GitHub Homework

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**What is GIT and GitHub and what are their differences?**

GIT (Global Information Tracker). GIT is a software for tracking changes in any set of files, and usually used for coordinating work among programmers to collaboratively develop the source code. GitHub is a website where developers store their projects as repositories and have additional features to help them to collaborate to develop projects. Similar hosting websites: GitLab, BitBucket

**What is SSH Key and why do we use it?**

An SSH key is an alternate way to identify yourself that doesn't require you to enter username and password every time. SSH keys come in pairs, a public key that gets shared with services like GitHub, and a private key that is stored only on your local. If the keys match, you're granted access.Run the command ssh-keygen in the Terminal and generate public and private key pairs of SSH in the default folder. Go to GitHub Setting and add new SSH Key (public key). Copy and paste your public key from local to GitHub with a proper name.

**What is a repository and how to create a new repository on GitHub?**

A Git repository tracks and saves the history of all changes made to the files in a Git project. It saves this data in a directory called . git , also known as the repository folder. Git uses a version control system to track all changes made to the project and save them in the repository.

1)Go to <https://github.com/>

2)Login with your account

3)Create a new repository with a proper name

4)Link this repository with your existing project on your local BUT

5)First make sure default branches are same

6)Generate SSH Key using CLI to ease your work with GitHub

**How do you push codes from a new branch or from an existing branch?**

Make sure that you have a project created on your local and a GitHub repo created to host your local project

Link your local project with remote repo using command below

git remote add origin <URL>

Now, your project is linked to remote repo and ready push some changes to GitHub

Make sure that you tracked and committed changes your local branch, then push with below command

git push –u origin <branch>

Above commands used once for each new branch (for the first push), then you are safe to push with below command if you are on the same branch

git push