CI/CD Basics

- 1. What is CI/CD and how does it relate to automation testing?
- 2. Explain the difference between Continuous Integration, Continuous Delivery, and Continuous Deployment.
- 3. Why is CI/CD important in test automation and agile development?
- 4.How would you integrate automated tests in a CI/CD pipeline?
- Tools & Implementation
- 5. Which CI/CD tools have you used (e.g., Jenkins, GitLab CI, CircleCI, GitHub Actions)?
- 6.How do you trigger your automation suite from a Jenkins pipeline?
- 7. Have you written or configured Jenkinsfiles? What are the key stages in it for automation?
- 8. What is a Jenkins agent? How do you configure it to run Selenium tests?
- **9.How** do you manage test reports (e.g., ExtentReport, Allure) in the pipeline?
- 10.How do you ensure test results are visible to the entire team via CI/CD?

- 11. Where do unit, integration, and UI tests fit in a CI/CD pipeline?
- 12.How do you run smoke vs. regression tests in a CI/CD environment?
- 13. How do you handle flaky tests in the CI pipeline?
- **14.How** do you set up test environment variables or credentials in the pipeline?
- 15. What happens if an automated test fails in your pipeline? How is it handled?

X Advanced/Real-World Scenarios

- 16. Have you worked with Docker or containers to run automated tests in pipelines?
- 17. How do you parallelize tests to reduce build time in CI/CD?
- 18. What is your approach for test data management in pipelines?
- 19.How do you ensure your tests are cross-browser or cross-platform in the pipeline?

20. Have you integrated code quality tools like SonarQube in your pipeline? How?

- Version Control + Build Integration
- 21. How does Git/GitLab/GitHub integrate with your CI/CD pipeline?
- 22. What is the role of webhooks in CI/CD for test automation?
- 23. How do you handle feature branch testing vs. main branch builds?
- DevOps Collaboration
- **24.How** do you collaborate with DevOps Engineers in maintaining pipelines?
- 25. Have you set up test automation for microservices or APIs in CI/CD?