Playwright QA Roadmap + Interview Guide

Playwright QA Syllabus to Study

1. Getting Started

- What is Playwright? vs Selenium vs Cypress

- Installing Playwright (via npm or pip)

- Project structure & configuration

- Test runners: Playwright Test / Jest / Pytest

2. Core Playwright Concepts

- Launching browsers: Chromium, Firefox, WebKit

- Page navigation & interaction

- Locators: page.locator(), CSS/XPath/text selectors

- Handling waits: waitForSelector, auto-waiting

- Handling popups, frames, modals

3. Assertions & Validations

- Built-in Playwright assertions

- Validating elements, URLs, text, attributes

- Soft vs hard assertions

4. Advanced Interactions

- File uploads/downloads

- Mouse & keyboard events

- Scrolling, hovering, drag and drop

5. Test Organization

- Test hooks: beforeEach, afterAll

- Grouping tests (test.describe)

- Parallel execution and retries

6. API Testing with Playwright

- Using request context

- Sending GET/POST/PUT requests

- API + UI hybrid testing

7. Playwright with Fixtures

- Creating custom fixtures

- Using config files and global setup

- Managing test data and state

8. Reports & Debugging

- Generating HTML reports

- Using traceViewer and debug mode

- Screenshots and video capture

9. CI/CD Integration

- GitHub Actions, Jenkins, GitLab CI

- Running headless in pipelines

- Environment variables and secrets

10. Cross-Browser & Mobile Emulation

- Running tests in different browsers

- Emulating devices like iPhone, Pixel

- Geolocation, locale, permissions

Playwright Interview Questions

Basics

1. What is Playwright? Why would you choose it over Selenium?

2. How does Playwright handle auto-waiting?

3. Difference between page.locator() and page.querySelector()?

Element Handling

4. How do you handle dynamic elements in Playwright?

5. How do you handle iframes and modals?

6. What's the use of hasText, nth, and first?

Framework & Config

7. How do you structure your test automation framework using Playwright?

8. What's the role of fixtures in Playwright?

9. How do you implement data-driven testing?

Debugging & Reporting

10. How do you debug flaky tests in Playwright?

11. How do you enable trace viewer and video capture?

12. How do you generate HTML reports?

API + UI

13. How do you validate backend data using API tests within Playwright?

14. Can you run API requests before your test runs?

Real-World Scenarios

15. How would you test a file upload feature using Playwright?

16. How do you emulate a mobile browser and test responsiveness?