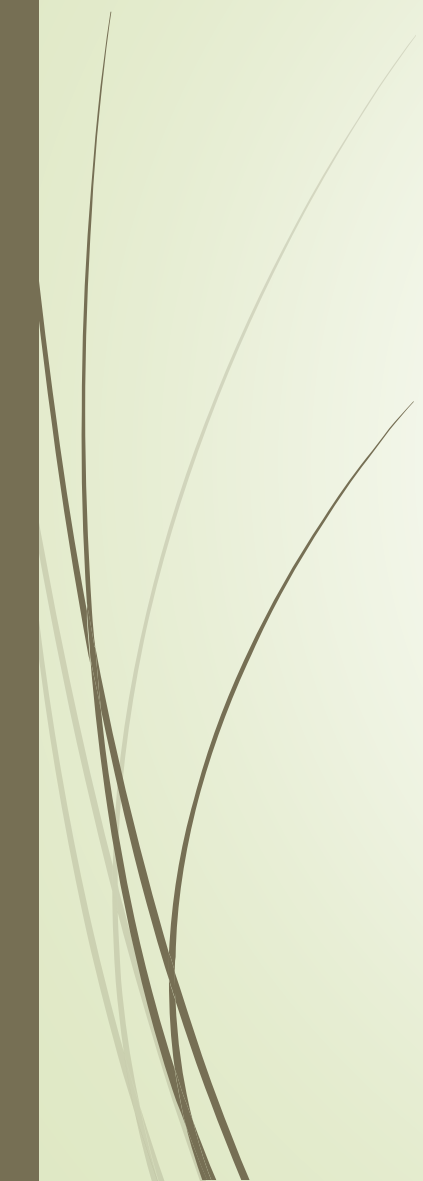
Commit

The lifecycle of the status of your files.





Benefits of using VCS

- Backup and Restore
 - Sync with Multiple computers
 - Working in a team
 - Safely create/test new features
 - Ownership/Credits/Blame
- 



Jargon

- **Repository:** Database where files are stored.
- **Server:** The computer storing the repository.
- **Client:** the computer connecting to the repository.
- **Working Copy:** Your local directory of files.
- **Trunk/main:** Master location for code in the repository.
- **Head:** latest revision on the repository.



Basic Actions

- **Add:** Place a file under revision control.
- **Check in:** Send local changes to the repo.
- **Check out:** Download from the repo to your working copy.
- **Ignore:** Allows files to exist in your working copy but not in the repo.
- **Revert:** Throw away your working copy and restore last version.
- **Update/Sync:** Update your working copy to the latest revision.



Advance Actions

- **Diff/Change:** Specific modification to a document.
- **Branch:** Duplicate copy of code used for feature development.
- **Merge:** Integrate changes from two different branches.
- **Conflict:** Inability to reconcile changes to a document.
- **Resolve:** Manual fixing of conflicted document changes.
- **Locking:** Prevent other developers from making changes.

Preguntas

