Name –

Exp / Automation Background –

**JAVA (work exp / knowledge / new)**

**Expecting from this course**

**Course Content**

**Pre – Java**

1. **Basics of Java**

* Oops Concept( Abstraction, encapsulation, polymorphism & inheritance)
* JDK – Java development kit
* JRE – Java Runtime Environment
* JVM – Java Virtual Machine
* Editor – **eclipse**, netbeans, intellij,....

1. **Building blocks of Java programming**
   * **class**
     1. variables
     2. methods
     3. constructors
     4. static initialization blocks
     5. instance initialization blocks
   * **interface**
   * **abstract class**
   * **packages**
   * **looping statements**
     1. for
     2. while
     3. do,while
     4. foreach
   * **conditional statements**
     1. if
     2. if,else
     3. if,elseif, else
     4. switch
2. **Access Specifiers / Access Modifiers (Non functional Access Specifiers)**
   * private
   * default
   * protected
   * public
   * static
   * final
   * abstract
   * synchronized
3. **Data types**
   * primitive data types ->
     1. byte
     2. short
     3. int
     4. long
     5. float
     6. double
     7. char
     8. Boolean
   * derived data types ->
     1. Array
     2. Objects
     3. String
4. **String** 
   * functions available in string class
5. **Threads**
   * Multitasking – Thread
   * Multitasking – Runnable
6. **File Handling**
   * Reading File (properties file and text file )
   * Writing File
7. **Exception Handling**
   * try
   * catch
   * throw
   * throws
   * finally
8. **Collections**
   * List
     1. ArrayList
     2. LinkedList
     3. Vector
   * Set
     1. HashSet
     2. TreeSet
     3. LinkedHashSet
   * Map
     1. HashMap
     2. TreeMap
     3. LinkedHashMap
9. **Generics**

**Selenium**

* Drawbacks of manual testing
* Why Automation is needed???
* What are the different tools we have in market, Why Selenium is popular ?
* History of Selenium.
* Versions of Selenium
  + Selenium IDE ( Only for beginners )
  + ~~Selenium RC~~
  + Selenium Webdriver / Selenium 2.0 / 3.0/4.0 alpha
    - identify the elements (8 ways)
    - performing operations ( type, click, select, read text....)
    - Handling sync issues
      * static
      * dynamic
    - Actions
    - Select
    - switchto()
    - dropdowns
    - alerts
    - popups
    - Reusable functions
    - Automate end-to-end test
    - Execute tests with multiple set of test data
  + Selenium Grid
* Frameworks
  + TestNG
    - annotations
    - execute the tests
    - groups
    - skip
    - parallel execution
  + Page Object Model
* **Maven**/ Gradle – Build Automation Tool
* **Introduction to Appium**

**---------------------------------------------END-----------------------------------------------**

* Git – Version control tool
* BDD – Framework
* Jenkins – CI/CD

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