

Git

The Distributed Revision Control System

JMCT

SEPR

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Git Internals

- ▶ Git represents the history of a repository as a DAG
- ▶ Each snapshot (commit) uses SHA-1 for a unique identifier
- ▶ Git is distributed, there is no central repository

Git objects

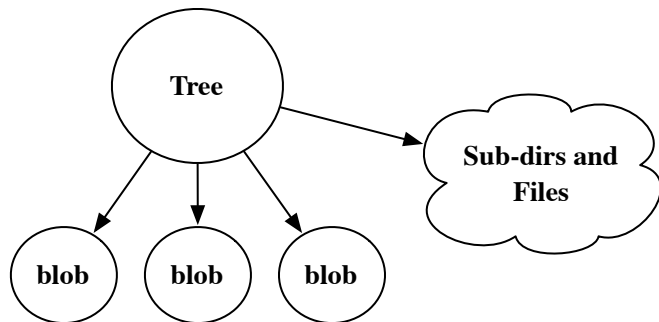


Figure: Directory and Files

Git objects

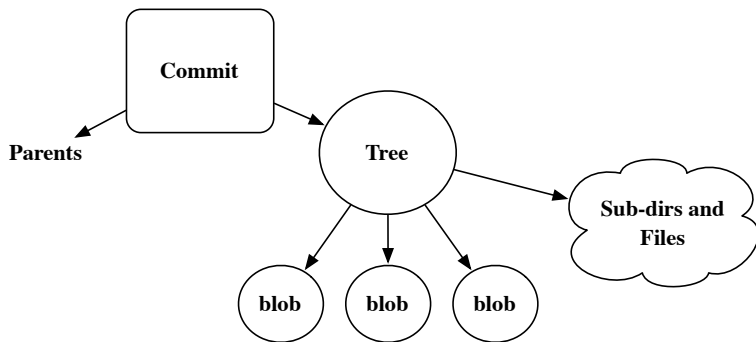


Figure: A Commit

Git objects

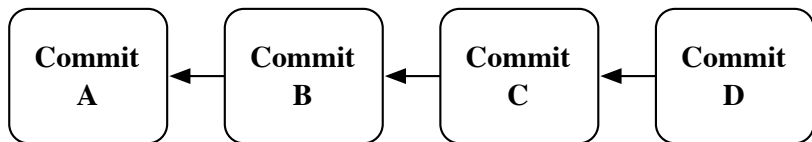


Figure: A Series of Commits

Git objects

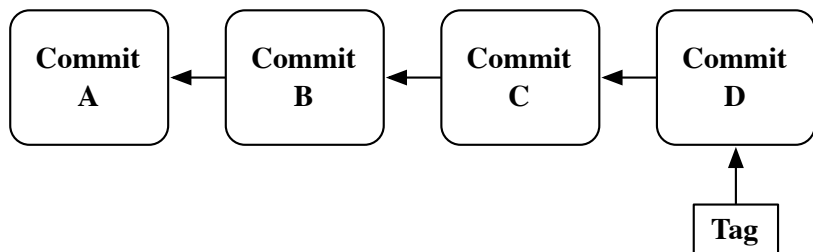


Figure: A Tag

Git objects

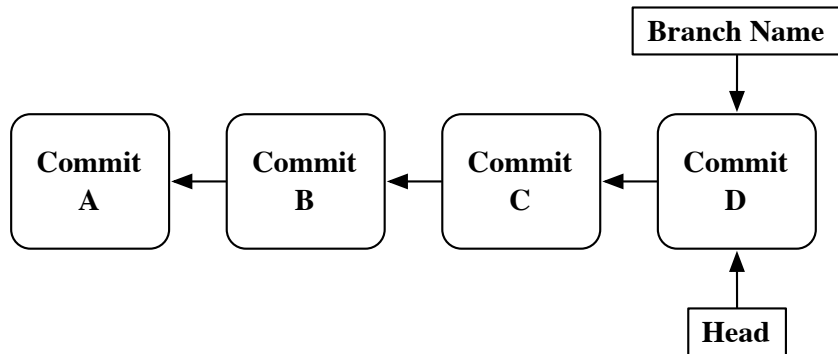


Figure: Head

Git objects

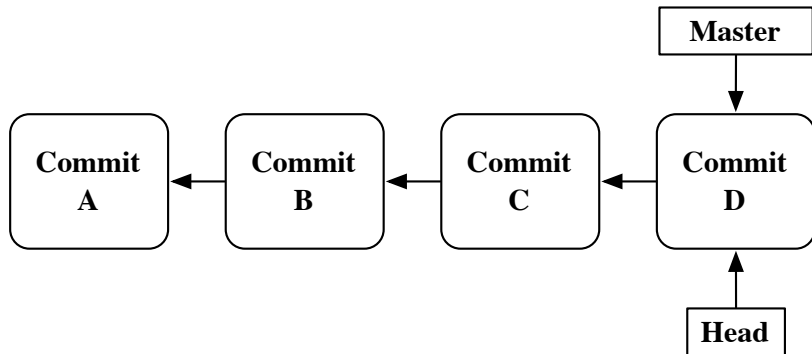


Figure: Master

Git objects

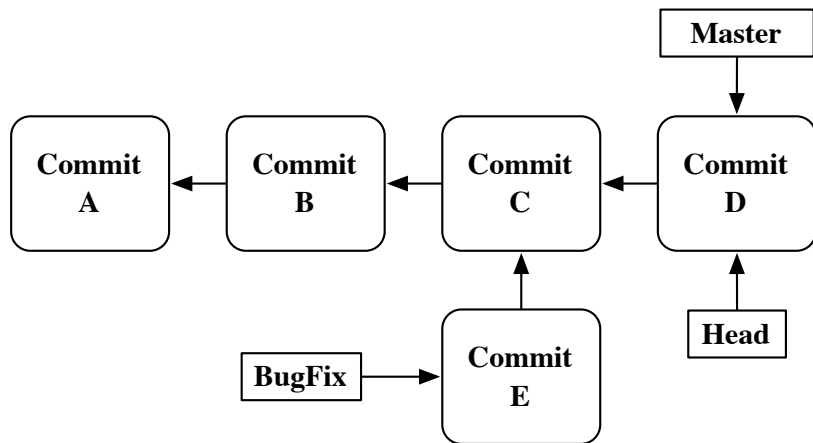


Figure: Branching

Merging and Rebasing

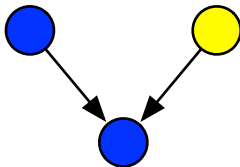


Figure: Two Branches

Merging and Rebasing

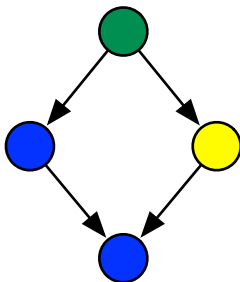


Figure: Two Branches Merged

Merging and Rebasing

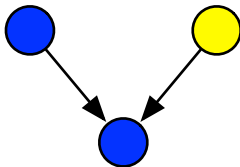


Figure: Two Branches

Merging and Rebasing

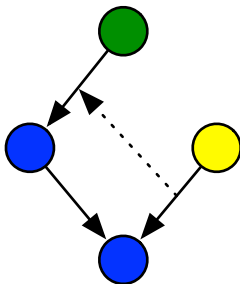


Figure: Rebase Commit

End of Slides!

Now for some demonstrations!