**Objective of Java Training:** Comprehensive Understanding of Programming Using Java, Spring boot to build high performing APIs with right Software Programming Practices including - Quality, Security, Performance.

**Hands on assignment –** After every week an assignment helps us assess the understanding of the topic(s)

**Duration:** **100 hours**

8 hours per week

(12 - 13 weeks) – (2.5 - 3 months)

| **Training Weeks** | **Topics** |
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| **Week 1** | Pre-read:   1. <https://www.javatpoint.com/history-of-java> 2. <https://en.wikipedia.org/wiki/Java_(programming_language)>   Topics covered:   * Java programming basics * JDK, JRE, and JVM * Variables, data types, operators, iterations, methods   Post reads – Links and hands on assignment(s)   1. <https://www.baeldung.com/java-tutorial> 2. Assignments will be shared during class |
| **Week 2** | Pre-read:   1. <https://www.studytonight.com/java/string-handling-in-java.php> 2. <https://www.javatpoint.com/java-string>   Topics covered:   * References, classes and objects * String handling |
| **Week 3** | Pre-read:   1. <https://www.javatpoint.com/java-oops-concepts>  * OOP - Abstraction, encapsulation, modularity, hierarchy * Methods Overriding, Overloading * Abstract methods and classes, interfaces, polymorphism * Packages and Access Control |
| **Week 4** | Pre-read:   1. <https://www.geeksforgeeks.org/exceptions-in-java/> 2. <https://www.geeksforgeeks.org/java-io-packag/>   Topics covered:   * Exception handling * Input Output Stream |
| **Week 5** | Pre-read:   1. <https://www.udemy.com/course/everything-you-need-to-know-about-jdbc/?couponCode=A5A6B962FD34717963B6> 2. <https://www.mysqltutorial.org/mysql-basics/>   Topics covered:   * Database Concepts * Different databases used (MySQL, Postgres, MongoDB) * Why and when to use a certain type of database * JDBC |
| **Week 6** | Pre-read:   1. <https://www.javatpoint.com/java-annotation> 2. <https://www.geeksforgeeks.org/generics-in-java/> 3. <https://www.geeksforgeeks.org/collections-in-java-2/>   Topics covered:   * Java annotations * Generics * Collection framework |
| **Week 7** | Pre-read:   1. <https://www.udemy.com/course/spring-framework-masterclass-from-basics-to-advanced/?couponCode=081A75E29415276932D5>  * Spring Basics * IOC and DI * Annotations |
| **Week 8** | Pre-read:   1. <https://www.udemy.com/course/develop-java-mvc-web-apps-using-mybatis-servlets-and-jsp/?couponCode=489693CB0E5D9EF33ADB>  * Spring MVC * Introduction to Spring boot |
| **Week 9** | Pre-read:   1. <https://www.udemy.com/course/developing-restful-java-web-services-using-spring-boot/?couponCode=FC99DC2EDC5B378D8257>  * Introduction to REST * REST Concepts * Implement CRUD   Post reads – Links and hands on assignment(s) |
| **Week 10** | * Unit testing Spring boot applications |
| **Week 11** | * Java Challenge for TMs * Assessment |