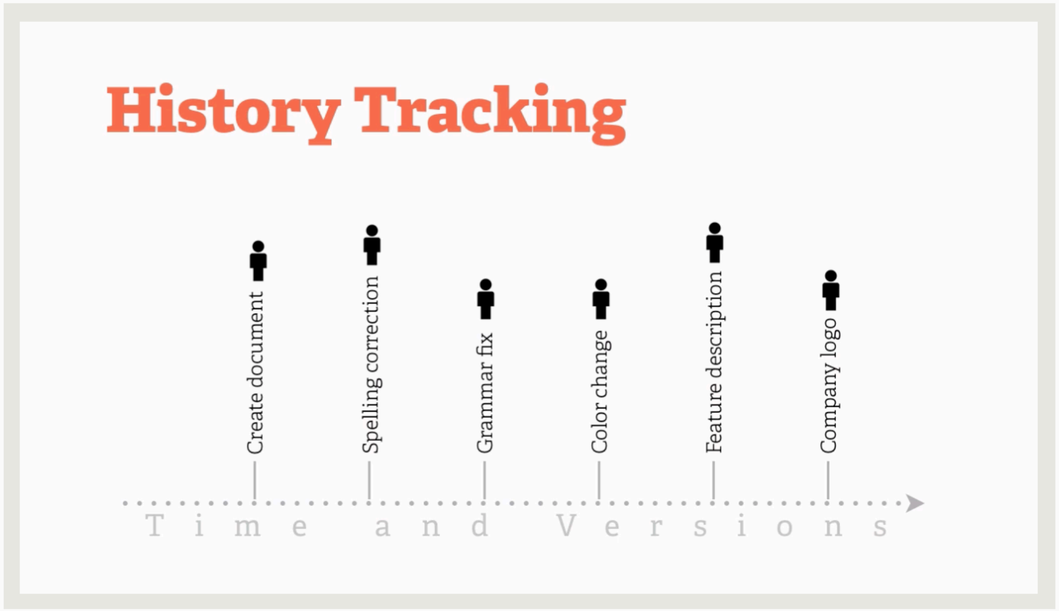
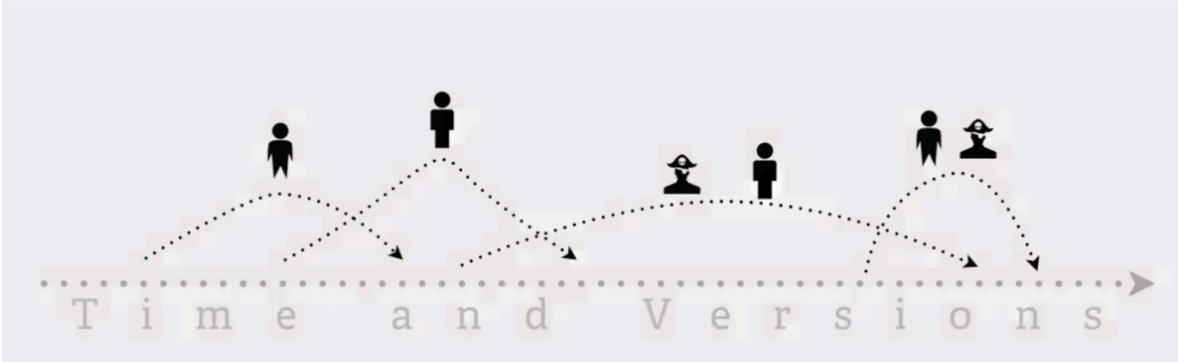
GIT & GITHUB

VERSION CONTROL

What is Version Control?





