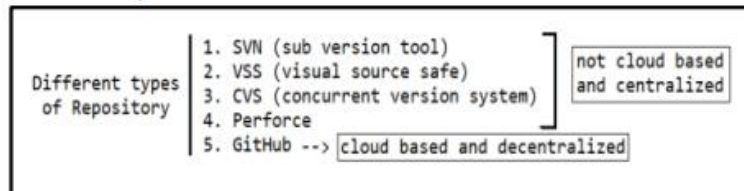GITHUB:

> GitHub can also be called Source Code Management tool/Configuration Management tool/Version Control tool.
> The other different repositories available are:

> Since GitHub is a Cloud based and decentralized, it is very popular and most of the organization are using it.
> GitHub is a distributed/decentralized, cloud repository where we can maintain our source Code / Automation Framework / CRS doc / builds of the application in one place.

1. Git HUB: Cloud based repository(software), which is used maintain the source code. We have to create an account in order to use it [https://github.com]

2. Git [Git client]: it's a software which should be installed in client machine, which is used to communicate to GITHUB ex: EGit(Eclipse Git) , GitDesktop , GitBash

Note: EGit is a default plugin available in latest versions of Eclipse

> Developer Usage of Git: used to maintain the Source of the Application in one place.
> Automation Usage of Git: used to maintain the entire Automation framework in one place.
> DevOps Usage of Git: used to maintain the multiple application build version in one place.
> Manual team Usage of Git: used to maintain the entire CRS / test cases of the application

Advantages of GitHub

> Since it is a Cloud based repository, no need to have a separate maintenance team to maintain the server/software.
> File Sharing between the team members is easy.
> Since it is a Cloud based it provides Remote access that means contributors from anywhere can access and contribute their work (Code/test scripts)
> Provides History for changes made by users (contributors) and provides a backup facility.
> It provides an option to Review the Code / Test Script (Pull request).
> Jenkins will always take the framework from GitHub for execution

GitHub Architecture:
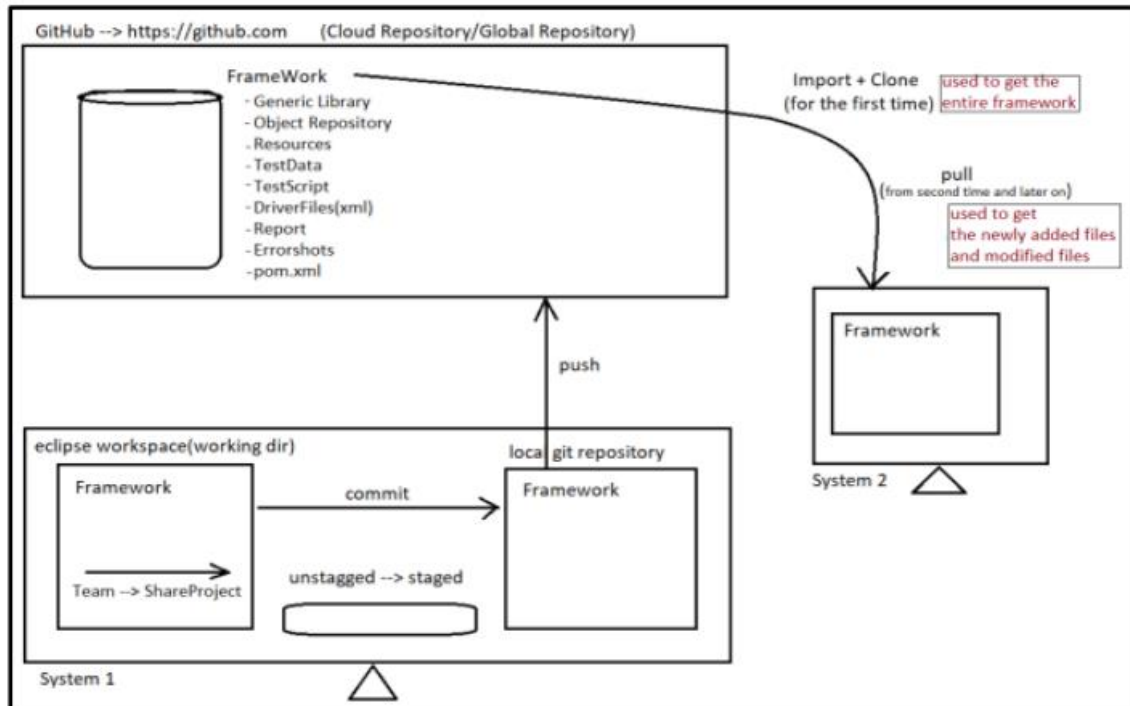
Git Commands:

> Commit: it is one of the command used to push our framework from the workspace to the local repository in our system
> Push: it is the command used to push our code / framework from the local repository to Global repository
> Import + Clone: for the very first time when you are trying to get the framework from Global repository to your eclipse we have to use this command
> Pull: it is the command used to get the latest / updated files from the already imported framework

Why GitHub is called Decentralized Repository?

GitHub is a Decentralized Repository because, before pushing the code to GitHub we have to commit the code to the local repository first and then only we can push the code/framework to the Global Repository because of this everyone who is contributing for the Global Repository will have a copy of the entire code/framework in their system.