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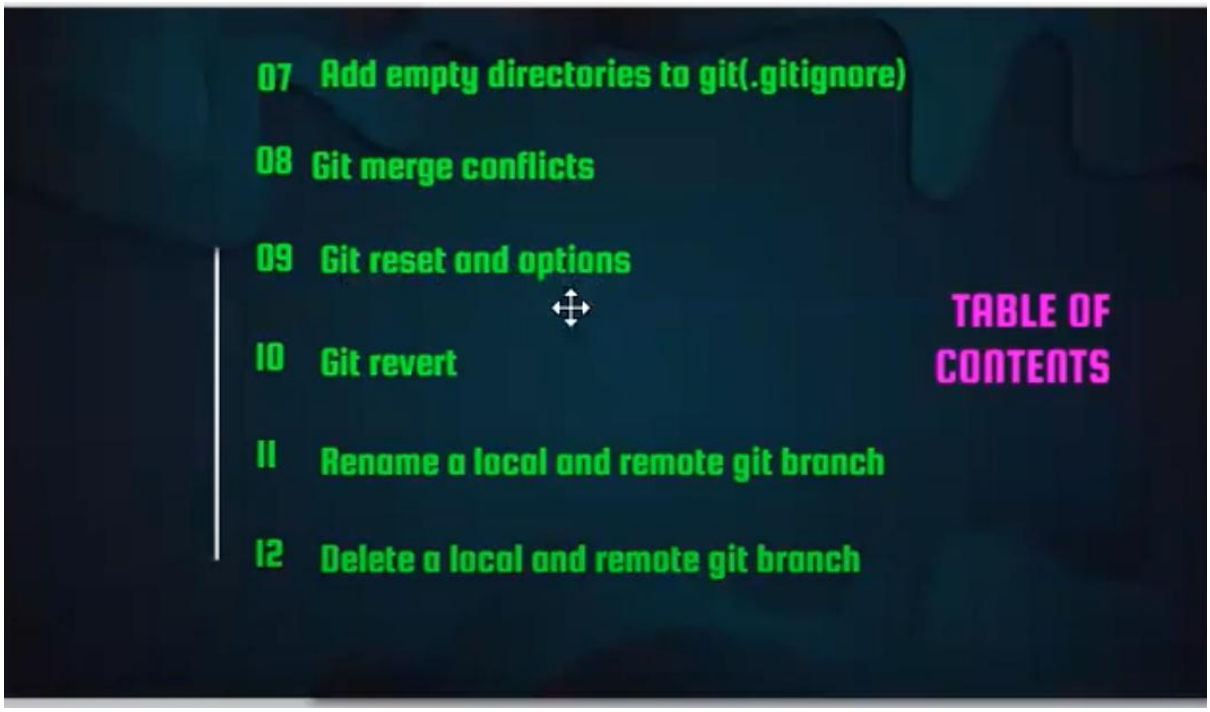
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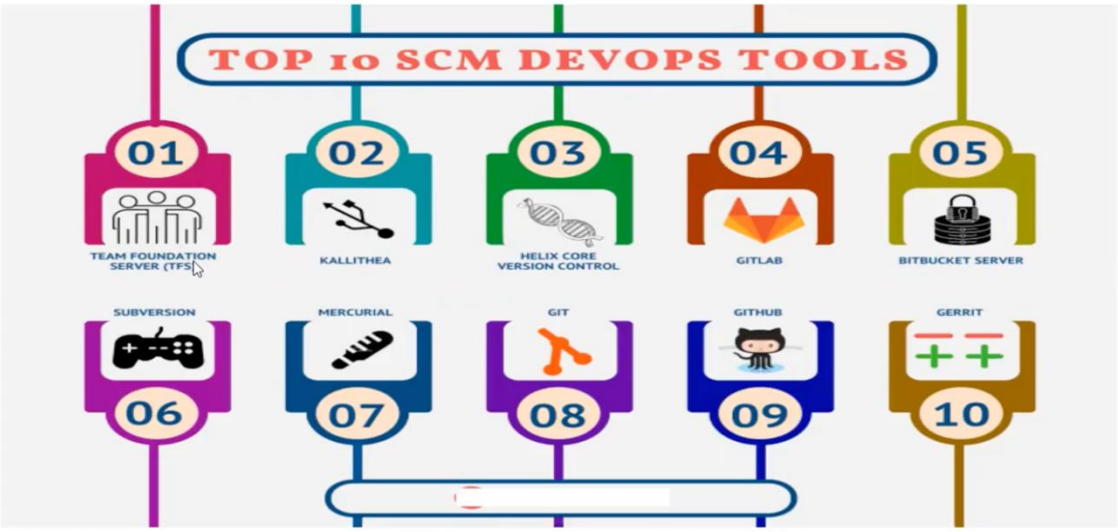
Version Control

1. Version Control System (VCS) is a software that helps software developers to work together and maintain a complete history of their work.
2. We can also called software configuration management(SCM)

