

Git Forking Workflow Lab Session

Pre-requisites

1. GitHub account.
2. Git client installed locally.
3. SSH Key Setup for GitHub. <https://help.github.com/articles/generating-a-new-ssh-key-and-adding-it-to-the-ssh-agent/> and <https://help.github.com/articles/adding-a-new-ssh-key-to-your-github-account/>
4. Run thru initial setup for Git. See lecture slides.
5. Read thru <https://www.atlassian.com/git/tutorials/comparing-workflows/forking-workflow>


Steps to Setup GitHub Repositories for Collaboration

1. Choose one person in your team to be the “scrum master”.
2. Scrum Master should now create a repository in their GitHub called “csye6225-git-demo”

Create a new repository Scrum master only


A repository contains all the files for your project, including the revision history.


Owner **Repository name**

 tejasparikh / csye6225-git-demo ✓

Great repository names are short and memorable. Need inspiration? How about **scaling-dollop**.

Description (optional)

☐  **Public**
Anyone can see this repository. You choose who can commit.

☒  **Private**
You choose who can see and commit to this repository.

☐ **Initialize this repository with a README**
This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

ⓘ

Create repository

3. Import code from the starter application at <https://github.com/tejasparikh/csye6225-spring2018-starter>

Quick setup — if you've done this kind of thing before

Set up in Desktop

 or

HTTPS

SSH

git@github.com:tejasparikh/csye6225-git-demo.git

We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

...or create a new repository on the command line

```
echo "# csye6225-git-demo" >> README.md
git init
git add README.md
git commit -m "first commit"
git remote add origin git@github.com:tejasparikh/csye6225-git-demo.git
git push -u origin master
```

...or push an existing repository from the command line

```
git remote add origin git@github.com:tejasparikh/csye6225-git-demo.git
git push -u origin master
```

...or import code from another repository

You can initialize this repository with code from a Subversion, Mercurial, or TFS project.

Import code

Import your project to GitHub


Import all the files, including the revision history, from another version control system.

Your old repository's clone URL

<https://github.com/tejasparikh/csye6225-spring2018-starter>

Learn more about the types of [supported VCS](#).

Your existing repository

 tejasparikh/csye6225-git-demo

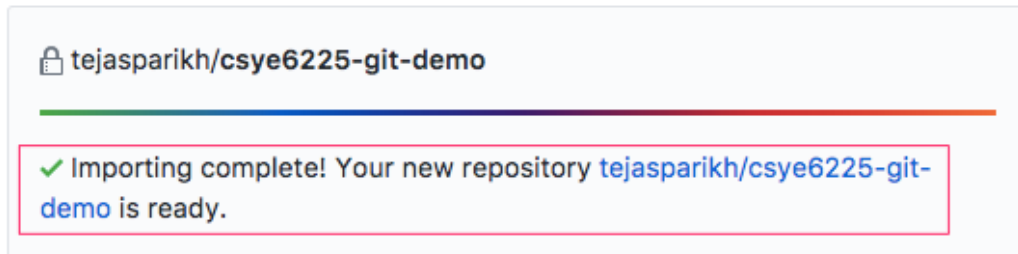
[Change repository](#)

[Cancel](#)

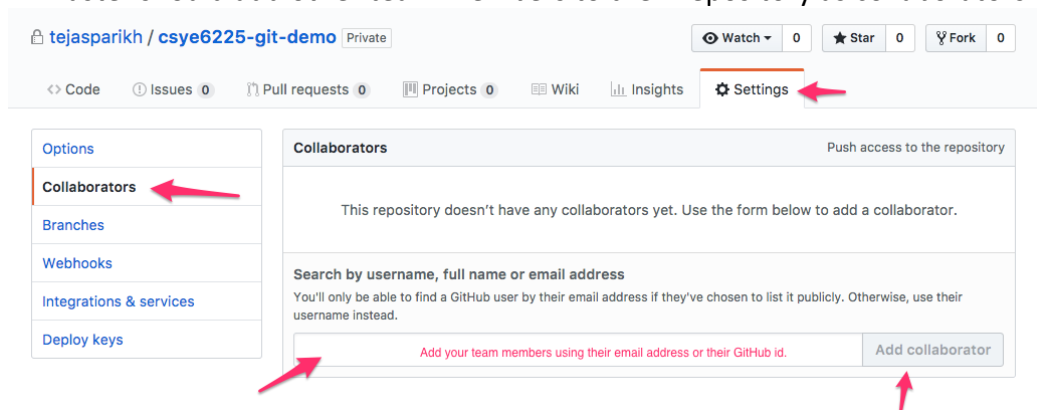
[Begin import](#)

