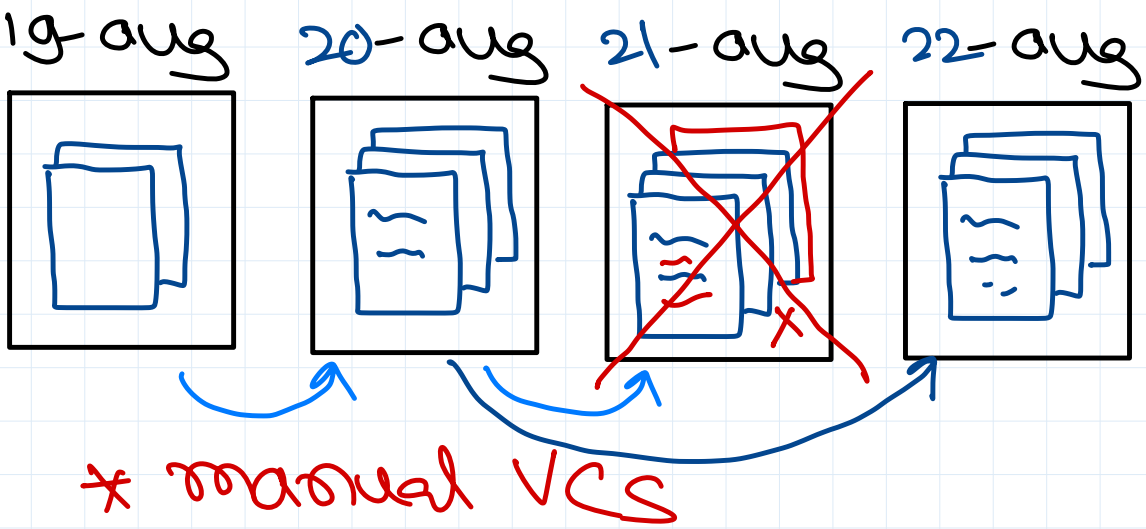
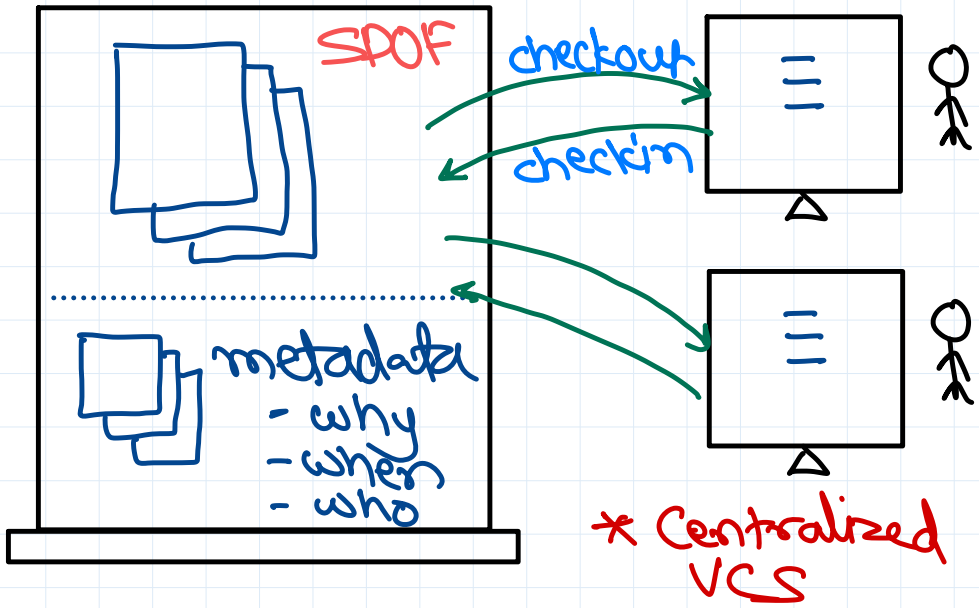
GIT

