**GIT**

1. What is GIT and its significance in SDLC

Answer:

Git is an open source distributed version control system. Git keeps track of everything related to project during its life cycle. It allows multiple developers, designers and team members to work together on same project. Version control makes it sure that every team member is working on the latest version of code.

1. What is the difference between GIT and SVN?

Answer:

SVN(Subversion) is a centralized version control system(CVCS). CVCS operates on the idea that there will be single copy of the project that developers will commit changes to.

Git is a distributed version control system which uses multiple repositories including a centralized repository as well as local repository.

1. What are the advantages of using GIT?

Answer:

* Git offers high performance version control
* Offers reliable merging and branching
* It is distributed means git repository can be copied by anyone to their local system for their work
* Provide security to code
* Open source
* Backup will be easy

1. What is “Staging Area” or “Index” in GIT?

Answer:

Staging area or Index is one of the three stages in Git. Files in this state are modified and are added to be staged in the next commit.

1. What is GIT stash?

Answer:

Git stash is used to save the files and current state of a working directory to a stack of unfished changes. The command will save local modifications

Command used: **git stash**

If we need the files back we can use the command: **git stash apply**

1. What is the function of git clone?

Answer:

‘git clone’ is used to create copy of an existing repository. If a repository is in remote, we can clone it to local and can work on it.

1. How can you create a repository in Git?

Answer:

1. Go to the directory where repository needs to be created.
2. Type command **git init.** This will initialize a .git repository
3. Then we can add files to it
4. What is the purpose of branching in GIT?

Answer:

Branching can be done to separate projects so that it can achieve isolation. It helps developers to work on each features independently.

1. What is the difference between ‘git remote’ and ‘git clone’?

Answer:

‘git clone’ is used to copy/clone an existing repository whereas ‘git remote’ is used to refer to a remote repository.

1. What is the function of ‘git diff ’ in git?

Answer:

‘git diff’ is a git command used to view the changes from the last commit

1. Explain what the commit message is?

Answer:

‘commit’ save the latest changes to the repository

command: **git commit –m ‘commit message’**

commit message will tell git about the changes that we are saving.

1. Why is it advisable to create an additional commit rather than amending an existing commit?

Answer:

Amending to an existing commit means after adding changes instead of committing that change, there is an option to include the additional changes as a part of previous commit. This will destroy the state of the commit and there is a change of losing something important in that commit. So it is good practice to create new commit instead of amending an existing commit.

1. What is Rebasing

Answer:

It is a way of integrating changes from master/parent branch to another branch.

Following commands can be used for rebase.

**git checkout feature**

**git rebase master**

Feature will be moved to master branch