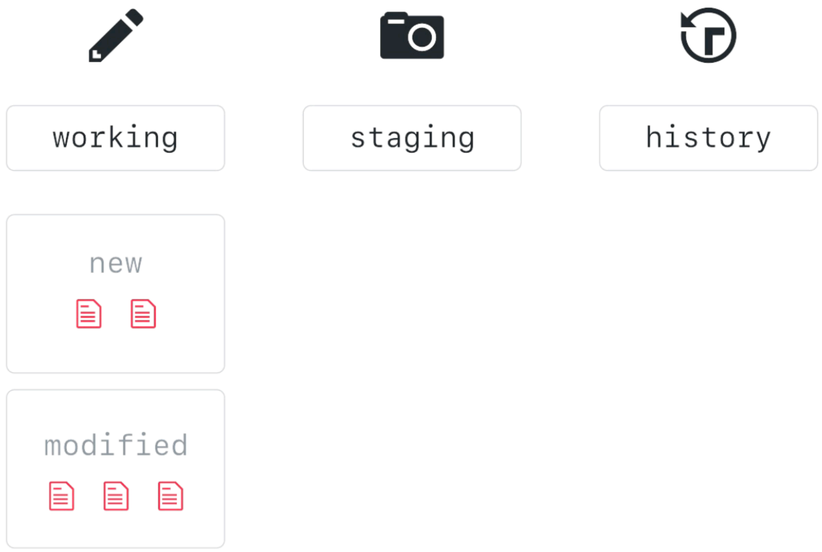
GIT & GITHUB

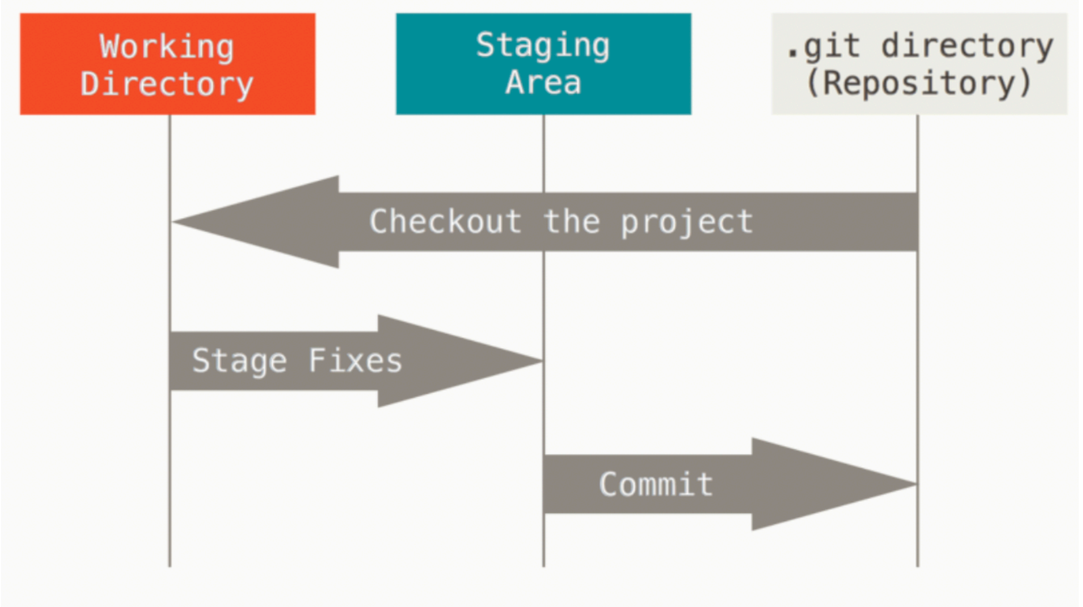
Git is a free and open source distributed version control system designed to handle everything from small to very large projects with speed and efficiency.

GitHub is a collaboration platform built on top of a distributed version control system called Git.

A Git repository is a virtual storage of your project. It allows you to save versions of your code, which you can access when needed.

