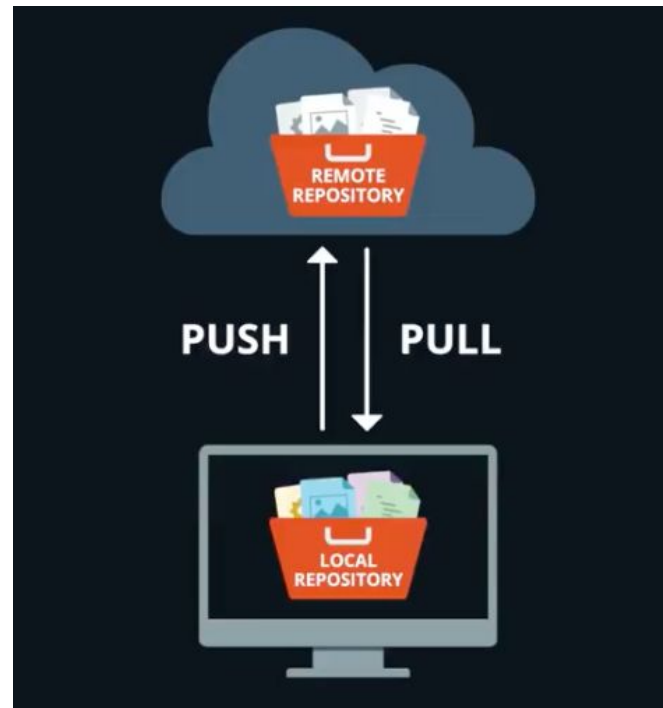




Git remote

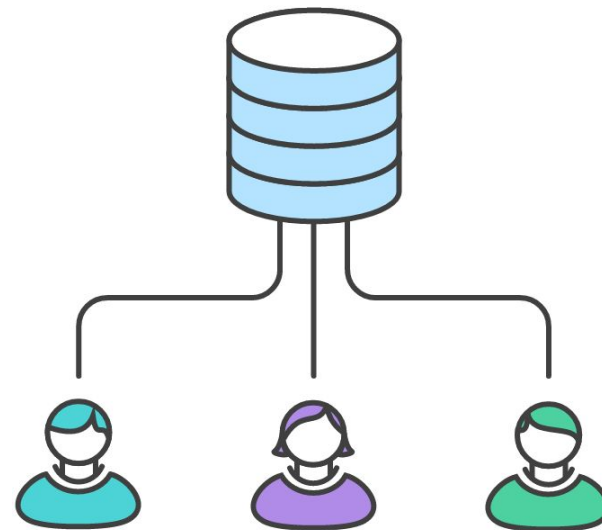


- Remote repo: Copy of your local repo hosted somewhere else
- Normally hosted on Internet





- Works as a backup for your local project
- Allows you to collaborate with others in your project

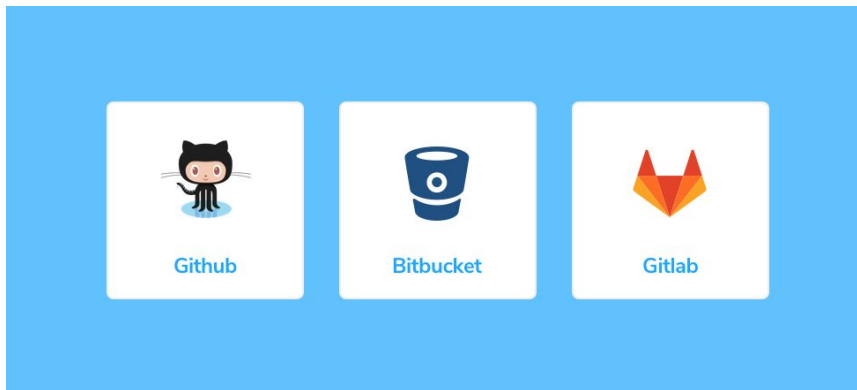




Which one should I use?

