Java topics covered

1. Introduction to java

1. What is java
2. Programming language hierarchy
3. Java files
4. Camel casing
5. Identifiers
6. Java Components naming standards
7. Java source file declaration rules
8. First Java program

2. Classes and Objects

1. Introduction to Classes and objects
2. Understanding Java Heap
3. Creating first Class and Object

3. Variables and Operators

1. Introduction to Variables and their data types
2. Primitive and Non-primitive variables
3. Variable Casting
4. Object references
5. Java Operators

4. Java Methods and their communication

1. Introduction to methods
2. Method arguments and return types

3. Pass by Value
4. Encapsulation
5. Getters and Setters

5. Loops and Arrays

1. If-else statement
2. While loop
3. Do-while loop
4. For loop
5. Enhanced for loop
6. Arrays – 1D and 2D
7. Reference in an array

6. Understanding Java-API

1. Understanding API using ArrayList
2. ArrayList fundamentals
3. Using Java Library
4. Using Packages
5. Using HTML- API docs

7. Inheritance and Polymorphism

1. Understanding inheritance and inheritance tree
2. Methods overriding and the rules
3. IS-A and HAS-A relationship
4. Super class Vs Subclass
5. Method Overloading
6. Access Modifiers

8. Abstract Classes and Interfaces

1. Abstract classes and methods

2. Mother of all classes – "Object class"
   3. Polymorphic reference
   4. Object reference casting
   5. Deadly Diamond of Death
   6. Interfaces and it's implementation

9. Garbage Collection and Constructors

   1. Concept of Stack and Heap
   2. Methods and classes on Stack and Heap
   3. Constructors
   4. Constructor Overloading
   5. Constructor chaining and this() keyword
   6. Garbage collection eligibility

10. Statics and data formatting

   1. Static methods, variables and constants
   2. Math class and methods
   3. Wrapper classes
   4. Auto boxing
   5. Data formatting and static imports

11. Exception handling

   1. Risky java codes
   2. Introduction to Java Exceptions
   3. Catching exceptions using try/catch block
   4. The finally block
   5. Catching multiple exceptions
   6. Handle or Declare law of exceptions

Selenium Course Content

Introduction to Selenium IDE & RC:

1) What is Selenium RC?
2) How to download and configure RC
3) Difference between IDE, RC and WebDriver
4) Creating a dummy Selenium API
5) Exploring Selenium RC java doc
6) Starting and stopping selenium server
7) Download firebug and firepath
8) Open Gmail home page through RC
9) Handling elements on a WebPage
10) How to download and configure Selenium RC?
11) Creating your first RC test
12) What is Xpath
13) Tools available for finding Xpath

Selenium RC Features & Java Examples:

1) Java – Working with While & For Loops
2) Java – Arrays
3) Java – Printing tables
4) Handling HTML Elements such as: Text box, Hyperlinks, Submit buttons,
5) Radio buttons, Check boxes, Dropdown etc
6) Print all values from a Drop down list
7) Finding Elements & text on a Webpage
8) Handling Dynamic WebTables
9) Find total rows while writing a dynamic code
10) Find total columns while writing a dynamic code
11) Extracting dynamic data from rows and columns
12) Understanding Xpaths more
13) Absolute & Relative xpaths and their importance
14) Writing java code to handle dynamic elements on a WebPage

Popup/tab browsing , Online Captcha & WebDriver:

1) Concept of window names
2) How to handle pop up windows
3) How to click on elements in new tab
4) Handling Ajax Elements
5) Working with Online captchas
6) Writing a code to handle the dynamic captchas
7) Exploring Xpaths more, Creating Xpath by our own
8) Creating Xpaths to handle dynamic Elements
9) Creating Xpaths on Chrome & IE
10) Java – Interfaces
11) Java – Inheritance / Polymorphism
12) Java – Creating a dummy WebDriver API

13) What is WebDriver
14) Exploring Webdriver java docs
15) Downloading Webdriver jar files
16) Open Google home page through WebDriver
17) Exploring more features of WebDriver
18) WebDriver Features & Examples
19) Handling HTML Elements such as: Text box, Hyperlinks, Submit buttons,
20) Finding Elements & text on a Webpage

Understanding WebElement Interface:

1) Finding Elements & text on a Webpage
2) Radio buttons, Check boxes, Dropdown etc
3) Printing all values from a Dropdown box
4) Printing all links and other values from a webpage and HTML Elements
5) Using By class to find elements using different methods
6) Implement global wait
7) Running test in multiple browsers
8) Firefox profile
9) Running test in multiple profiles
10) Handling Iframes
11) Handling java script messages
12) Exploring more features of WebDriver
13) WebDriver Features & Examples
14) Handling HTML Elements such as: Text box, Hyperlinks, Submit buttons,
15) Finding Elements & text on a Webpage

WebDriver & advance features

1) Handling Windows & Tabs
2) Understanding the concept of Set & Iterators
3) Generating window ids for tabs and popups
4) Switching and handling elements in a popup and tab window
5) Event Listeners
6) Mouse movements
7) Finding Coordinates of an Element
8) What is flash/flex testing
9) Understanding the concept of Action scripts
10) Automating flash player
11) Using different call methods of YouTube flash player
12) Java – Creating Properties file
13) Java – Reading data from the properties file
14) Java – Creating Object repositories

JUNIT Course Content
JUNIT JAVA FRAMEWORK, ANT & REPORTS Generation

1) About JUnit and TestNG
2) What is a Java framework
3) Test Annotations
4) Executing the tests in sequence
5) Assertions
6) Error Collectors
7) How to parameterized our test case
8) Reading and writing in Excel
9) Using POI api for calling various excel operations
10) What is Ant
11) Configuring Ant
12) Running Selenium tests through Ant
13) Creating batch scripts for Ant execution
14) Report Generation

TestNG Course Content
TestNG JAVA FRAMEWORK, ANT & REPORTS Generation

1) About JUnit and TestNG
2) What is a Java framework
3) Test Annotations
4) Executing the tests in sequence
5) Assertions
6) Error Collectors
7) How to parameterized our test case
8) Reading and writing in Excel
9) Using POI api for calling various excel operations
10) Generating XSLT Reports
11) What is Ant
12) Configuring Ant
13) Running Selenium tests through Ant
14) Creating batch scripts for Ant execution

Two Automation Frameworks Implementation on a Live Project Using Data Driven & Page Object Model
Covers complete implementation of Data Driven Model Framework in WebDriver using TestNG:

1) Test data files
2) TestCore class which loads Xls file, run selenium server through code
3) and do other initialization
4) Object.properties file to store Xpaths
5) Configuration files
6) Skipping test cases
7) Screenshot capturing
8) Emailing test results
9) Generating Reports

10) Generating Application and Selenium logs
11) Running framework automation through ANT
12) Introduction to Page Object Model
13) Building Page Classes

Topics Included from the Architect course

1. Maven and POM.xml
2. Git, GitHub
3. Jenkins – Continious Integration

Other materials provided along with the training

➢ **PDF Files + Selenium e Books**

➢ **Life time access to videos tutorials**

➢ **Sample Resumes**

➢ **Interview Questions**

➢ **Complete Module & Frameworks Code**