GIT WORKING MECHANISM



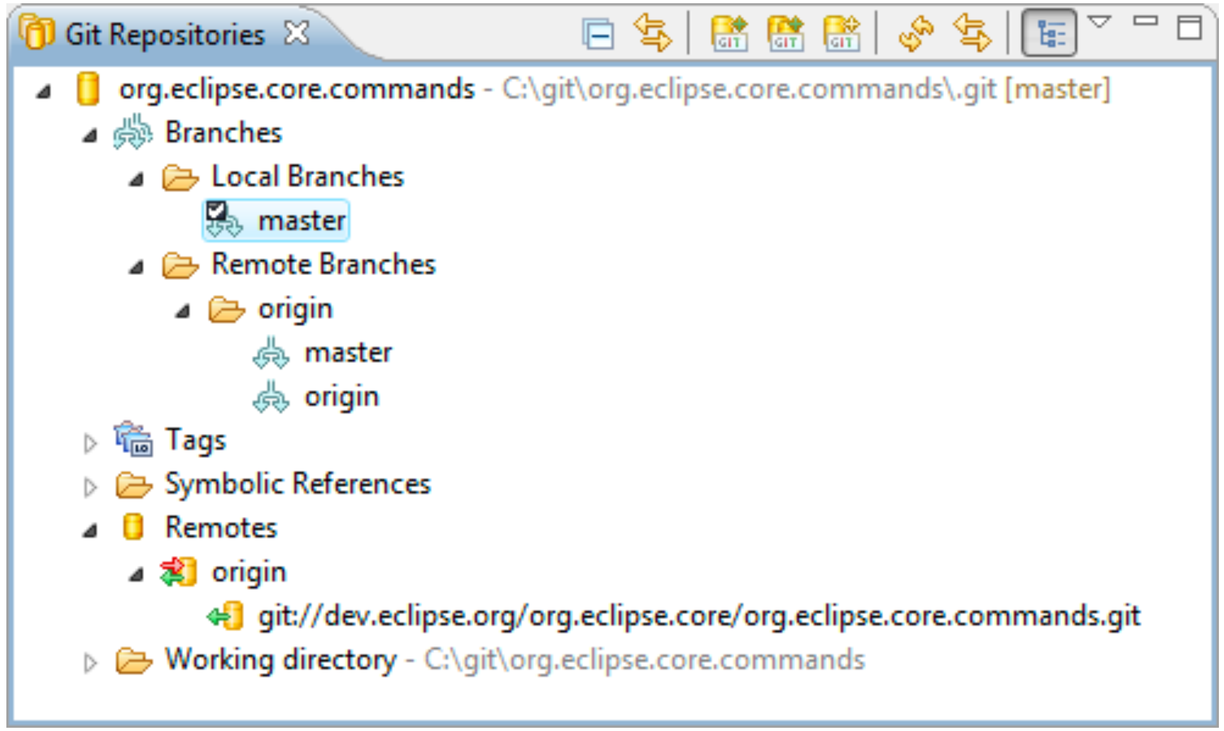


EGIT-ECLIPSE

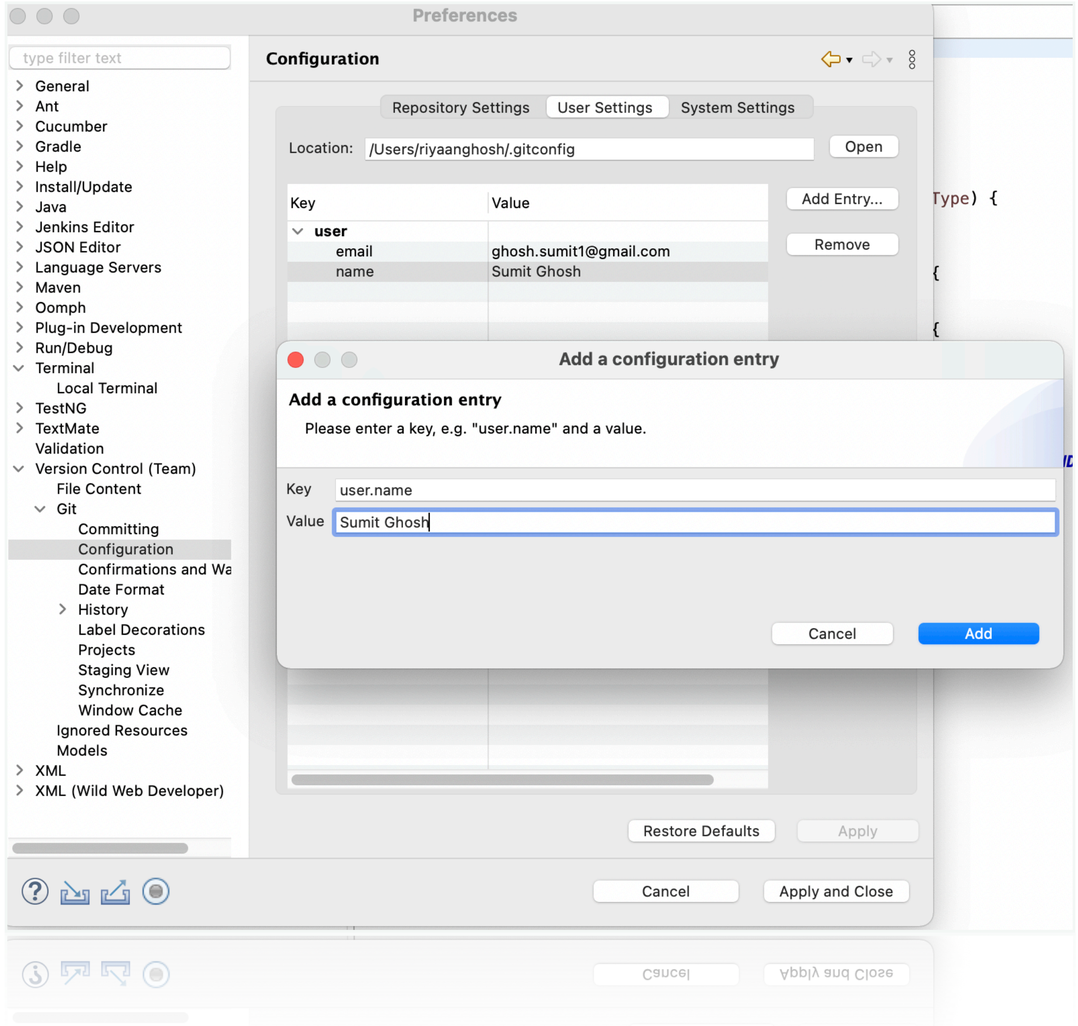
EGIT

EGit is an Eclipse Team provider for the Git version control system.

Git is a distributed SCM, which means every developer has a full copy of all history of every revision