

Core and Advanced Java - Course Contents

Core Java

- Introduction to Java
- Programming Concepts of Basic Java
- Language Features
- Data Type, Variables
- Operator
- Control Statements
- Object oriented concepts
- Naming Conventions
- Objects and Classes
- Inheritance
- Polymorphism
- Arrays and String
- Wrapper Classes
- Packages and Interfaces
- Access Modifiers
- Exception Handling
- Multithreading
- Nested Classes
- Applets
- File IO and Streams
- Java Serialization

Advanced Java

- Generics
- Collections Framework
 - Arrays
 - Collection Interfaces
 - List
 - Map
 - Set
 - Concrete Collections
 - ArrayList
 - HashMap
 - HashSet
 - Iterator

- Java Beans
- XML Basics
- HTML Basics
- Basics of Web Application
- WebServer, Container basics

- JSP
 - Basics of JSP
 - JSP Lifecycle
 - Scripting elements
 - Scriptlet tag
 - Expression tag
 - Implicit objects
 - Directive Elements
 - JSP Exception Handling
 - Error Pages
 - Action Elements
 - Java Beans in JSP
 - Custom tags

- Servlets
 - Servlet API
 - Generic Servlet
 - HttpServlet
 - Servlet Lifecycle
 - HttpRequest, HttpResponse
 - Request Dispatcher
 - ServletConfig
 - ServletContext
 - Attributes
 - Session Tracking
 - Cookies
 - Hidden form field
 - URL Rewriting
 - HttpSession
 - Filters

- JDBC

- Introduction

- JDBC Drivers

- Connectivity with MySQL

- Statement

- PreparedStatement

- CallableStatement

- ResultSet

- ResultSetMetaData

- DatabaseMetaData

- Batch Processing

- TransactionManagement

- Overview of Model View Controller (MVC) pattern by creating a sample Web Application.