Java Training (Beginner)

1. Introduction to Java

- What is Java?
- Java Features
- Sample Java Program
- ➤ JDK, JRE and JVM
- Java Variables
- Java Data Types
- Operators
- Keywords

2. Control Statements

- Java Control Statements
- > If-else
- Java Switch
- ➤ For Loop
- While Loop
- Do While Loop
- Java Break
- Java Continue
- Java Comments

3. Object Class

- Object and Class
- Method
- Constructor
- Static keyword
- This keyword

4. Java OOPs Concepts

- Java Inheritance
 - ➤ Inheritance (IS-A)
 - Aggregation (HAS-A)
- Java Polymorphism
 - Method Overloading
 - Method Overriding
 - super keyword
 - final keywords
 - > Runtime Polymorphism
 - Dynamic Binding

- Java Abstraction
 - Abstract Class
 - Interface
- Java Encapsulation
 - Package
 - Access Modifiers
 - Encapsulation

5. Java Inner Class

6. Java String and Array

- Java String and operations on String
- Java Array and Types of Arrays

7. Exceptional Handling

- Java Exceptions
- > Try Catch block
- Nested Try
- ➤ Multi Catch
- > Finally block
- > Throw Keyword
- Throws Keyword

8. Multi-threading in Java and Synchronization

- ➤ Life cycle of a thread
- > Thread Creation
- Sleeping a thread
- > run() method
- Daemon thread
- > Thread pool
- Thread group
- Garbage Collection
- > Synchronization in Java
- Dead lock in Java

9. Java I/O and Serialization

- Java Input/Output
- > File Input/Output Streams
- Buffered Input/Output Streams
- > File Permission
- Writer/Reader
- > File
- Java Serialization
- Java Transient keyword

10. Java Collections

- > Collection Framework
- ArrayList, LinkedList
- List interface
- ➤ Hashset, Linked Hashset
- Java Treeset
- Queue and Priority Queue
- Deque and ArrayDeque
- Map interface
- ➤ Hashmap. LinkedHashmap
- > Treemap
- HashTable
- Collections class
- > Collection Interface

11. Java JDBC

- > JDBC Driver
- > DB Connectivity steps
- Connectivity with MySQL
- Driver Manager
- Connection, Statement, ResultSet, PreparedStatement