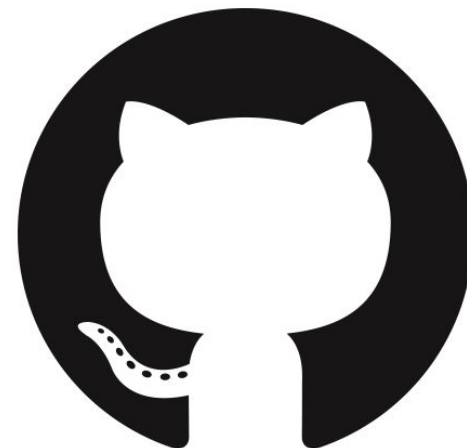


- GitHub, BitBucket, SourceForge, Launchpad, and so on and so on
- Let's console Bill Gates and use GitHub



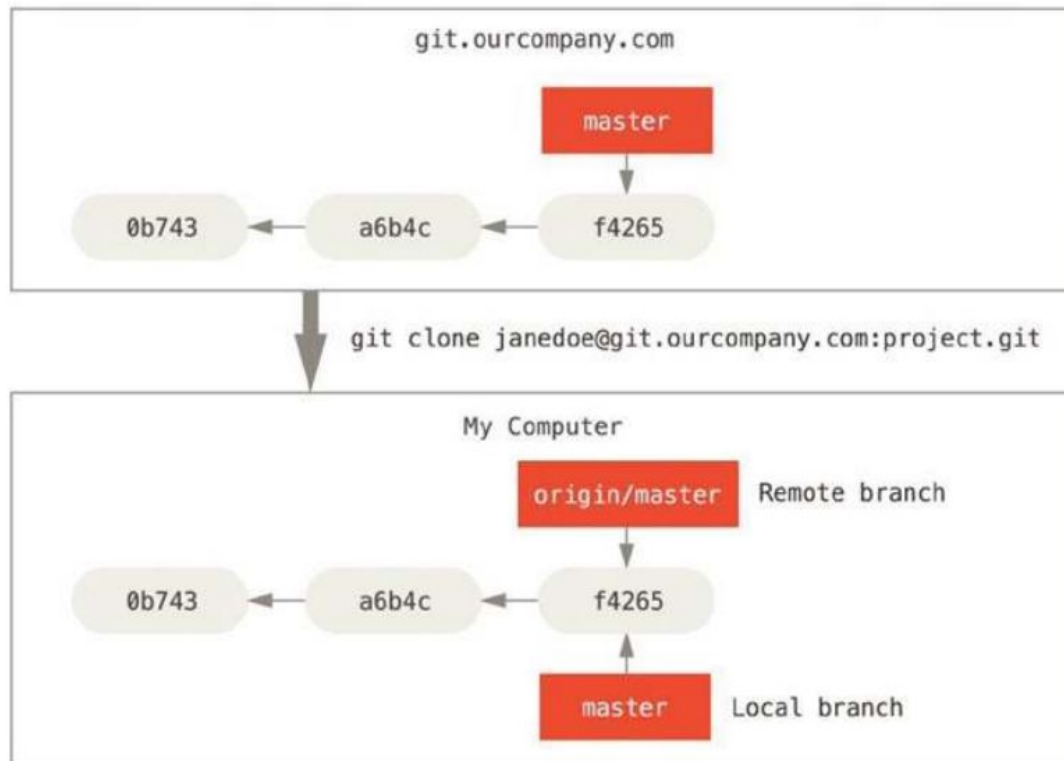


- A code hosting platform for version control
- Features
 - Pull Requests
 - Issues
 - Code Review
 - Automation
 - GitHub Pages
 - And so on and so on



- Making a copy of remote repository







git clone <repository> : Clone a repository

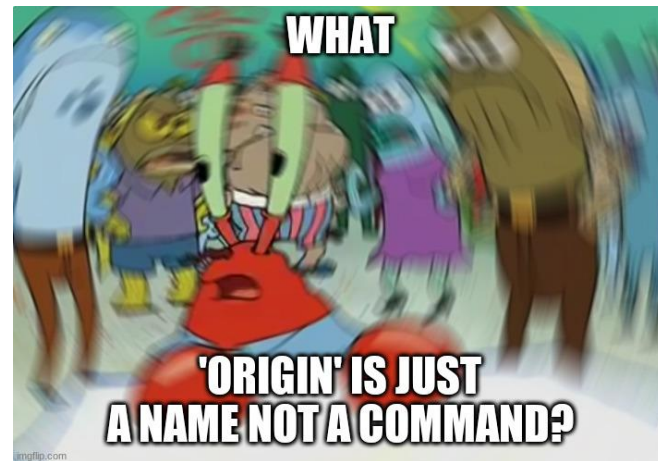
git clone <repository> <directory> : Clone a repository with specified name

git clone --depth=<depth> <repository> : create a shallow clone with history truncated to the specified number of commits

