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)

Ans:

**GitHub** is a web-based [Git](https://en.wikipedia.org/wiki/Git_(software))  [hosting service](https://en.wikipedia.org/wiki/Internet_hosting_service).

The site was Created in April 2008.

Its main function is version control. Github helps in storing modifications in the code in a central repository.

 It was founded by [Tom Preston-Werner](https://en.wikipedia.org/wiki/Tom_Preston-Werner), Chris Wanstrath, and PJ Hyett. .

Bit bucket, Beanstalk and cloudforge are few other git hosting services.

It has a user interface while git is only command line which makes it easier to operate.

It is much easier to for the developers to collaborate as they can download the existing version make changes in it and upload the latest version.

4.Go through the Git tutorial here: <https://try.github.io>. While doing the tutorial, save your work the *LastnameFirstnameGitTutorial-mm-dd-yyyy.docx* file.

> 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

$ 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..0940cc2 master -> master

Success

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

* Repository: It is the space which stores project’s files and folders. It is required to do anything in Git.
* Commit: A commit is snapshot of all the files and folders at a particular point of time.
* Push: It is used to put commits made on the local branch to remote repository.
* Branch: It is the part contained within the repository, but does not affect the primary or master branch allowing you to work freely without disrupting the "live" version
* Fork : Fork is another user’s copy which is on your account. It allows to work freely on the version without affecting the orignal
* Merge: Merging takes the changes from one branch (in the same repository or from a fork), and applies them into another.
* Clone It is a copy of project which lives on the local machine instead of a website.
* Pull: It is fetching someone else’s changes and merging them so that your copy is up to date.
* Pull request : It is the request of proposed changes by another user who is not a collaborator to the collaborators of the repository.

Q7 Steps:

**Cloning**

YASH CHATURVEDI@YASH MINGW64 ~

$ git clone https://github.com/Yash009/CS6412016

Cloning into 'CS6412016'...

remote: Counting objects: 6, done.

remote: Compressing objects: 100% (4/4), done.

remote: Total 6 (delta 0), reused 0 (delta 0), pack-reused 0

Unpacking objects: 100% (6/6), done.

Checking connectivity... done.