

1. What is Git and why is it used?

- It is a distributed version control system that helps to manage and track changes in code.
- It allows multiple people to collaborate on a project.
- It is used for following purposes : Version Control, Collaboration, Branching and merging etc.

2. Explain the difference between Git pull and Git fetch.

- git fetch updates local repository with changes from a remote repository but does not automatically merge them into the working directory.
- git pull updates local repository with changes from a remote repository and automatically merge them into the working directory.

3. How do you revert a commit in Git?

- Using git revert command
- Using git reset command
- Using git checkout command

4. Describe the Git staging area.

- It is an intermediate area where changes are listed before they are committed to the repository.
- Main purpose : Prepare commit, Review Change etc

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

- A merge conflict is when we try to merge two branches that have changes in the same parts of the same files.
- Git automatically cant resolve this merge conflict.
- It can be solved by taking the following steps : Identify the conflict, resolve it, stage the resolved files and than commit the changes.

6. How does Git branching contribute to collaboration?

- Git branching contribute to collaboration by the following ways :

- Isolation of work
- Parallel development
- CI/CD
- Code Review

7. What is the purpose of Git rebase?

- Git rebase is used to streamline a series of commits hence making a project's history more linear and easier to understand.
- It also helps in resolving merge conflicts

8. Explain the difference between Git clone and Git fork.

- Git clone is used to create a copy of an existing repository on your local machine.
- Git fork creates a copy of a repository under your own account on the hosting service such as github, gitlab etc

9. How do you delete a branch in Git?

- A local branch can be delete by the following commands :
 - Git branch -d (Safe delete)
 - Git branch -D (Force delete)
- A Remote branch can be deleted by the following commands :
 - Git push origin -delete

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

- A Git hook is a script that is automatically executed by git before or after certain events, such as committing or pushing etc
- It can be used for tasks such as automation, integration etc