of the code, making queries against the history very fast and versatile.



CONFIGURATION



Window > Preferences > Team > Git > Configuration

CREATE REPOSITORY

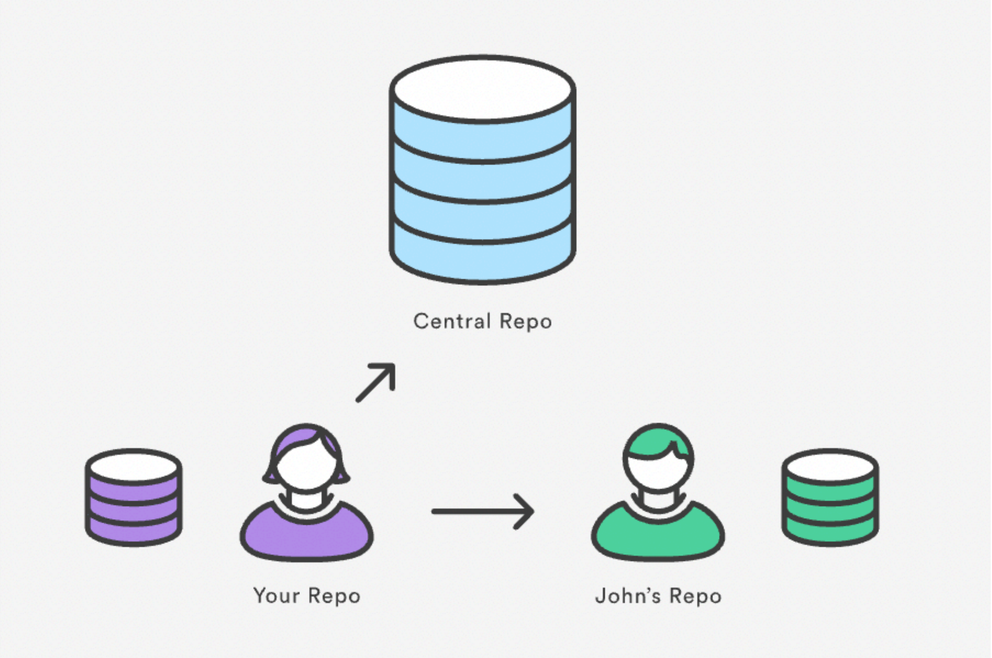
- Create Repository
- Commit
- Inspect History
- Commit Reverse
- Stashes
- Git Ignore
- Add Index