Trainer: Nilesh Ghule

Version Control System

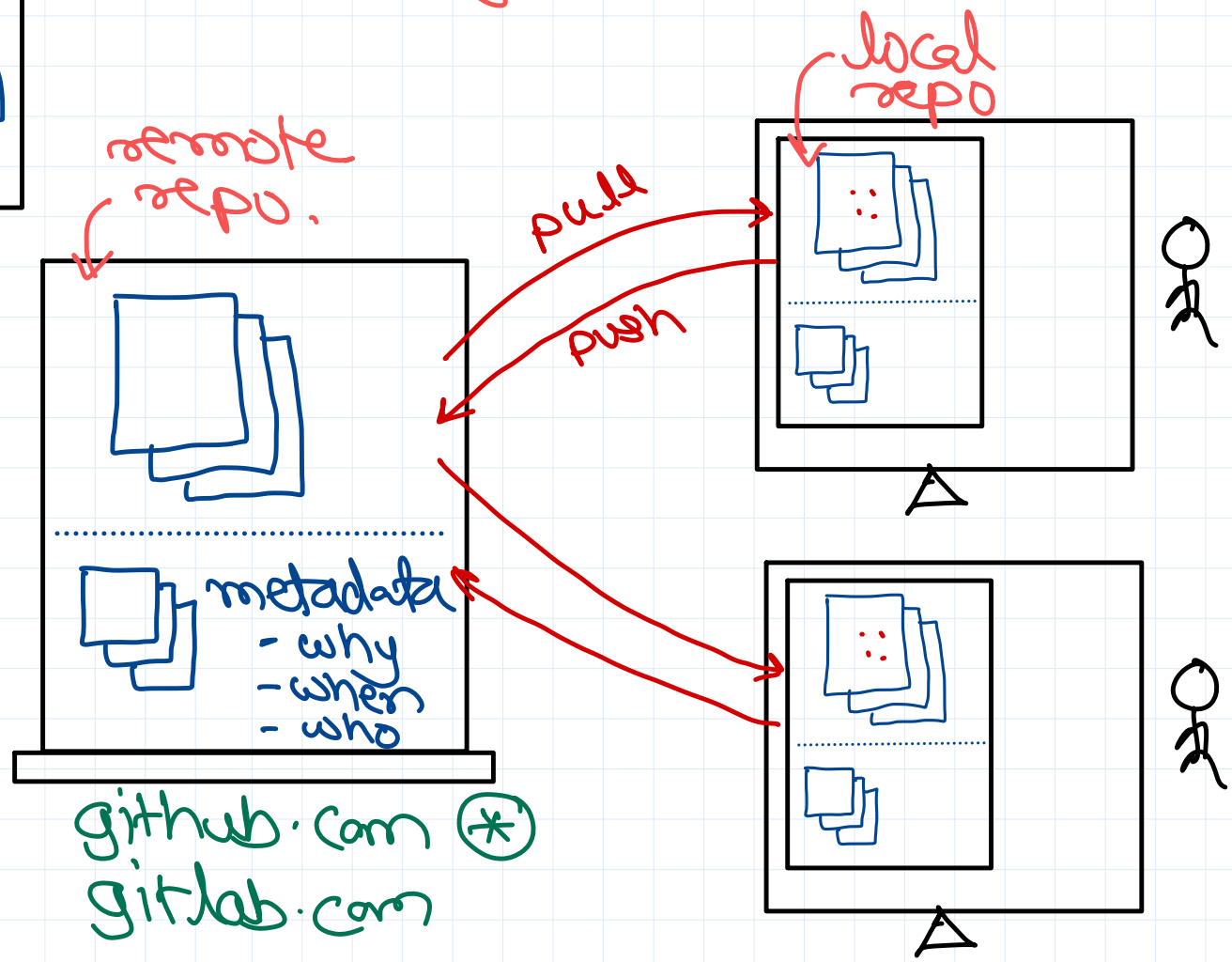


* manual VCS



* Centralized VCS

* Distributed VCS
e.g. GIT.



