



## Java Training

### Training Topics

#### Fundamentals of Java and Oops

- What is OOPS?
- Necessity of OOPS
- Advantage of OOPS
- OOPS Design

#### Classes and Objects

- Relation between a Class and an Object
- Components of a Class
- Constructors
- Methods
- Variables
- Datatypes
- Primitive Datatypes
- Reference Datatypes
- User defined / Custom Datatypes

#### Oops Concepts

- Instantiation
- Inheritance
- The "extends" keyword
- Types of Inheritance
- Single Inheritance
- Multilevel Inheritance



- Multiple Inheritances
- Hierarchical Inheritance
- Hybrid Inheritance

## Interfaces and Commenting

- Interfaces
- Abstract Methods
- 'Implements' keyword
- Types of Interfaces
- Tag or Marker Interface
- Serialization
- Annotations
- Types of commenting in Java
- Single line comment
- Multi-line or Block comment
- Documentation comment

## Abstract Class

- The "abstract" keyword
- Abstract Methods
- Implementation of Abstract Methods
- Uses of Abstract Classes

## Polymorphism, Overloading and Overriding

- Overloading
- Operator Overloading
- Method Overloading
- Uses of Overloading
- Conditions of Overloading
- Overriding
- Scenario of Overriding
- Difference between Overloading and Overriding



## Conditionals and Loops

- IF conditionals
- IF-ELSE conditionals
- IF-ELSE-IF conditionals
- SWITCH-CASE statements
- The "break" and "continue" keywords
- The "FOR LOOP"
- "WHILE" LOOP
- "DO-WHILE" LOOP
- ENHANCED "FOR" LOOP

## Collections Framework

- The "Collection" Interface
- List, Set and Map Interfaces
- Iterator
- Implementation Classes
- Types of Implementations

## Generics

- Generics in Java
- Type of Generics
- Uses and Limitations of Generics

## Jdbc Connectivity

- DriverManager class
- Loading the drivers
- Connection, Statement, PreparedStatement, ExecuteStatement classes
- ResultSet and Cursors
- Navigating the ResultSet using Iterators and Cursors



## Java EE / J2EE Training Topics

### Chapter 1

- Introducing J2EE and EJBs
- The Challenge of N-Tier Development
- The J2EE Platform and Roles
- Naming and Directory Services
- Introduction to EJBs
- Session EJBs
- Entity EJBs
- CMP and EJB QL

### Chapter 2

- Developing J2EE Applications
- Transactions and Persistence
- Java Message Service
- Message-Driven Beans
- JavaMail
- Servlets
- JavaServer Pages
- JSP Tag Libraries

### Chapter 3

- Integrating J2EE into the Enterprise
- Security
- Integrating XML with J2EE
- Transforming XML Documents
- Patterns
- Integrating with External Resources
- Using RPC-Style Web Services with J2EE
- Web Service Registries and Message-Style Web Services