Haseeb ur Rahman

Principles of Programming Languages

GitHub Exercise

<https://github.com/haseebr/CS6112016/wiki/CS-611-2016>

<https://github.com/haseebr/CS6112016/issues>

GitHub is a online service that hosts Git repositories. It was launched in Feb 2009 by CEO Tom Preston-Werner. It provides social networking capabilities to programmers where they can collaborate with each other in creating and maintaining open source projects. GitLab and BitBucket are an alternative to GitHub. GitHub remains the most popular service of this kind so far.

* Repository
  + Repository is a folder where all the code is contained. This folder also contains all the historical logs regarding the changes, commits made to the repository. All this information is stored in a hidden folder inside the Repository called “.git”
* Commit
  + Commit is used to save the changes made to the Repository.
* Push
  + Push is used to bring the remote location in sync with the local changes. For example, you “push” changes made locally to github.com
* Branch
  + A branch is a codebase of a repository that can be developed independently from each other. For instance, you can have a staging branch, dev branch and testing branch for the same repository. This allows you to isolate code for different purposes. It is also possible to merge branches together
* Fork
  + Forking a repo is like copying/cloning a repository. Forks cannot be merged into the repo they were cloned from. The changes, however, can be made in sync with the original by submitting a pull request.
* Merge
  + Merge is used to incorporate changes from one branch to the another. It can also merge changes from a commit-id.
* Clone
  + Clone creates a copy of the code on your local computer.
* Pull
  + Git pull fetches the repo and merges it with the local copy. Meaning the remote is updated with the local
* Pull request
  + Pull requests are reviewed by the original author and decided whether to merge it or not.

Press enter to submit commands

> git init

Initialized empty Git repository in /.git/

Success!

$ git status

# On branch master

#

# Initial commit

#

nothing to commit (create/copy files and use "git add" to track)

Success!

$ git status

# On branch master

#

# Initial commit

#

# Untracked files:

# (use "git add <file>..." to include in what will be committed)

#

# octocat.txt

nothing added to commit but untracked files present (use "git add" to track)

Success!

$ git add octoca

t.txt

fatal: pathspec 'octoca' did not match any files

Did not add octocat.txt

$ git add octocat.txt

Nice job, you've added octocat.txt to the Staging Area

$ git status

# On branch master

#

# Initial commit

#

# Changes to be committed:

# (use "git rm --cached <file>..." to unstage)

#

# new file: octocat.txt

#

Success!

$ git commit -m "Add cute octocat story"

[master (root-commit) 20b5ccd] Add cute octocat story

1 file changed, 1 insertion(+)

create mode 100644 octocat.txt

Success!

$ git add '\*.txt'

Success!

$ git commit -m 'Add all the octocat txt file

s'

Unmatched double quote: "git commit -m 'Add all the octocat txt file"

$ git commit -m 'Add all the octocat txt files'

[master 3852b4d] Add all the octocat txt files

4 files changed, 4 insertions(+)

create mode 100644 blue\_octocat.txt

create mode 100644 octofamily/baby\_octocat.txt

create mode 100644 octofamily/momma\_octocat.txt

create mode 100644 red\_octocat.txt

Success!

$ git log

commit 3852b4db1634463d0bb4d267edb7b3f9cd02ace1

Author: Try Git <try\_git@github.com>

Date: Sat Oct 10 08:30:00 2020 -0500

Add all the octocat txt files

commit b652edfd888cd3d5e7fcb857d0dabc5a0fcb5e28

Author: Try Git <try\_git@github.com>

Date: Sat Oct 10 08:30:00 2020 -0500

Added cute octocat story

Success!

$ git remote add origin https://github.com/try-git/try\_git.git

Success!

$ git push -u origin master

Branch master set up to track remote branch master from origin.

Success!

$ git pull origin master

Updating 3852b4d..3e70b0f

Fast-forward

yellow\_octocat.txt | 1 +

1 file changed, 1 insertion(+)

create mode 100644 yellow\_octocat.txt

Success!

$ git diff HEAD

diff --git a/octocat.txt b/octocat.txt

index 7d8d808..e725ef6 100644

--- a/octocat.txt

+++ b/octocat.txt

@@ -1 +1 @@

-A Tale of Two Octocats

+[mA Tale of Two Octocats and an Octodog

Success!

$ git add octofamily/octodog.txt