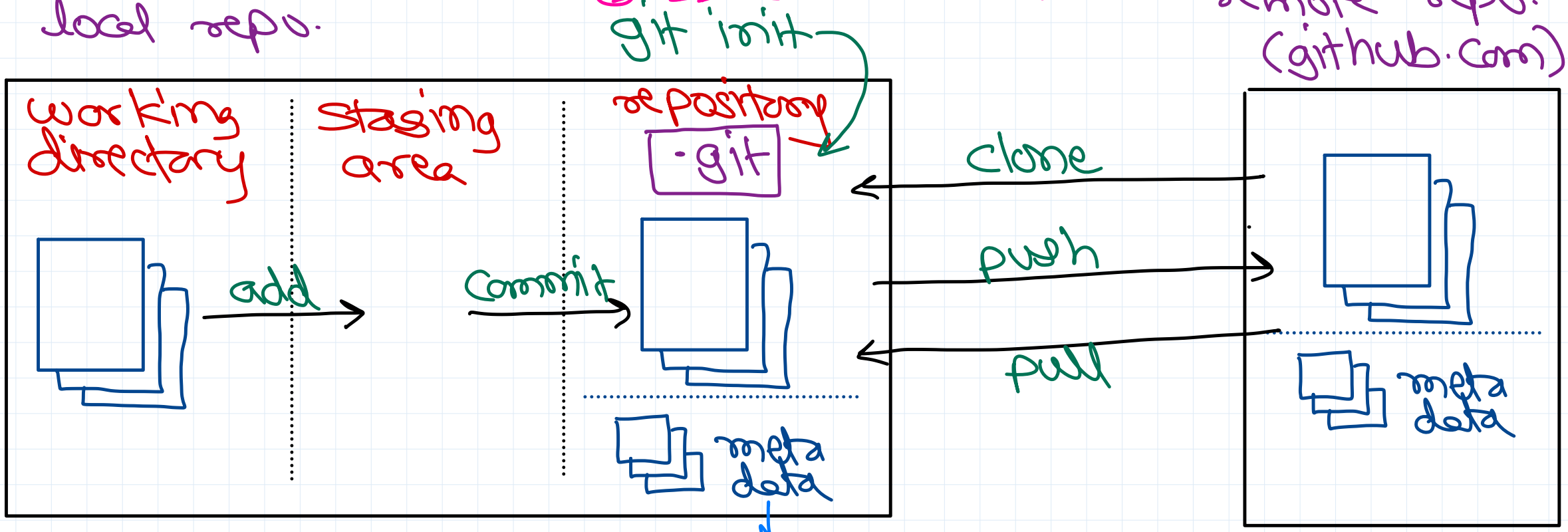
github.com (*)
gitlab.com

Nilesh Ghule

GIT architecture

local machine
1. git bash
2. IDE (VScode, Eclipse, ...)

local repo.



git config
- user.name
- user.email

- when
- why
- who

Git installation & setup

- On Ubuntu
  - sudo apt-get install git
- List global settings
  - git config --global --list
- Set up global properties
  - git config --global user.name <your name>
  - git config --global user.email <your email>
  - git config --global core.editor <editor app>
- GIT user details are associated with each commit done by the user.

- On Windows
  - Download and install GIT.
    - https://git-scm.com/downloads
  - Installed components
    - GIT bash
    - git-gui + gitk
  - GIT Bash
    - git command
    - bash commands
    - vim editor
- In editor/IDE
  - All leading IDEs have GIT support.
  - VS Code, Eclipse, …

GIT commands

- terminal> git init

- terminal> git status
- terminal> git status –s

- terminal> git add <file-path>
- terminal> git add <dir-path>

- terminal> git commit –m "message"

