

Setting up a Version Control System with Git

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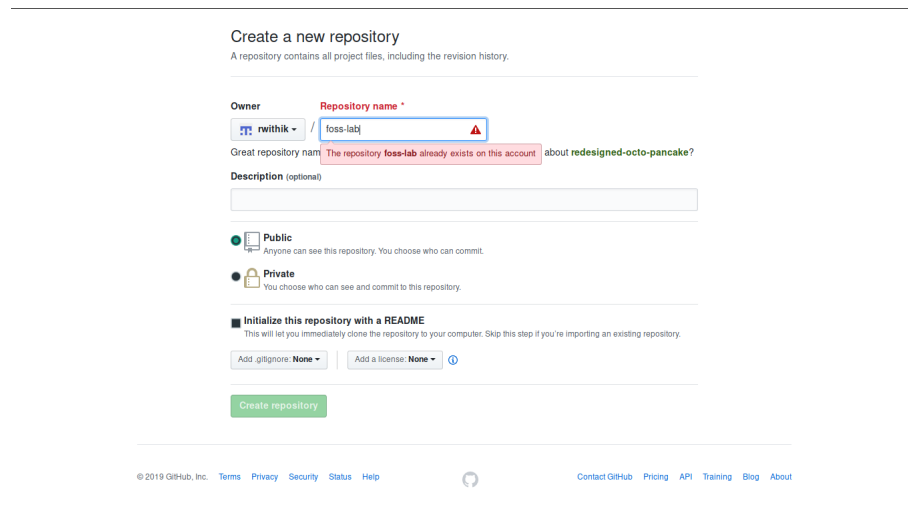
The Local Repository

The first step in using a version control system is making the actual repository. Here, I've made a directory named 'foss-lab' and converted it into a git repo by using `git init` inside the directory. This creates a `.git` directory inside the repo, which store the details about git. This directory is our local repository. I've also made a `README.md` file.

```
rwthik@Zeus ~  
» mkdir foss-lab  
rwthik@Zeus ~  
» cd foss-lab  
rwthik@Zeus ~/foss-lab  
» git init  
Initialized empty Git repository in /home/rwthik/foss-lab/.git/  
rwthik@Zeus ~/foss-lab (master)  
» echo "FOSS Lab Repo" > README.md  
rwthik@Zeus ~/foss-lab (master %)  
»
```

The Remote Repository

The local repository exists only on my system. We need to connect it to a remote repository, for any sort of collaboration to be possible. So, I made an online repo at github.com.



Now we need to connect the local repo to the online repo. This is done using the `git remote` command.
Syntax: `git remote add origin [URL]`

```
rwthik@Zeus ~  
» mkdir foss-lab  
rwthik@Zeus ~  
» cd foss-lab  
rwthik@Zeus ~/foss-lab  
» git init  
Initialized empty Git repository in /home/rwthik/foss-lab/.git/  
rwthik@Zeus ~/foss-lab (master)  
» echo "FOSS Lab Repo" > README.md  
rwthik@Zeus ~/foss-lab (master %)  
» git remote add origin https://github.com/rwthik/foss-lab  
rwthik@Zeus ~/foss-lab (master %)  
»
```

Making Changes

Any new files or any changes in existing files should be added to the local and remote repositories. This is done with the `git add` command. This add the modified and new files to the staging area. Then the files are committed with a commit message using `git commit`.