

Git Basics

OW

Agenda

- Overview and terms
- Setting up git repository
- Git commands
- Init, Add commit
- Lab

Getting a Git repository

- You typically obtain a Git repository in one of two ways:
 1. You can take a local directory that is currently not under version control, and turn it into a Git repository, or
 2. You can **clone** an existing Git repository from elsewhere.
- In either case, you end up with a Git repository on your local machine, ready for work

Git init

- If you have a project directory that is currently not under version control and you want to start controlling it with Git, you first need to go to that project's directory.
- for Linux:
 - `$ cd /home/user/my_project`
 - And type
 `git init`
 - This creates a new subdirectory named `.git` that contains all of your necessary repository files — a Git repository skeleton. At this point nothing in project will be tracked

Git add and commit

- If you want to start version-controlling for existing files , should begin tracking those files and do a initial commit.
- “git add” commands that specify files you want to track, followed by “git commit”

Lab:

```
touch License
```

```
git add License
```

```
git commit -m “first commit”
```

Cloning existing directory

- If you want to copy existing git repository – the command you need to use “git clone”.
- “git clone” will receive all data that server has

Lab

```
git clone <url>
```

```
git clone https://github.com/libgit2/libgit2
```

- That creates a directory named libgit2, initializes a .git directory inside it, pulls down all the data for that repository.
- If you want to clone the repository into a directory named something other than libgit2, you can specify the new directory name as an additional argument:

```
$ git clone https://github.com/libgit2/libgit2 mylibgit
```

Git add

- This will put the file in tracking
- File will be in stage area
- We cannot directly add the file in commit, first file has to be in stage area
- Remember that anything that is still unstaged — any files you have created or modified that you haven't run git add on since you edited them — won't go into this commit.

Git commit

- . In this case, let's say that the last time you ran `git status`, you saw that everything was staged, so you're ready to commit your changes. The simplest way to commit is to type `git commit`
- `git commit` will add all the files in the latest snapshot.
- All changes will go by default in the main branch
- Removing files for git repos: To remove a file from Git, you have to remove it from your tracked files (more accurately, remove it from your staging area) and then commit. The `git rm` command does that, and also removes the file from your working directory so you don't see it as an untracked file the next time around.