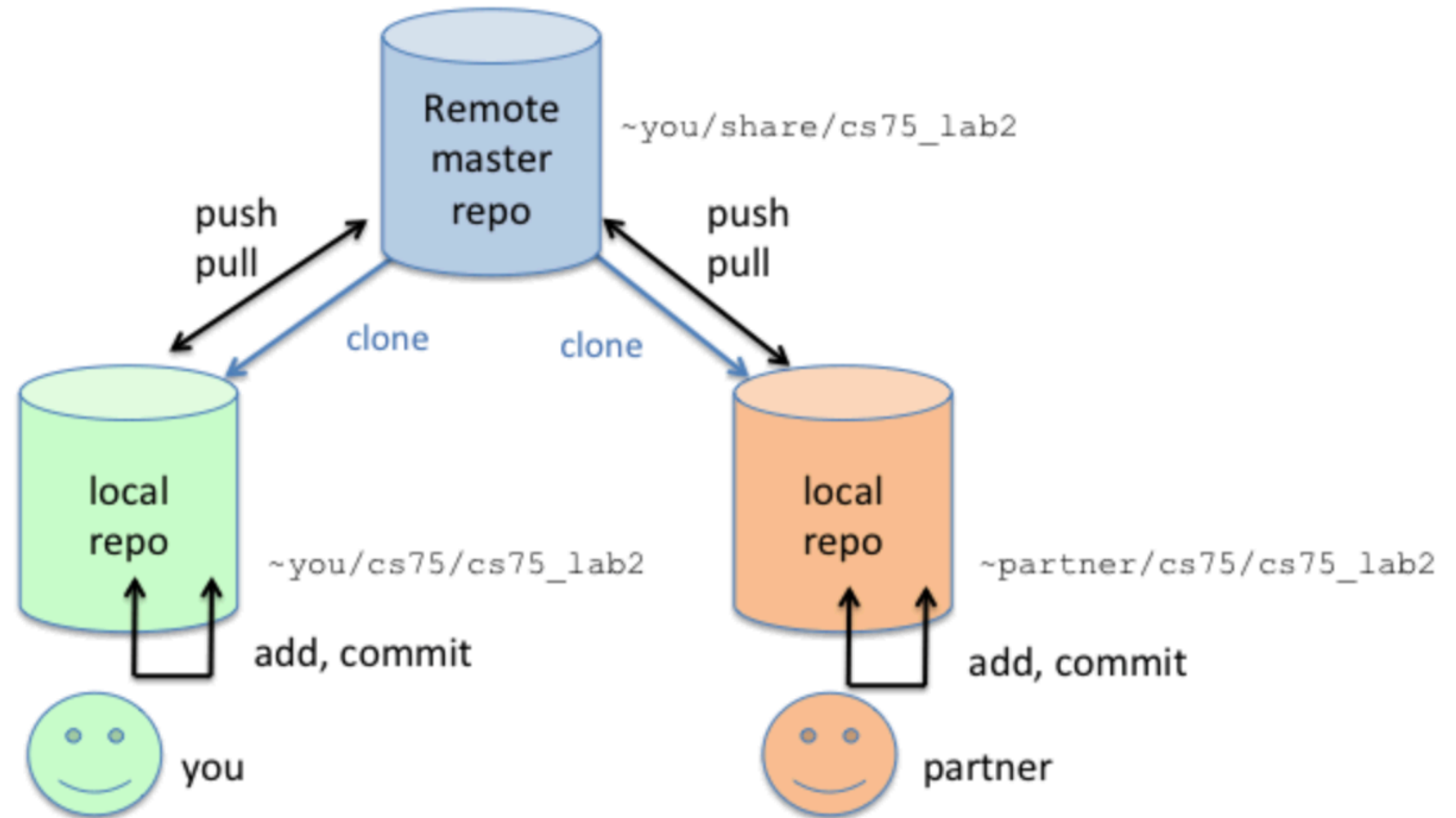


Intro to Git

ParFlow Short Course

Local and remote version controlled repositories



Fork and clone workflow

Them



You

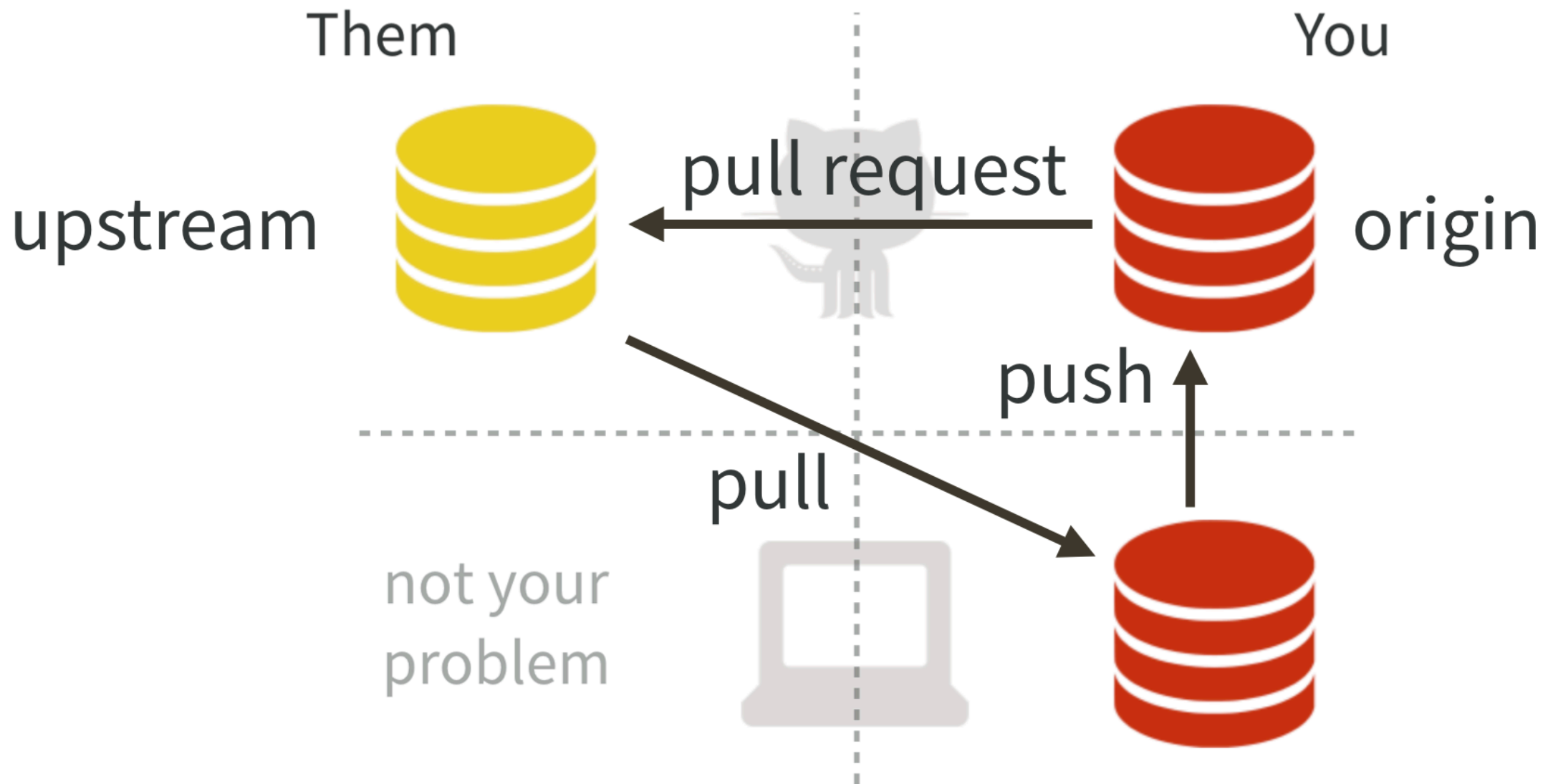


origin



not your
problem





Setting up GIT

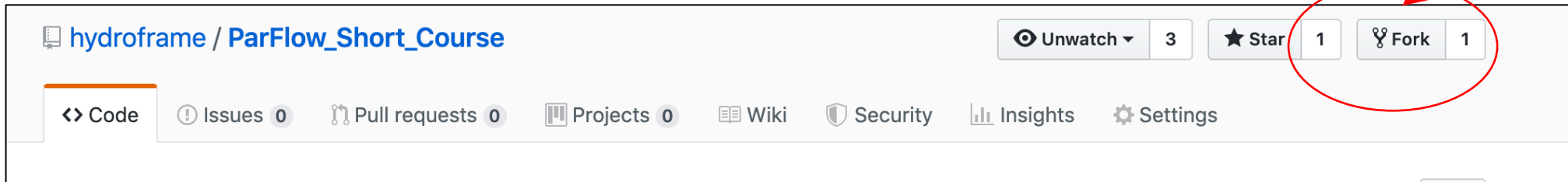
