

Jenkins & DevOps Learning Plan (SRE Focus)

4 Weeks Roadmap + Hands-on Practice + Interview Prep

WEEK 1: Jenkins Basics & Setup

- Install Jenkins (Docker & WAR methods)
- Explore Jenkins UI, jobs, plugins
- Hands-on: Create freestyle project
- Integrate Git with Jenkins

WEEK 2: Pipelines & Automation

- Jenkins Pipeline (Declarative & Scripted)
- Hands-on: Build CI pipeline with GitHub repo
- Setup Webhooks for auto-trigger
- Manage Jenkins agents & nodes

WEEK 3: Advanced Jenkins (CD & Integration)

- Jenkins with Docker & Kubernetes
- Hands-on: Deploy sample app to K8s using Jenkins
- Jenkinsfile best practices
- Configure secrets, credentials, config management

WEEK 4: SRE & Interview Preparation

- Monitoring Jenkins jobs (logs, alerts)
- Scaling Jenkins (master-agent architecture)
- Backup & recovery strategies
- Common SRE Interview Q&A on Jenkins & CI/CD

✓ HANDS-ON TASKS (Essential for SRE Role):

1. Setup Jenkins on Docker
2. Create CI/CD pipeline for sample app
3. Deploy app to Kubernetes with Jenkins pipeline
4. Configure Jenkins with monitoring (Prometheus/Grafana)

INTERVIEW SAMPLE QUESTIONS:

- Q1. Explain difference between freestyle & pipeline jobs.
- Q2. How do you secure Jenkins?
- Q3. How do you scale Jenkins for large workloads?
- Q4. Jenkins vs GitHub Actions vs GitLab CI - your opinion?
- Q5. Describe a CI/CD pipeline you built end-to-end.

■ Tip: Keep practicing pipelines + debugging builds. That's what SRE interviews test most!