**JAVA Basic**

* Introduction to java
* History of java and JVM, JDK, JRE.
* Features or Buzzwords in java
* Identifiers
* Variables & Data Type (Primitive and non-Primitive)
* Operators
* Flow controls
  + Conditional statements – if, if else, switch case
  + Loops – while, do while, for
  + Jumping statement – break and continue
* Arrays
* String Class
* String methods

**OOPS**

* Classes and Objects
* Java methods
* Passing parameters to the methods
* Call by value and call by reference
* Java Constructor
* Encapsulation
  + setters and getters
* Polymorphism
  + Overloading Methods
  + Overloading Constructors
* this keyword
* Static variables and methods
* Inheritance
  + Types of Inheritance
  + Method Overriding
* super keyword final keyword
* Abstract Class
* Java Interface
* Java Packages
* Access Modifiers
* Data conversion functions
* Reading Input from keyboard
* Exception Handling
* comparator and comparable
* Java Collections
  + List
  + Set
  + Hash Map

**Selenium WebDriver**

* Selenium History
* Introduction to WebDriver and Architecture
* How to Create Automated test case in WebDriver?
* Execute test case on multiple browsers.
* Basic Locators – Name, ID, LinkText, PartialLinkText
* Advanced Locators – CSS, Xpath (Absolute & Relative Xpath)
* Xpath Axes
* Working with SelectorsHub
* WebDriver Commands
  + Get Commands
  + Conditional Commands
  + Navigation Commands
  + Waits – Implicit, Explicit and Fluent Waits
  + Browser Commands – close() and quit()
* Working with Web Elements
  + Filling forms, Input box, Checkbox & Radio buttons, data field
  + Dropdowns – Select Class, JQuery & Boostrap Drop Downs
  + Links & Broken Links
  + Alerts/Popups
  + Iframes
* Asset & Verify
* Handling Common Exceptions
* Working with Browser Windows
  + getWindowHandle()
  + getWindowHandles()
* How to Handle Date Picker
* How to Handle Web Tables
* Action Class
  + How to Handle Mouse Actions – Actions class
  + How to Handle Keyboard Actions
* How to Handle Upload & Download Files
* How to Scroll Web page
* How to Capture Screenshots
* How to work with Cookies
* Headless Browser Testing
* Data Driven Testing using MS-Excel- Apache POI API

**Java 8**

Theory of Functional interface, Lambda Expression, Stream API

Java Collections: All 3 iterators

Clean Code: Read Theory of SOLID, YAGNI

JavaScriptExecutor

design pattern

**TestNG**

**Extent Reports, Log4j2 & Page Object Model Page factors**

**Maven integration with Selenium**

**CI – Continuous Integration (Git, Github & Jenkins)**

**BDD – Cucumber frameworks**

Database: Joins concept, SQL Functions

**API**

API: Serialization and Deserialization Json

API: Authentication and Authorization

New

Enum

Wrapper class

Garbage collections