

## JAVA COURSE CONTENT

### Basic Java:

- Introduction to Java
- Java Architecture
- Java Features
- Java OOPS Concepts (Class, method, Object)
- Java Identifiers, keywords
- Java Primitive Data types
- Operators, Variables
- Conditional statements
- Looping Statements
- Arrays
- Command Line Arguments
- Type Casting
- Inheritance
- Polymorphism
- Constructors
- Access Specifiers
- Static, Final, Super, Abstract Keywords
- Wrapper Classes
- Interface
- Packages
- String Operations
- Exception Handling
- Multithreading
- IO streams
- Collections
- Java 8 Features

### Java Database connectivity (JDBC):

- JDBC Introduction
- Database Models
- Database Designs
- java.sql Package
- Connection, Statement, ResultSet
- PreparedStatement
- Callable Statement
- Scrollable ResultSet
- DatabaseMetaData
- Driver Types
- Transactions (Commit & Rollback)
- Batch Processing

## **Server side Technologies:**

Introduction to Internet/Web application

### **Servlets**

- GenericServlet
- HttpServlet
- Servlet Collaboration
- Session Tracking
- Filters
- Database connection with Servlets

### **Java Server Pages (JSP)**

- Implicit Objects
- Directives
- Actions
- Custom Tag Libraries
- Database connection with JSP
- Deployment with War file
- JDBC connection Pooling

### **STRUTS:**

- MVC Architecture
- Struts Basic programs
- Struts Validation
- Internationalization
- Struts Tiles framework
- Struts with Database Integration

### **FRAMEWORKS:**

#### **HIBERNATE:**

- Hibernate Overview
- Hibernate Architecture
- Hibernate Annotations
- HQL
- Native SQL
- Criteria
- Transaction Management
- Inheritance Mapping

#### **SPRING:**

- Spring overview
- Spring core
- Bean scope
- Constructor injection

- Inner Beans
- Injecting collection
- Auto Wiring
- Spring DAO
- Spring JDBC
- Spring ORM
- Spring MVC

### **Integrated Development Environments (IDE):**

MyEclipse

### **SERVERS:**

- Apache Tomcat server
- Web logic server

### **Misc:**

- HTML(Basics)
- XML(Basics)
- JavaScript(Basics)
- CSS(Basics)
- Database(MySQL)(Basics)

### **Note:**

- Our top priority is to strengthen your logical thinking and prepare you to tackle programming Challenges across various platforms. Every topic will be presented with multiple examples.
- Learn how to analyze a problem to reach the best possible solution.
- Topics listed are not in the order they will be covered.