BRANCHES

- Create Branch
- Checkout Branches
- Merge Branch

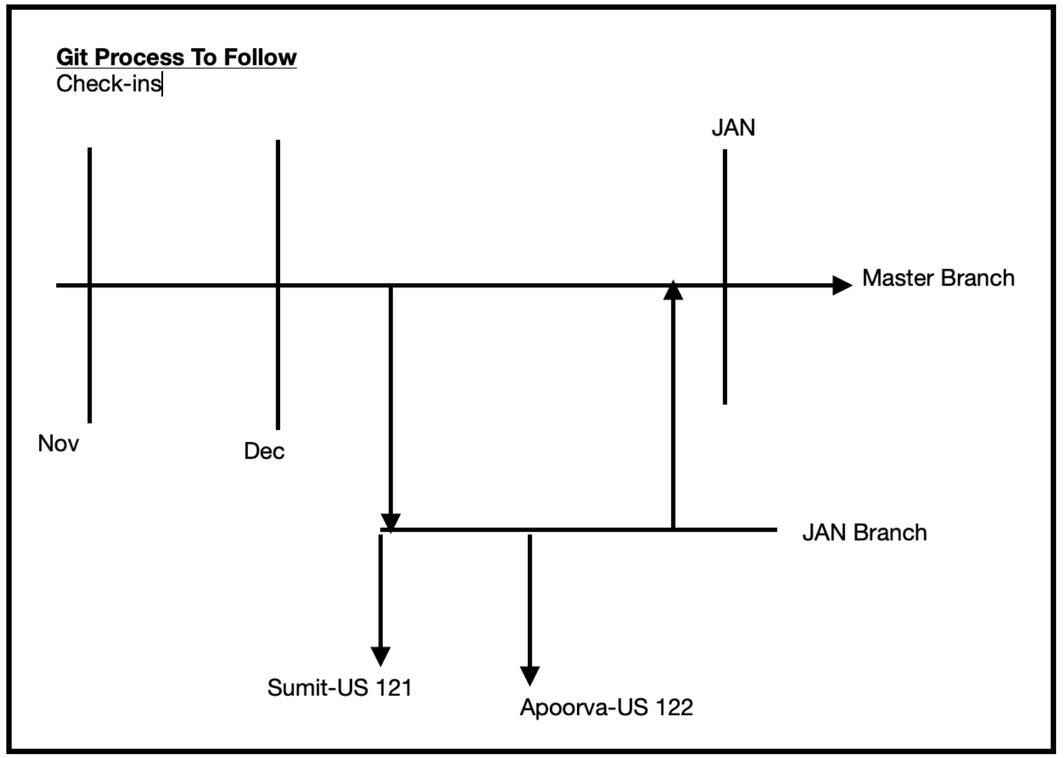
GITHUB

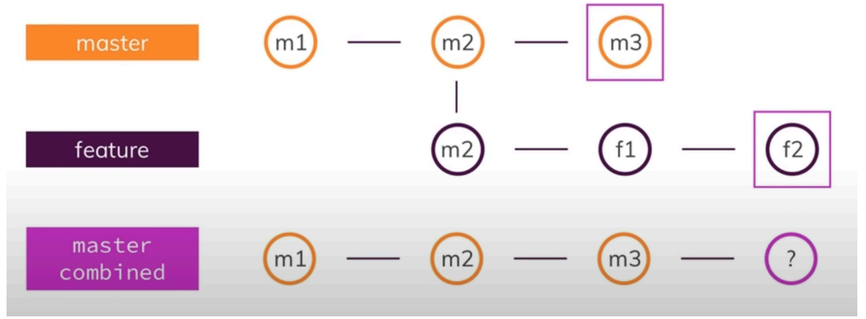
- CREATE GITHUB REPO
- CONNECT LOCAL REPO
- GIT PUSH
- GIT PULL
- EXISTING REPO



WORKING WITH TEAM

- Code Management
- Resolve Git Conflicts
- Git Rebase
- Pull Request





GIT BASH

GIT BASH

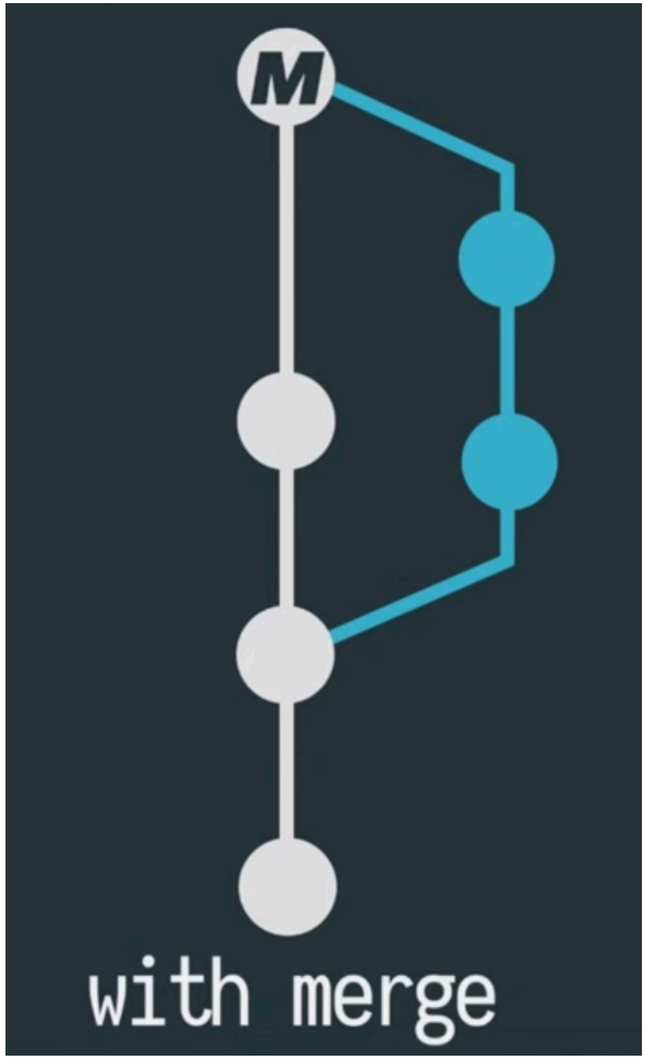
- Setup Git Bash
- Git version
- Local Repository
  - Git init
  - Git status
  - Git add
  - Git commit -m “message”

Git –help

```
These are common Git commands used in various situations:

start a working area (see also: git help tutorial)
   clone     Clone a repository into a new directory
   init      Create an empty Git repository or reinitialize an existing one

work on the current change (see also: git help everyday)
   add       Add file contents to the index
   mv        Move or rename a file, a directory, or a symlink
   restore   Restore working tree files
   rm        Remove files from the working tree and from the index

examine the history and state (see also: git help revisions)
   bisect    Use binary search to find the commit that introduced a bug
   diff      Show changes between commits, commit and working tree, etc
   grep      Print lines matching a pattern
   log       Show commit logs
   show      Show various types of objects
   status    Show the working tree status

grow, mark and tweak your common history
   branch    List, create, or delete branches
   commit    Record changes to the repository
   merge     Join two or more development histories together
   rebase    Reapply commits on top of another base tip
   reset     Reset current HEAD to the specified state
   switch    Switch branches
   tag       Create, list, delete or verify a tag object signed with GPG

collaborate (see also: git help workflows)
   fetch     Download objects and refs from another repository
   pull      Fetch from and integrate with another repository or a local branch
   push      Update remote refs along with associated objects
```

WORKING WITH BRANCH

- Working with Branch
  - Git branch
  - Git Checkout
  - Git Fetch
  - Git log
- Merge Branch
  - Git merge



REMOTE REPOSITORY

- Git remote
- Git push
- Git pull
- Git clone

RESOURCES

- https://gitexplorer.com/
- https://git-scm.com/
- https://github.com
- https://www.atlassian.com/git/tutorials/what-is-git
- https://www.youtube.com/watch?v=CRlGDDprdOQ