Preparing your new repository

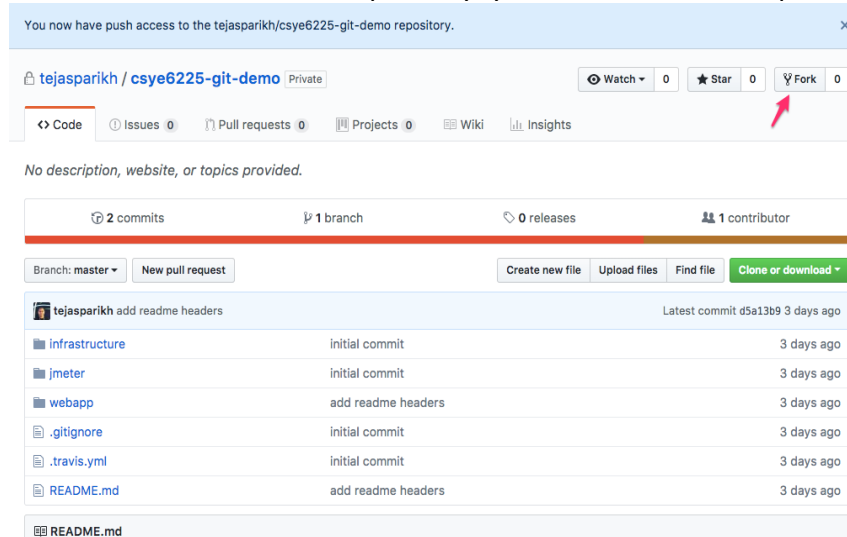
There is no need to keep this window open, we'll email you when the import is done.



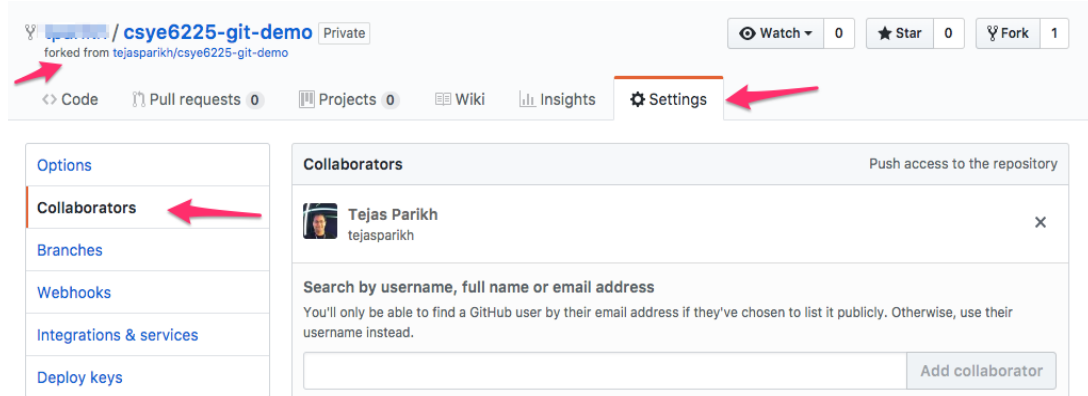
4. Scrum Master should add other team members to their repository as collaborators



5. Once team members can see the repository, you should fork the repository.



6. Now each team members should add rest of the team members including scrum master to their repository as collaborators.



7. Setup your local file system. I would recommend you create a course folder and a dev folder inside it by running the command “`mkdir -p csye6225/app && mkdir -p csye6225/dev`” in your terminal from your home directory (/home/user).
8. Create a *config* file in your *.ssh* directory and add following configuration in it

```
Host github.com
  HostName github.com
  User git
  IdentityFile ~/.ssh/csye6225-github
```

Name of file containing private key for GitHub ssh access.

