**EXERCISE ON GitHub**

**What is GitHub? When was it created? Why? By who? What similar platforms exist? Why would you use such a platform? (Answer between 5 and 10 lines)**

GitHub is a Git repository hosting service, but it adds many of its own features. It also provides access control and several collaboration features, such as wikis and basic task management tools for every project.

Development of the Github platform began on October 1, 2007 but the site was launched in April 2008 by Tom Preston-werner, Chris Wanstrath and PJ Hyett to provide functionality like field tested tool for any project, integrated issue tracking, collaborative code review, syntax highlighted code & rendered data and to easily manage teams within organization.

Bitbucket, Redmine, Gitlab, Launchpad are similar platforms as GitHubs.

People use GitHub for Software Development. It is used to upload code on an Open source Platform

**Define the following terms in the context of Git (2 lines maximum):**

* Repository

A repository is the most basic element of GitHub. They're easiest to imagine as a project's folder. A repository contains all of the project files (including documentation), and stores each file's revision history.

* Commit

A commit, or "revision", is an individual change to a file. It's like when you save a file, except with Git, every time you save it creates a unique ID that allows you to keep record of what changes were made when and by who. Commits usually contain a commit message which is a brief description of what changes were made.

* Push

Pushing refers to sending your committed changes to a remote repository such as GitHub.com. For instance, if you change something locally, you'd want to then push those changes so that others may access them.

* Branch

A branch is a parallel version of a repository. It is contained within the repository, but does not affect the primary or master branch allowing you to work freely without disrupting the "live" version. When you've made the changes you want to make, you can merge your branch back into the master branch to publish your changes.

* Fork

A fork is a personal copy of another user's repository that lives on your account. Forks allow you to freely make changes to a project without affecting the original. Forks remain attached to the original, allowing you to submit a pull request to the original's author to update with your changes.

* Merge

Merging takes the changes from one branch (in the same repository or from a fork), and applies them into another. This often happens as a Pull Request (which can be thought of as a request to merge), or via the command line.

* Clone

A clone is a copy of a repository that lives on your computer instead of on a website's server somewhere, or the act of making that copy. With your clone you can edit the files in your preferred editor and use Git to keep track of your changes without having to be online.

* Pull

Pull refers to when you are fetching in changes and merging them. For instance, if someone has edited the remote file you're both working on, you'll want to pull in those changes to your local copy so that it's up to date.

* Pull request

Pull requests are proposed changes to a repository submitted by a user and accepted or rejected by a repository's collaborators. Like issues, pull requests each have their own discussion forum. See [Using Pull Requests](https://help.github.com/articles/using-pull-requests).

**Part 4:**

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 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 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

Success!

$ git diff --staged

diff --git a/octofamily/octodog.txt b/octofamily/octodog.txt  
new file mode 100644  
index 0000000..cfbc74a  
--- /dev/null  
+++ b/octofamily/octodog.txt  
@@ -0,0 +1 @@  
+[mwoof

Success!

$ git reset octofamily/octodog.txt

Success!

$ git checkout -- octocat.txt

Success!

$ git branch clean\_up

Success!

$ git checkout clean\_up

Switched to branch 'clean\_up'

Success!

$ git rm '\*.txt'

rm 'blue\_octocat.txt'  
rm 'octocat.txt'  
rm 'octofamily/baby\_octocat.txt'  
rm 'octofamily/momma\_octocat.txt'  
rm 'red\_octocat.txt'

Success!

$ git commit -m "Remove all the cats"

[clean\_up 63540fe] Remove all the cats  
5 files changed, 5 deletions(-)  
delete mode 100644 blue\_octocat.txt  
delete mode 100644 octocat.txt  
delete mode 100644 octofamily/baby\_octocat.txt  
delete mode 100644 octofamily/momma\_octocat.txt  
delete mode 100644 red\_octocat.txt

Success!

$ git checkout master

Switched to branch 'master'

Success!

$ git merge clean\_up

Updating 3852b4d..ec6888b  
Fast-forward  
blue\_octocat.txt | 1 -  
octocat.txt | 1 -  
octofamily/baby\_octocat.txt | 1 -  
octofamily/momma\_octocat.txt | 1 -  
red\_octocat.txt | 1 -  
5 files changed, 5 deletions(-)  
delete mode 100644 blue\_octocat.txt  
delete mode 100644 octocat.txt  
delete mode 100644 octofamily/baby\_octocat.txt  
delete mode 100644 octofamily/momma\_octocat.txt  
delete mode 100644 red\_octocat.txt

Success!

$ git branch -d clean\_up

Deleted branch clean\_up (was ec6888b).

Success!

$ git push

To https://github.com/try-git/try\_git.git  
3e70b0f..cea9bd6 master -> master

Success!

>

**Part 7:**

$ git config –global user.name

$ git config –global user.email

$ git init

$ git add .

$ git commit

$ git status

$ git remote add

$ git push