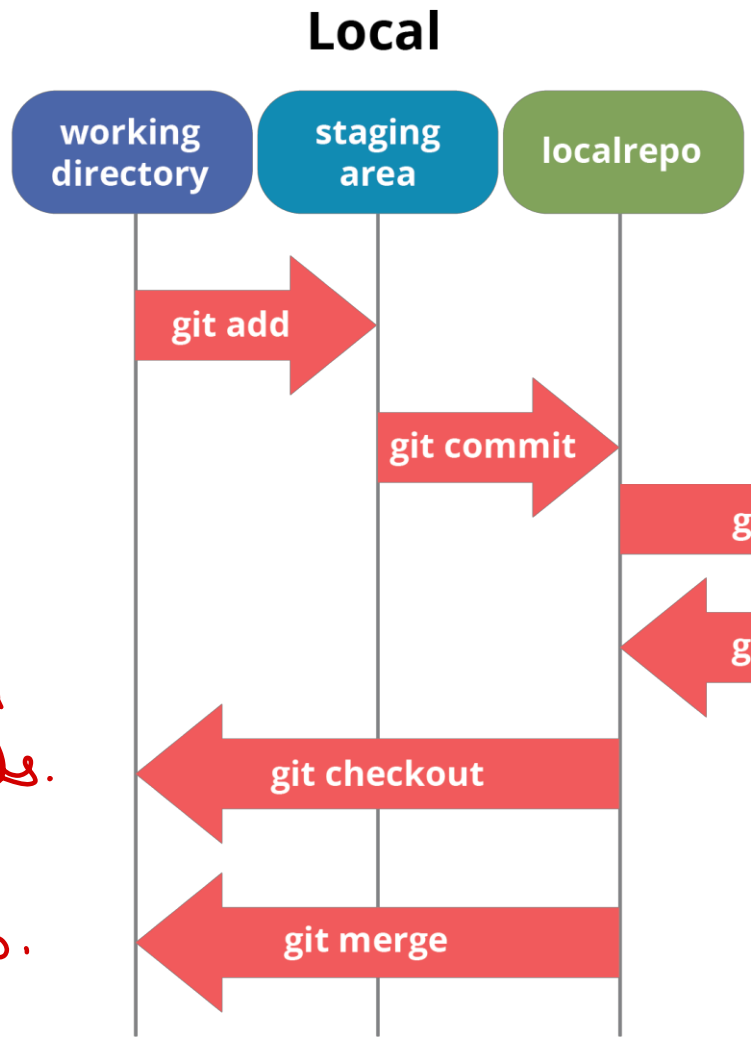
- terminal> git diff (track changes that are not staged)

- terminal> git checkout <file-path> (discard changes & get last committed version)

- terminal> git reset (unstage the changes)

- terminal> git reset --hard (unstage the changes and replace with last committed version)

advanced Commands. ignore for now.