1. Sign up for a GitHub account: [Github.com](https://github.com)
2. Configure Git on your computer:

```
$ git config --global user.name "John Doe"  
$ git config --global user.email johndoe@example.com
```

Getting the repo

1. Fork the repo to make a remote copy for yourself:

https://github.com/hydroframe/ParFlow_Short_Course



2. Clone your forked Repo to get a local copy of the repo you forked

```
git clone /path/to/repository
```

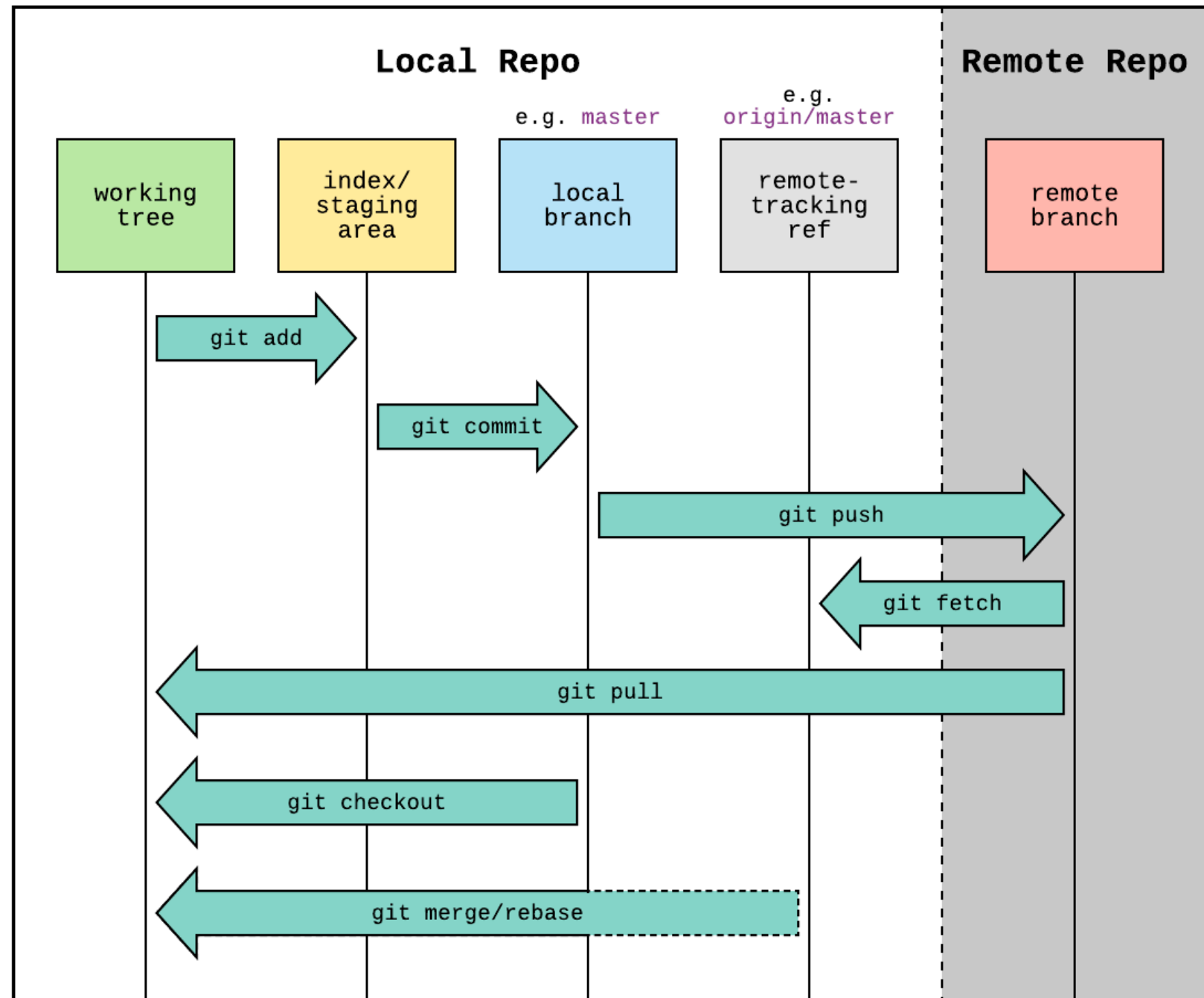
3. Add the original HydroFrame repo as your 'upstream' if you want to be able to pull from this repo in the future.

```
git remote add upstream https://github.com/hydroframe/ParFlow\_Short\_Course
```

