Table Of Contents (TOC)

JAVA TRAINING

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| Duration: | 10 Days |
| Description: | This course is designed by Java professionals in a way that the course will progress from introducing you to the Basic of Programming, RDBMS, OAAD to the complete Application Development Using Java, Web Technologies, and Unit Testing. |

Course Content

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| **Day 1** | * Introduction to Java & Eclipse   + Features of Java   + Evolution in Java   + Developing software in Java   + Installation and Setting up Eclipse   + Introduction to Eclipse IDE   + Creating and Managing Java Projects   + Use of Java docs * Programming Fundamental with Java   + Keywords   + Primitive Data Types   + Operators and Assignments   + Variables and Literals   + Flow Control: Java’s Control Statements   + Logic building exercise using Java Program * Arrays   + One dimensional array   + Multidimensional array   + Using varargs   + Using Arrays class |
| **Day 2** | * Exploring Java Basics   + The Object Class   + Wrapper Classes   + Type casting   + Using Scanner Class   + String Handling   + Date and Time API * Classes & Objects   + Classes and Objects   + Packages   + Access Specifiers   + Constructors - Default and Parameterized   + this reference   + using static keyword |
| **Day 3** | * OOP with Java   + Inheritance   + Using super keyword   + The instanceOf Operator   + Method & Constructor overloading   + Method overriding   + @Override annotation * Interfaces & Abstract Classes   + Abstract class   + Interfaces   + default methods   + static methods on Interface   + Runtime Polymorphism * Exception Handling   + Exception Types   + Exception Hierarchy   + Try-catch-finally   + Try-with-resources   + Multi catch blocks   + Throwing exceptions using throw   + Declaring exceptions using throws   + User defined Exceptions |
| **Day 4** | * Generics   + Generics   + Writing Generic Classes   + Using Generics with Collections * Collection Framework   + Collection Interfaces   + Implementing Classes   + Iterating Collections (using foreach & iterator)   + Comparable and Comparator * Map   + Map Interface   + Implementing Classes   + Iterating Map |
| **Day 5** | * Multi-Threading & Synchronization   + Understanding threads   + Creating worker thread and task   + Thread life cycle   + Scheduling threads- Priorities, sleep(), join()   + Object Synchronization   + Synchronized block, method |
| **Day 6** | * JDBC   + Understanding the JDBC basics   + Connecting to a database   + Concept of Database Layer   + Database operations such as select, insert, update, delete (CRUD Operation)   + Prepared statements, Callable Statements |
| **Day 7** | * Maven   + Introduction to Maven   + Installing Maven   + Using maven from command prompt   + Creating simple java project using maven from command prompt   + Importing maven project in Eclipse   + Creating maven project from Eclipse   + Understanding pom.xml   + Understanding various archtypes   + Understanding build lifecycle |
| **Day 8** | * JQuery   + Why to use jQuery, Intro, Syntax   + jQuery Selectors, Events, Hide/Show   + jQuery Fade, Slide, Animate, stop()   + jQuery Callback, Chaining   + jQuery Get, Set, Add, Remove   + jQuery CSS Classes   + jQuery css()   + jQuery Dimensions   + jQuery Table Grids   + jQuery AJAX Intro   + jQuery Load   + jQuery Get/Post   + jQuery supported plugins * Getting started   + Introduction to Servlet Technology   + Setting up Servlet programming environment   + Writing and deploying first Servlet   + Role of web server * Servlet's Life Cycle   + Servlet Lifecycle   + Servlet API   + init(), service() and destroy() methods   + The doGet and doPost methods   + The servlet api |
| **Day 9 & 10** | * Request Redirection & Dispatching   + The Request Dispatcher   + The forward and include requests   + Sending request between servlets   + Redirection   + Linking to another websites * JSP Technology   + Introduction to JSP Technology   + Writing and deploying first .jsp program   + Basic Syntax of JSP Elements   + JSP Life Cycle   + JSP scripting elements: Declarations, Scriptlets and Expressions * Predefined Variables and Page Directives   + Using predefined variables   + Handling response using response variable   + Using Page directives   + Exception handling in JSP, Error Page * MVC architecture   + The MVC Architecture   + The Front Controller   + Dispatching requests between Servlet and JSP * Accessing Databases with JDBC * Application packaging and deployment   + Packaging Applications   + Creating .war file   + Deployment war file in tomcat 9.x |