

1. What is Git? Why it is used?

Git is a source code management tool. Git tracks the changes made to the file and maintains a history of changes which can be reverted if required.

2. Difference between git pull and git fetch

The key difference between git pull and git fetch is git pull downloads all the commits from the remote repository and directly merges with the working directory but git fetch does not. The git fetch command only copies changes into your local Git repo. The git pull command does both.

3. How do you revert a commit in Git?

git revert is used to revert the commit by committing a new commit without the changes of the commit and the commits after the selected commit.

git revert <commit_hash>

git reset command is used to undo the changes in your working directory and get back to a specific commit while discarding all the commits made after that one.

4. Git staging area

Git staging area gives the space to prepare the changes that will reflect on the next commit. A temporary holding area where it allows the user to choose changes to include in the next commit.

5. What is a merge conflict, and how can it be resolved?

When git fails to automatically merge the changes made between the previous version and the current version, it enters a stage called merge conflict. It can be resolved by choosing the exact version that we needed the git to merge.

6. How does Git branching contribute to collaboration?

Git maintains all the changes made at different branches and keeps tracks of them which can later be merged or reverted back. Hence it helps in collaboration of many people work on a project with different or same solutions to different problems.

7. What is the purpose of Git rebase?

Rebasing in Git is a process of integrating a series of commits on top of another base tip. It takes all the commits of a branch and appends them to the commits of a new branch.

8. Explain the difference between Git clone and Git fork

Git fork creates a complete repository of our own and allows to make our experimentations with the repository without impacting the original repo. Git clone just downloads the original repository in the local repo and does not allow to make any changes.

9. How do you delete a branch in Git?

`git branch -delete <branch name>`

This command helps to delete a particular branch

10. What is a Git hook, and how can it be used?

Git Hooks are scripts that Git executes before or after events such as committing, pushing, and receiving changes. These hooks allow the user to automate tasks, enforce policies, and customize their Git workflow.