Check your setup

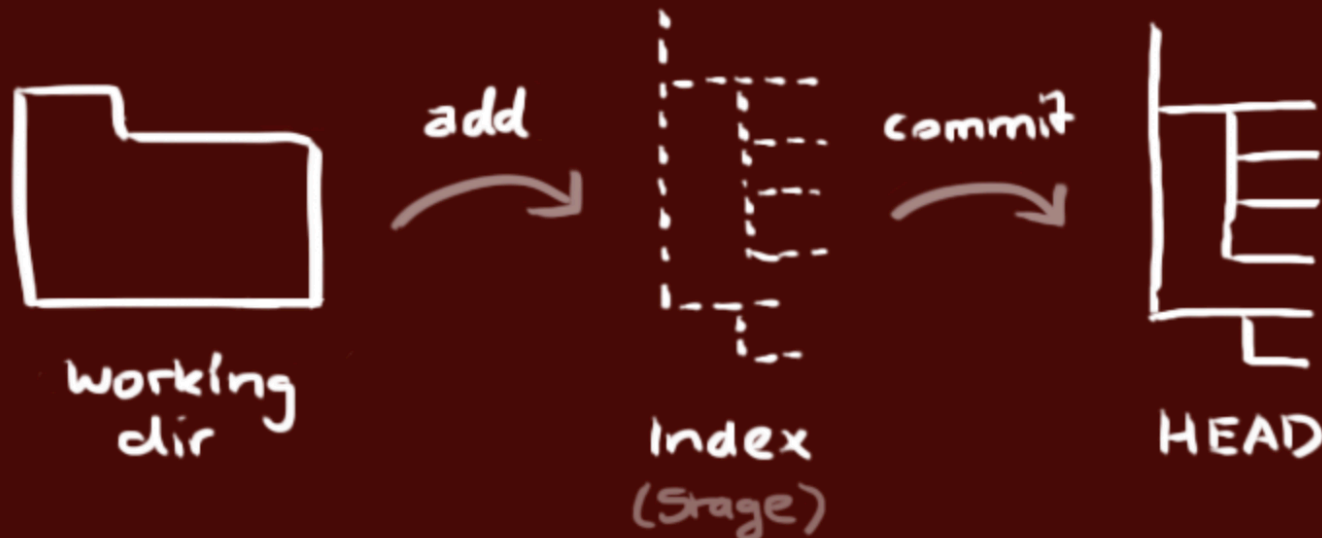
- `git status`: to see whether your local repo is up to date and what branch you are on
- `git branch`: shows you what branch you are currently working on
- `git remote`: Shows the remote repository you are connected to
- `git remote show origin`: To show the url for a given remote (in this case origin)

GitHub workflow



workflow

your local repository consists of three "trees" maintained by git. the first one is your **Working Directory** which holds the actual files. the second one is the **Index** which acts as a staging area and finally the **HEAD** which points to the last commit you've made.



add & commit

You can propose changes (add it to the **Index**) using

```
git add <filename>
```

```
git add *
```

This is the first step in the basic git workflow. To actually commit these changes use

```
git commit -m "Commit message"
```

Now the file is committed to the **HEAD**, but not in your remote repository yet.

pushing changes

Your changes are now in the **HEAD** of your local working copy. To send those changes to your remote repository, execute

```
git push origin master
```

Change *master* to whatever branch you want to push your changes to.

If you have not cloned an existing repository and want to connect your repository to a remote server, you need to add it with

```
git remote add origin <server>
```

Now you are able to push your changes to the selected remote server