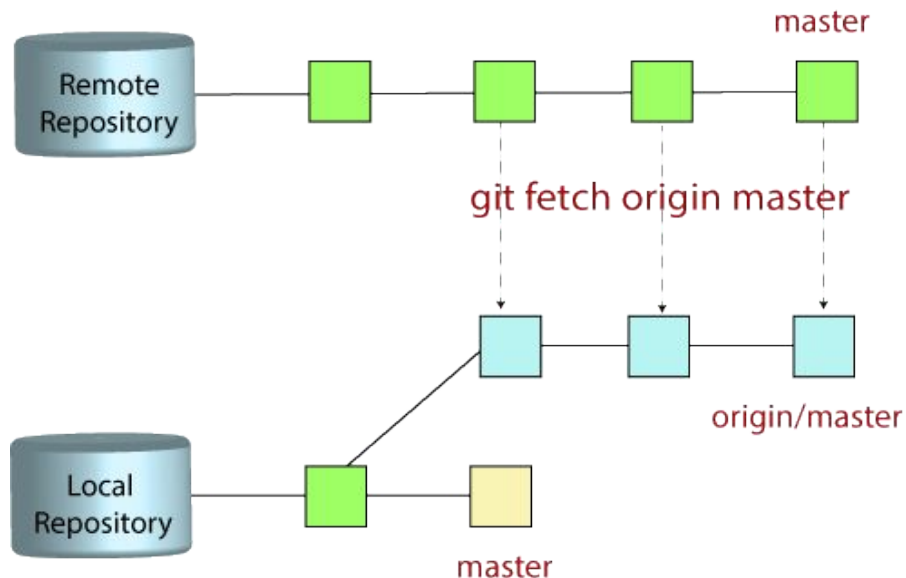
git remote : Show all the remotes

git remote -v : Show the remotes in verbose manner

- Remote is tracked using branches.
- **<remote>/<branch>** is a local branch that tracks remote branch



git fetch <remote> : Fetches branches and refs from remote

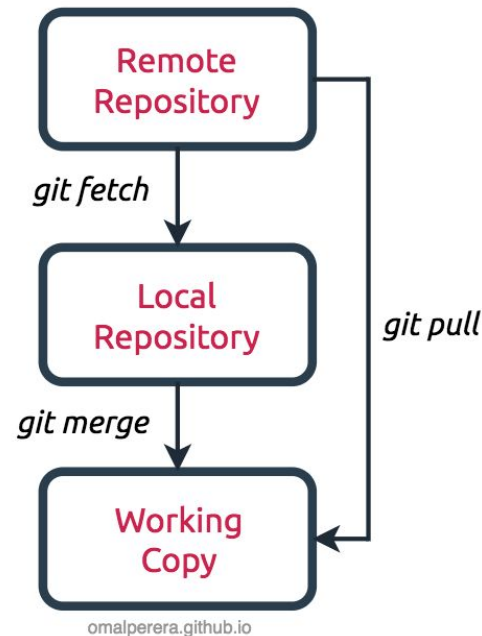




- Pulls the data to your local repo - doesn't merge them
- Use **git merge <remote>/<branch>** to merge
- Fetching and merging can be combined with **git pull <remote>**



- Fetches the remote branches and refs; and merges them to your local repo
- Can result in merge conflict
- Helps you synchronize with remote





Pushes the changes to the remote repository

- Always pull before push
- Other people have been pushing to remote
- Good practice: sync often
- **git push <remote> <local branch>** to push changes





git remote add <name> <repo> : Add specified remote repository as given name

git remote rename <from> <to> : Renames remote

git remote rm <name> : Removes the remote

git push <name> --delete <branch> : Delete remote branch

git config --global credential.helper store : Stores credentials to your disk



- Adding origin only makes your local repo aware of existence of remote
- Pulling at this stage without specifying explicitly will result in failure
- To set up corresponding remote branch for your current local branch, use
 - **git branch --set-upstream-to=<remote>/<branch>**



- ...because everybody wants to fork
- Creates a copy of the repository in GitHub server
- Any changes you make on your fork will not affect the main repository



- Beginning of your open source journey
- To propose your changes to others' project
- After you fork the repository, make changes and make a pull request
- Project owner must accept your PR for your changes to be incorporated



- Make a fork of the project you want to contribute to
- Clone your fork locally
- Create a descriptive topic branch
- Make changes to the code
- Test it out
- Commit
- Push the topic branch to your GitHub fork
- Compare and create a pull request



Enough talk!
Let's get our hands dirty