# Automation Testing Interview Questions | Cheat Sheet

## Selenium WebDriver

1. What is Selenium WebDriver, and how does it differ from Selenium RC?
2. Explain the difference between findElement and findElements in WebDriver.
3. What is the WebDriver interface, and how do you instantiate a WebDriver object for different browsers?
4. How can you handle different types of alerts and pop-ups in Selenium WebDriver?
5. Explain the concept of implicit and explicit waits in WebDriver.
6. What is the Page Object Model (POM) in Selenium WebDriver, and why is it beneficial for test automation?
7. Explain the concept of WebDriver Waits. What are some types of waits available in Selenium?
8. How can you handle frames and iframes in Selenium WebDriver?
9. What are Selenium Grid and its advantages in test automation?
10. What is the difference between driver.close() and driver.quit() in WebDriver?

## JAVA

1. What is the difference between JDK, JRE, and JVM?
2. What is OOP (Object-Oriented Programming), and how is it used in Java?
3. Explain the difference between '==' and '.equals()' in Java for comparing objects.
4. What is an exception in Java, and how do you handle exceptions using try-catch blocks?
5. What are access modifiers in Java, and what are their different levels of visibility?
6. What is method overloading and method overriding in Java? Provide examples.
7. Explain the concept of multithreading in Java and why it's important in test automation.
8. What is the purpose of the 'final' keyword in Java, and where can it be used?
9. How do you handle exceptions that are not caught by a try-catch block in Java?
10. What is the purpose of the 'static' keyword in Java, and how does it affect class members and methods?

## TestNG

1. What is TestNG, and how does it differ from JUnit?
2. Explain the usage of annotations like @Test, @BeforeSuite, and @DataProvider in TestNG.
3. How can you prioritize test methods in TestNG?
4. What are dependencies in TestNG, and how do you define them?
5. How do you group test methods in TestNG, and why is test grouping useful?
6. Explain the usage of 'DataProvider' with a real-world example.
7. What is the purpose of the '@Listeners' annotation in TestNG, and how can you use it?
8. How can you run TestNG tests in parallel, and what are the advantages of parallel execution?
9. What are data-driven testing and how can you implement it in TestNG?
10. Explain the concept of TestNG listeners and list a few built-in listeners.

## Manual Testing

1. What is manual testing, and when is it preferred over automation testing?
2. What is a test case, and how do you write an effective test case?
3. What is regression testing, and why is it important in manual testing?
4. Explain the difference between functional testing and non-functional testing in manual testing.
5. What is the Test Plan, and what information should it contain?
6. What are the different levels of testing (e.g., unit testing, integration testing, system testing) and their purposes in the SDLC?
7. How do you perform smoke testing and sanity testing, and what are their differences?
8. Explain the concept of equivalence partitioning in test case design.
9. What is exploratory testing, and when is it most useful in the testing process?
10. What is the purpose of a Traceability Matrix in manual testing, and how is it created?
11. Explain the difference between positive testing and negative testing in manual testing.

## Test Automation Frameworks

1. What is a Test automation framework, and why is it important in Automation testing?
2. Explain the differences between Data-Driven and Keyword-Driven test automation frameworks. When would you use each?
3. What is the Page Object Model (POM), and how does it enhance test automation maintainability?
4. Describe the principles of Behavior-Driven Development (BDD) and how it relates to test automation. Name some BDD tools.
5. How do you handle test data in a test automation framework? Can you describe a data-driven testing approach?
6. What is the role of configuration files (e.g., properties files, JSON files) in a test automation framework, and how are they useful?
7. Explain the concept of parallel execution in test automation frameworks. How does it improve testing efficiency, and what tools can you use for parallel testing?
8. How can you ensure cross-browser compatibility testing within a test automation framework?
9. Explain the concept of Page Object Model and Page Factory in Selenium. How do they simplify test automation?
10. What is the role of logging and reporting in a test automation framework, and how do you implement them effectively?

## Other Miscellaneous Questions

1. Explain how automation tests can be integrated with CI/CD tools like Jenkins.
2. Explain branching, merging, and resolving conflicts in Git.
3. Explain how to prioritize test cases for regression testing.
4. Explain how to write maintainable and reusable automation scripts.
5. What is the significance of desired capabilities in Appium? How do you set them up?
6. How do you handle mobile gestures like swipe, scroll, long-press, and pinch-zoom in Appium?
7. What is Appium Inspector, and how can it assist in element identification?
8. How do you perform parallel testing with Appium, and why is it beneficial?



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