(Answer between 5 and 10 lines)

What is GitHub?

GitHub is a web-based Git repository hosting service. It also permits to document a project, manage tasks, and bug reports. GitHub can also function as almost a social workplace for developers, coders and all others who work in this medium. The original purpose of GitHub was to make the functionality of Git more widely available by implementing it with a graphical interface on the web. Development for GitHub began in October 2007 by Tom Preston-Werner, Chris Wanstrath, PJ Hyett and was officially released after a beta test period in April 2008. GitHub aimed to make it easier for people who work in this field to work better together, hence their motto “Build software better, together.” In this regard it seems GitHub succeeded as it is now the most popular repository hosting service in the world.

What similar platforms exist?

SourceForge, Bitbucket, Redmine, GitLab, Launchpad, Gogs (Go Git Service), CodePlex, Assembla, Phabricator, Ubirimi, Kallthea, GitBucket, Codebase, RhodeCode, Atlassian Stash, Beanstalk, Gitblit, GitPrep, Unfuddle, Springloops, gitweb, Open Build Service, Gitolite, GitList, Yodiz, Appvillage.com

4a.

>init git

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

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

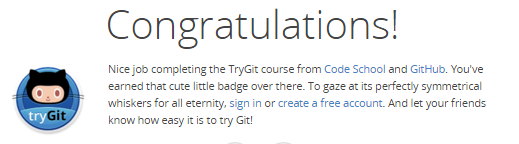
Deleted branch clean\_up (was ec6888b).

Success!

$ git push

To https://github.com/try-git/try\_git.git  
3e70b0f..c045c1a master -> master

Success!



4b.

* Repository – A repository is data structure that stores and records the history of your work. It often lives in a .git subdirectory of your working copy (a copy of the most recent state of the files you're working on).
* Commit – A commit records changes to a local repository
* Push – A push updates remote repository with what was Committed
* Branch – A version of the work. The main branch is called Master Branch, while other branches are made generally to add a feature to a current version without disturbing the master branch. This can be merged later in to the Master Branch.
* Fork – Allows you to freely experiment with a copy of the repository without affecting the original project
* Merge – The result of your merged branch becomes a new commit towards the current branch
* Clone – Retrieve a copy of an existing repository
* Pull - Git pull runs git fetch with the given parameters and calls git merge to merge the retrieved branch heads into the current branch
* Pull request - Pull requests let you tell others about changes you've pushed to a repository. Once a pull request is sent, interested parties can review the set of changes, discuss potential modifications, and even push follow-up commits if necessary.