Centralized VCS -> SVN, TFS (Azure dev oops -distributed (Microsoft)) - we cannot have all version on the local machine

Distributed VCS -> Git (LOCAL AND CE-NTRAL BOTH HAVE ALL VERSIONS OF THE DATA)

1. Tracks history

2. Free and Open source

3. We can have branches

4. Nonlinear development

5. Backup

6. Branching is easier

7. Supports collaboration

Features of GitHub

1. Easy Project Management
2. Increased safety with packages
3. Effective Team Management
4. Improved Code writing
5. Increase Code safety –CL command
6. Easy Code hosting – each repository has their own tools for release

Competitors –

1. BitBucket
2. FogBuzz
3. Surround SCM
4. GitLab
5. Buddy
6. Bean stalk

Difference between Git & Git Hub

|  |  |
| --- | --- |
| Client | Server |
| Used to create files, commit the changes | Store the changes in repo on server |
| Access the changes | Hosts the changes |
| Can make do without internet | To access the hosted changes internet connection is needed |

Miscellaneous Command:

Delete dir -> rm –rf dirname

Create dir -> mkdir dirname

Point to dir -> cd dirname

Hard merge -> git pull origin master –allow-unrelated-histories

Delete the origin url -> git remote rm origin

To generate ssh privatekey -> ssh-keygen -t rsa -C [lavanyaseshu.lg@gmail.com](mailto:lavanyaseshu.lg@gmail.com)

Merge Conflicts:

To see conflicted files-> git log –merge

Ro see difference between staging files and repo files -> git diff

To change branches -. To stabilize build -> git checkout

To undo changes of Staging area -> git reset –mixed

To undo merging process in the staging are -> git merge –abort

To reset the conflicted files to their original state(not the staging state) -> git reset

To manually merge -> git mergetool

To pull the repo files to rebase -> git pull –rebase origin master

Once merge conflicts resolve -> git rebase --continue

if you want to skip merge -> git rebase -skip

if you want to reset to repo version -> git reset

If you want to get hash keys of commit report -> git log –pretty=oneline

If you want to get the report of files changed -> git diff-tree –r {haskey}

Merging branches in Git Hub:

Go to pull request -> To the ones that have conflicts -> resolve them -> Mark as resolved -> Commit the files -> merge the branch/ merge the puul request