Functions of Version Control

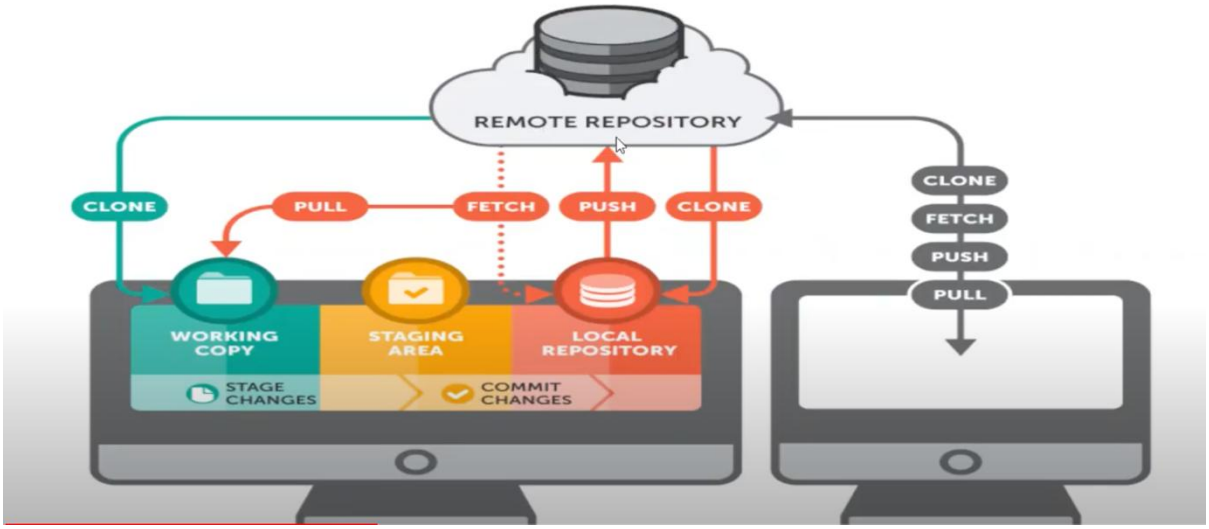
1. Allows developers to work simultaneously.
2. Does not allow overwriting each other's changes.
3. Maintains a history of every version.



Types of Version Control

1. Centralized version control system (CVCS):
   - ➢ It is also called client server architecture
   - ➢ It is supported by the SVN(Subversion) tool
2. Distributed version control system (DVCS):
   - ➢ It is also called distributed architecture
   - ➢ It is supported by GIT tool

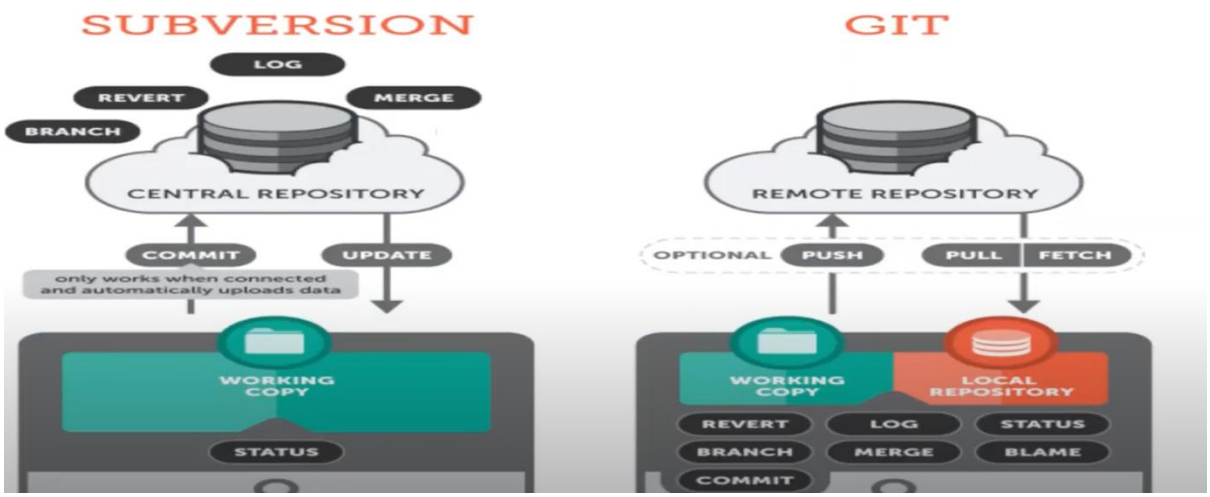
GIT Architecture



Advantages of Git

1. Free and open source
2. Fast and small
3. Implicit backup
4. Security
5. No need of powerful hardware
6. Easier branching

Differences between Subversion and Git



GIT

1. Git is a free and open source distributed version control system to handle everything from small to very large projects with speed and efficiency
2. We can maintain versions of source code
3. We can go back to older versions
4. Auto merge(if possible)
5. We can maintain customer and release branches

Git stages

Git stages

1. Working directory : files in a current local directory that we are working on
2. Staging area(index) : is a temporary area where we add files with git add command
3. Local repository : perform commit operation that moves the files from the staging area and stored in local repository ie., git

Play (k)

Team members activities using git

1. First team member activities first time:

- Create the repository in github account and copy the repository url
- Right click select gitbash here anywhere in the laptop
- Type git clone <paste repository url> and press enter
- Navigate to the repository like below:
- cd <repository name>

Team members activities using git

- Now git add -A or git add . or git add <file name>
- Type git status
- Type git commit -m “f1 file created in main branch”
- Type git push

2. Remaining team members activities first time

- Open github account and copy the repository url
- Right click select gitbash here anywhere in the laptop

Team members activities using git

3. All team members activities second time

- git pull