9. Change into *csye6225/dev* directory and clone your repository using the *git clone* command.

```
→ tmp git clone git@github.com:tejasparikh/csye6225-git-demo.git
Cloning into 'csye6225-git-demo'...
remote: Counting objects: 42, done.
remote: Compressing objects: 100% (29/29), done.
remote: Total 42 (delta 3), reused 42 (delta 3), pack-reused 0
Receiving objects: 100% (42/42), 57.00 KiB | 5.18 MiB/s, done.
Resolving deltas: 100% (3/3), done.
→ tmp ls -al
total 0
drwxr-xr-x  3 tejasparikh  staff   96 Jan 20 19:17 .
drwxr-xr-x 12 tejasparikh  staff  384 Jan 20 12:11 ..
drwxr-xr-x  9 tejasparikh  staff  288 Jan 20 19:17 csye6225-git-demo
→ tmp
```

10. Now add aliases to your team members repository using the command
`git remote add <team_member_first_name> git@github.com:<TEAM_MEMBER_USERNAME>/csye6225-git-demo.git`
Repeat the above command for each one of your team members. Replace the placeholders surrounded by <>.
11. Fetch branches and/or from each one of your team members repository using the command `git fetch <team_member_first_name>` Replace the placeholders surrounded by <>.
12. At this point you are ready to start working with your team on the newly created GitHub repository.

Working with Assignment Branches

All team members must execute following steps at the same time.

1. For each assignment you should create a new branch from the *master* branch using the command `git checkout -b <branch_name>`
2. Push this newly create branch to Github using the command `git push -u origin <branch_name>`
3. Now start working on code changes. For the lab session make changes to any of the existing files and stage the changes using the `git add -A` command.
4. Commit the staged changes using the `git commit -m "COMMIT MESSAGE"` command.
5. Push the changes to the server using the command `git push -u origin <branch_name>`
6. Now that everyone has pushed changes to their own "origin" repository, you should create a pull request to your scrum master's repository.

<https://help.github.com/articles/creating-a-pull-request/>

Comparing changes

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also [compare across forks](#).

base fork: tejasparikh/csye6225-git-d...
Scrum master's repo

base: assignment2
Assignment branch

head fork: tparikh/csye6225-git-demo
Your repository

compare: assignment2
Your assignment branch

✓ Able to merge. These branches can be automatically merged.

Create pull request

1 commit 1 file changed 0 commit comments 1 contributor

Commits on Jan 20, 2018

tparikh Update README.md Verified 314922f

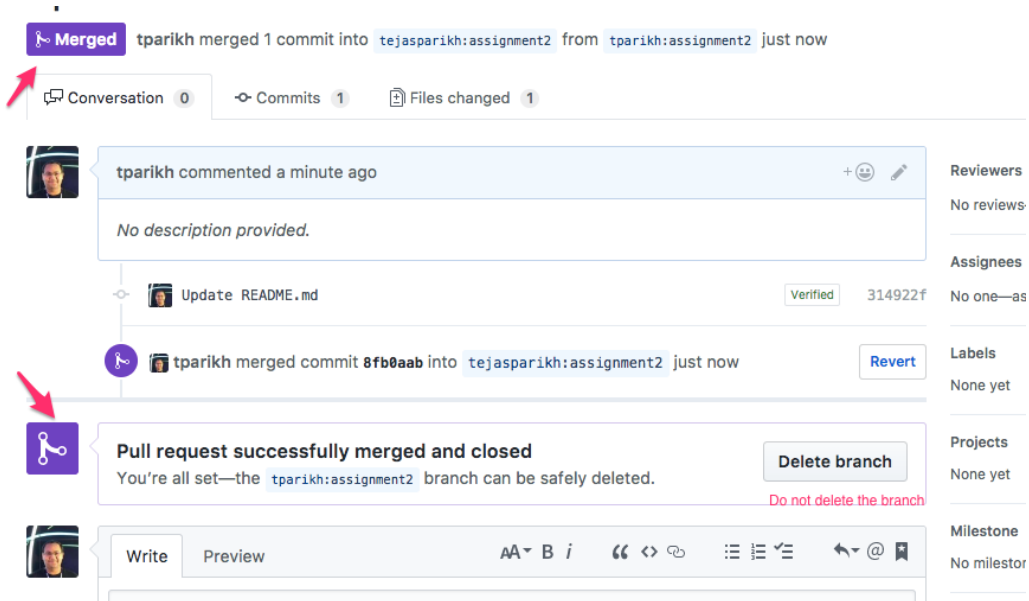
Showing 1 changed file with 1 addition and 1 deletion.

Unified Split

2 README.md

... @@ -1,3 +1,3 @@

1 # CSYE 6225 Spring 2018 Starter Repository



- Now that the code is merged sync your code with team member's repository. To pull latest changes from scrum master's repository, run the command `git pull <team_member_first_name> <branch_name>` in your repository. Replace the placeholders surrounded by `<>`.
- Push the changes you pulled in step 7 to your repository using the command `git push -u origin <branch_name>`