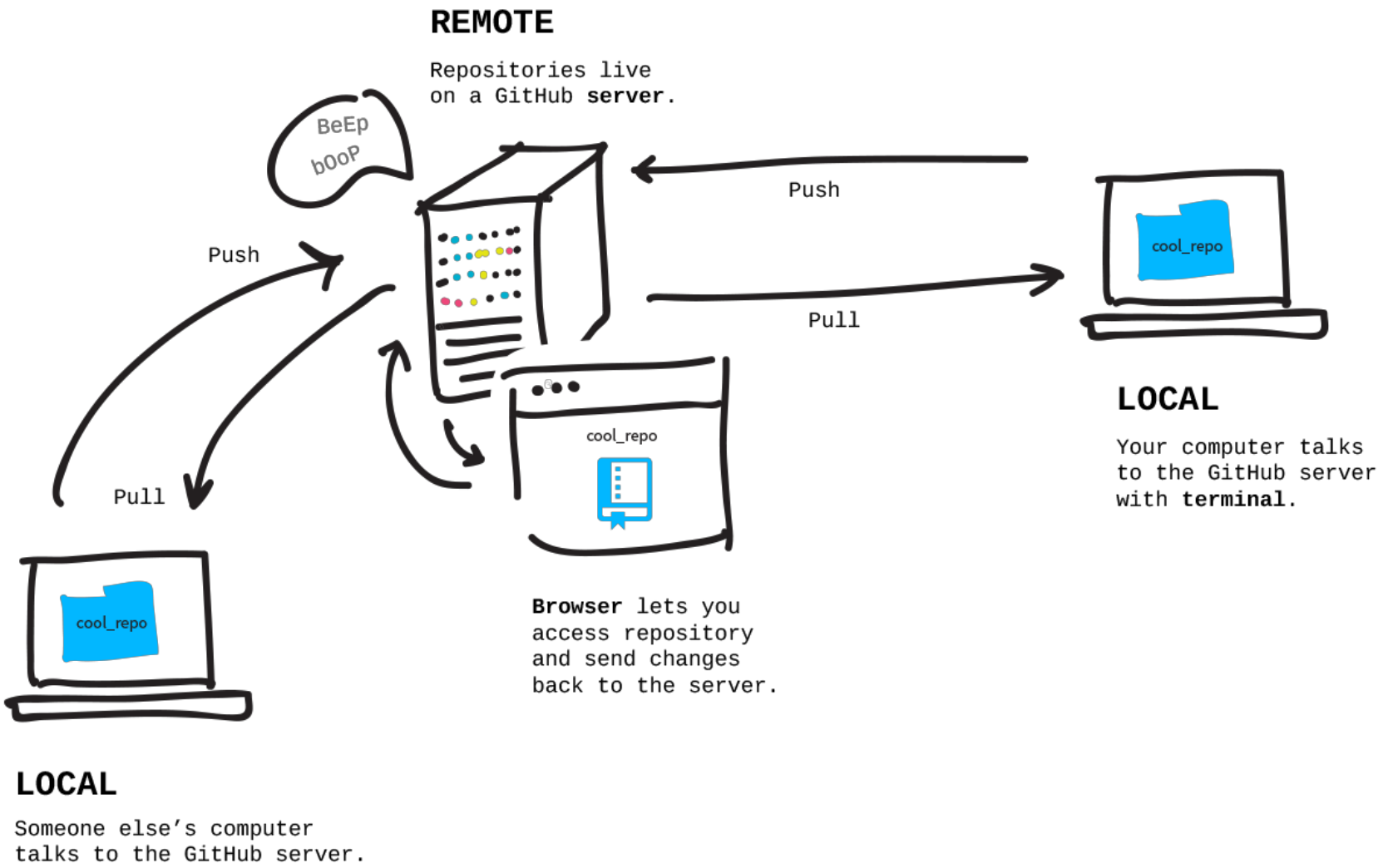


.gitignore

- List directories or files to be ignored for git repository.
- Used to ensure that binaries, IDE metadata files and other undesired files are not maintained in git repository.

GIT Remote repository

- To maintain code repository at centralized location (for code sharing).
- Can be in intranet or internet.
- Popular vendors
  - github.com
  - gitlab.com
  - bitbucket.org



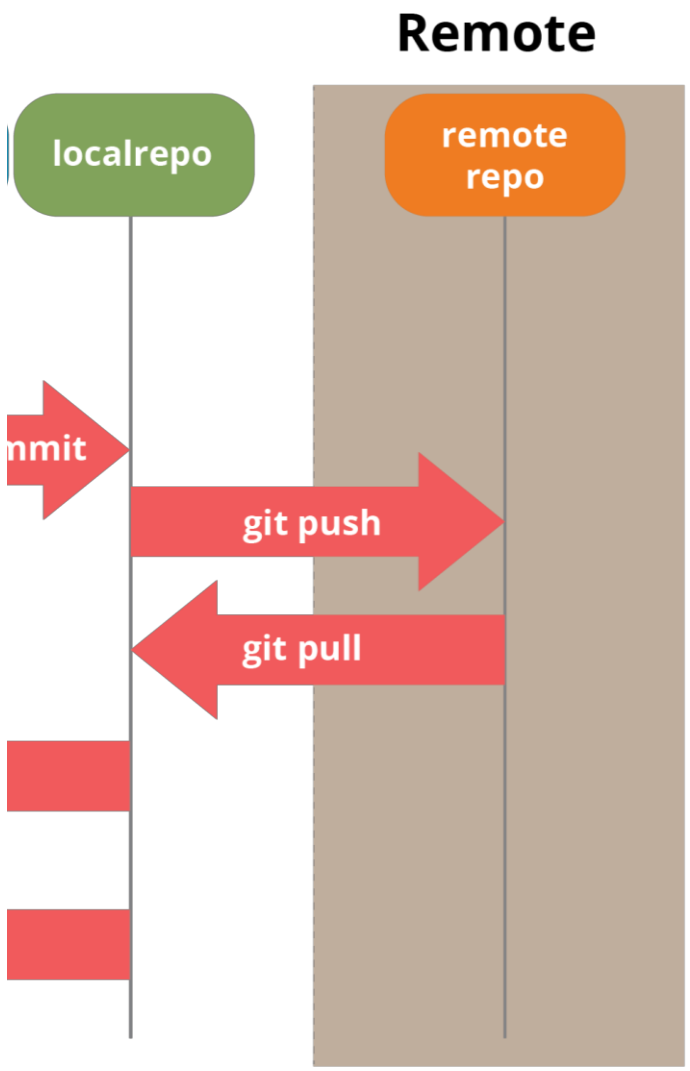
GIT commands

- git remote add origin <remote url>
- git remote -v

- git clone <url>

- git push origin <branch>
- git push

- git pull origin <branch>
- git pull



GIT workflow

- Create project on gitlab.
- Clone repository on local machine.
- Add/modify code locally.
- Commit code in local repository.
- Push code to gitlab repository.
- Other developers can pull your code.

Thank you!

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