

JAVA TOPICS

- **Introduction to Java.**
- **Variables in Java.**
- **Java Data Types.**
- **Java Operators.**
- **If-else in java.**
- **Switch-Case in java.**
- **Java For loop.**
- **Java While loop.**
- **Do-while loop in java.**
- **Java continue statement.**
- **Java break statement.**
- **Constructor in java.**
- **Static keyword in java.**
- **This keyword in java**
- **Java Inheritance with example.**
 - Type of Inheritance in java
 - Aggregation in java
 - Association in java
 - Super keyword in java
- **Polymorphism in java.**
 - Method overloading in java
 - Method overriding in java
 - Method overloading VS Method overriding.
 - Types of polymorphism in java.
- **Abstraction in java.**
 - Abstract class in java
 - Java abstract method with example
 - Interface in java
 - Abstract class vs interface
- **Encapsulation in java.**
 - Encapsulation with example
- **Java Packages with examples.**
- **Access modifiers in java.**
- **Garbage collection in java.**
- **Final Keyword vs finally vs finalize.**
- **Java Exception Handling.**
 - Try-Catch block
 - Java finally block
 - How to throw exception in java
 - Custom exception in java
 - Exception example
- **Java Collections.**
 - **List**
 - ArrayList
 - LinkedList

- **Set**
 - HashSet
 - LinkedHashMap
- **Map**
- **String in java.**
- **Java Enum.**
- **INTERVIEW QUESTIONS**

Selenium WebDriver

- **Selenium History**
 - Selenium IDE
 - Selenium RC(Remote control)
 - Selenium WebDriver
 - Selenium Grid
- **HTML Tags**
 - <form/>
 - <input/>
 - <textarea/>
 - <button/>
 - <select/>
 - <option/>
 - <frame/>
 - <frameset/>
 - <iframe/>
 -
 - <a/>
 - <link/>
 - <table/>
 - <div/>
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- **Introduction to Selenium WebDriver**
- **What is WebDriver**
 - Firefox Driver
 - Chrome Driver
 - InternetExplorerDriver
- **First Script in WebDriver**
 - Introduction to WebElement, findElement(),findElements()
 - get(),getCurrentUrl(),getPageSource(),getPageTitle()

- **What are locators?**
 - ID
 - Name
 - Link Text
 - Partial Link Text
 - CSS Selector
 - Tag and ID
 - Tag and Attribute
 - Tag, Class and Attribute
 - Xpath
 - Tag Name
 - Class name

- **Accessing Html tags**
 - Input box
 - Entering values in input boxes
 - Deleting values in input boxes
 - Buttons
 - Submit button
 - Radio button
 - Check box
 - Complete code

- **How to Select Option from Drop Down**
 - org.openqa.selenium.support.ui.Select
 - selectByVisibleText()
 - selectByValue()
 - selectByIndex()

- **Accessing links using selenium web driver**
 - Exact match
 - Partial match
 - Case-sensitivity
 - All links
 - Links outside and inside a block
 - Accessing image links

- **How to find broken images on a web page.**
- **Find broken links on website using WebDriver and http client**
- **Synchronization in selenium WebDriver**
 - **Unconditional wait**
 - **Conditional synchronization**
 - Implicit wait
 - Explicit wait
 - Fluent wait

- **Alert and popup handing in selenium WebDriver.**
 - What is alert
 - How to handle Alert in selenium WebDriver

- How to handle selenium popup window using WebDriver
- **Windows and frames handling in selenium WebDriver.**
 - Working with frames.
 - Handle windows popups.
 - Handle Authentication window.
 - Perform operations on new window.
- **Handling cookies in selenium WebDriver.**
 - Add cookies
 - Delete cookies
 - Get cookies
- **Taking screen shot in selenium WebDriver.**
- **JavaScript Executor**
- **Keyboard and Mouse event using Action class in selenium WebDriver.**
 - org.openqa.selenium.interactions.Actions
 - How to perform drag and drop.
 - Mouse move over.
 - Click on Web Element using action class.
 - Right click context menu example.
- **Handling SSL certificates in Firefox browser**
- **WebDriver Exceptions handling.**
 - NoSuchElementException
 - StaleElementReferenceException
 - TimeoutException
 - ElementNotVisibleException
 - ElementNotSelectableException
- **Handling AJAX call in selenium WebDriver**
 - What is AJAX?
 - How to handle Ajax call using selenium WebDriver.
 - Challenges in handling Ajax call in selenium WebDriver
- **Desired Capabilities in Selenium.**
 - What is desired capabilities?
 - Different types of desired capabilities methods.
 - Example for set capability methods.
- **How to configure Selenium Grid.**
 - Execute WebDriver tests in parallel using selenium grid
- **Page Object model (POM)**
 - Why POM?
 - What is POM?
 - Advantages of POM/
 - How to implement POM
- **Page factory model**
 - @FindBy annotation
 - AjaxElementLocatorFactory
- **Interview Questions**
- **Live Selenium Project**

TESTNG

- TestNG Introduction
- Installing TestNG eclipse plugin
- TestNG Test Case
- TestNG Test Suite
- TestNG Annotations, Groups & Depends On
- TestNG Prioritizing and Sequencing
- TestNG Parameters and Data provider
- Multi browser, Cross browser and Parallel testing using TestNG

MAVEN

- Importance of Maven in framework development.
- Installing and configuring maven.
- Understanding terminologies of maven.
- Creating Maven project and importing into eclipse.
- Understanding POM.xml file and its dependencies.
- Importance of surefire plugin in executing tests.

JENKINS

- Importance of Jenkins in test frameworks
- Install and configure Jenkins
- Configure Jenkins settings and workspace
- TestNG reporting plugin into Jenkins jobs

Logging framework_log4j

- What is log4j?
- Importing log4j into eclipse project.
- When to use log4j methods based on given scenarios.
- Importance of log4j.xml file.
- Understanding the xml file to control logging in test case.
- Test case logging with log4j example.