

GitLab Interview Questions & Answers

Q1. What is GitLab?

GitLab is a web-based DevOps platform that provides a Git repository manager with built-in CI/CD pipelines, issue tracking, code review, and deployment features.

Q2. What is the difference between Git and GitLab?

Git is a distributed version control system, while GitLab is a platform built on top of Git that provides collaboration, CI/CD, and project management.

Q3. How do you clone a GitLab repository?

Use: `git clone https://gitlab.com/username/repository.git`

Q4. What is the difference between `git pull` and `git fetch`?

`git fetch` downloads changes but does not merge, while `git pull` downloads and merges changes into your current branch.

Q5. What is a Merge Request (MR) in GitLab?

A Merge Request is GitLab's equivalent of a Pull Request in GitHub. It allows code review and discussion before merging code into the main branch.

Q6. What is GitLab CI/CD?

An integrated Continuous Integration and Continuous Deployment system that runs jobs defined in a `.gitlab-ci.yml` file.

Q7. What is `.gitlab-ci.yml`?

It's a YAML file at the root of your repo that defines stages, jobs, and runners for CI/CD pipelines.

Q8. What are GitLab Runners?

Runners are agents that execute jobs defined in `.gitlab-ci.yml`. They can be shared or specific runners.

Q9. How do you secure sensitive data in GitLab pipelines?

By using GitLab CI/CD variables (masked & protected) or storing secrets in external secret managers.

Q10. What's the difference between protected and unprotected branches in GitLab?

Protected Branch: Only authorized users can push or merge. Unprotected Branch: Anyone with repo access can push.

Q11. How do you integrate GitLab with Docker?

By using docker as an executor in GitLab runner and defining services in `.gitlab-ci.yml`.

Q12. How do you set up code review in GitLab?

Create a branch, push changes, create a Merge Request, assign reviewers, review & approve, then merge.

Q13. How do you scale GitLab CI/CD pipelines?

Use multiple runners with autoscaling, cache dependencies, and use parallel jobs & artifacts.

Q14. Explain GitLab's Environments feature.

GitLab allows deploying to multiple environments (Dev, Staging, Production) and tracking deployments.

Q15. How do you roll back a deployment in GitLab?

Revert the commit in Git and trigger rollback job in CI/CD pipeline.

Q16. Difference between GitLab and GitHub?

GitLab offers free private repos and built-in CI/CD, while GitHub has a larger open-source community and GitHub Actions.

Q17. What Agile project management features does GitLab provide?

GitLab offers Issues, Boards, and Epics for project management similar to Jira.