Selenium (Core Java+ Selenium)

Module -1
- What is Automation Testing?
- Why Industries are moving towards Automation?
- Selections of Tools and relative comparison
- Introduction of Selenium and Brief History of Selenium
- Explanation of Selenium and its advantages
- Evaluation of Automation Tools

Module -2
Components of Selenium and their uses
- Selenium IDE
- Selenium Grid
- Selenium WebDriver 3.14

Module – 3
- Locators in Selenium and in Selenium 4.0
- Tools to identify elements and objects
- Firebug, Chro Path, Manual Xpath and CSS Selector Writing
- IE developers tools
- Google chrome developer tools
- Locating elements by ID, Name, Link Text, XPath

Module – 4
- Selenium WebDriver
- Setting Up Eclipse
- Downloading and configuring WebDriver in Eclipse
- Converting Selenium IDE test to programming language (JAVA)

Module – 5
- Introduction of Selenium with JAVA language
- Java OOPs concept in Selenium

Note: **Refer Core Java Syllabus**

Module – 6
- Selenium WebDriver – IDE – JAVA – Junit
- Junit Annotations and JUnit Listeners
- Testng Annotations and Testng Listners
- Soft Assert and Hard Assert in Selenium
- Testng test suite creation and re run of failed test cases.
- Exceptions Handling in Selenium WebDriver
- WebDriver Interface and their methods

Module – 7
- Iframe Handling in Selenium
- Drag and Drop in Selenium
- Find Broken Links in Selenium
- Selenium Actions class and their Methods
- Multiple Window handling in Selenium
- Chrome Options and Desired Capabilities in Selenium
- Script execution in Chrome and Mozila Headless Browser

Module – 8 (Advance Topics)
- Concepts of Framework
- Utilities class and their methods

- Excel Reader and Excel Writer
- Introduction of OpenCsv, csv write and csv reader
- XML and parsing technique
- JSON and JSON parser
- Introduction of POJO class and implementation
- Introduction of JDBC and data base Testing using Automation
- WebDriver instance management using Singleton Class
- Introduction of Automation Frameworks
- Page Object Model Framework Development
- Introduction of BDD Framework Development
- BDD framework Design

Module – 9 (DEVOPS and CI/CD Topics)

- Introduction of Devops and Tools
- Introduction of Maven, configuration and uses
- Introduction of Git and Git Hub
- Git Hub Configuration, branches and commands
- Introduction of Jenkins and installation
- Jenkins Job creation and scheduling.
- Jenkins Pipeline creation
- Jenkins Plugins integration and Report Analytics

Module – 10

- Introduction of Selenium 4.0 and features
- Friendly Locators and their uses
- CDP Messages and Chrome log Testing
- Selenium Grid and configuration
- Introduction GraphQL API and their testing

Module – 10 (Interview Preparations)

- Professional Resume Writing and profile building on Job Portal
- Mock Interview sessions
- Job Referral and Interview experience sharing
- On Job Support

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