

1. what is GIT?

A: GIT is a distributed version control system to track changes in source code during development.

2. What is GitHub?

A: GitHub is a cloud-based platform that hosts git repositories and supports collaboration, issue tracking, and CI/CD.

3. GIT VS GitHub?

Git: version control tool(local)

GitHub: hosting service for Git Repository(cloud-based).

4. What is a Repository(repo)?

A: A storage space where your project files and history are saved.

5. common Git Commands:

1. git init : initialize a repo
2. git clone : copy a repo
2. git add . : stage changes
3. git commit -m "first commit" : save changes
4. git push : fetch and merge from remote
5. git status : check current state
6. git log : view commit history
7. git branch : check back

6. What is a Commit?

A: A snapshot of your changes. Each commit has a unique ID (hash) and message.

7. What is a Branch?

A: A separate line of development. The default branch is usually main or master.

8. What is Merging?

A: Combining changes from one branch into another.

9. What is a Pull Request (PR)?

A: A GitHub feature to propose changes, request reviews, and merge code into the main branch.

10. What is Forking?

A: Creating a personal copy of someone else's repo to make changes independently.

11. Difference between Merge and Rebase

- Merge: Keeps all history, creates a merge commit
- Rebase: Rewrites history, makes it linear

12. What is Git Workflow?

A: A set of rules like Git Flow, GitHub Flow, etc., for how teams manage branches