

Advanced JAVA

Advance JDBC Programming

- Overview of Database Driver Architecture
- J2EE Syllabus
- Filtering Request and Response
- Programming Filter
- Filter Mapping
- Introduction to JDBC Standard Extension API (javax.sql)
- Connection Pooling
- JDBC Programming with MYSQL, etc.
- Batch Processing
- Connecting to non-conventional databases
- Use of Excel API
- Working with Multiple Databases
- Handling SQL escape syntax
- Calling SQL functions, Database stored procedures
- Dealing with Database Metadata
- Handling Binary Data (Operation on Image File)
- Type mapping & SQL Data types

Introduction to J2EE

- J2EE Overview
- Why J2EE?
- J2EE Architecture
- J2EE APIs
- J2EE Containers

Servlet

- Web Application Basics.
- Architecture and challenges of Web Application.
- Introduction to servlet
- Servlet life cycle
- Developing and Deploying Servlets
- Exploring Deployment Descriptor (web.xml).
- Handling Request and Response
- Initializing a Servlet
- Accessing Database
- Servlet Chaining
- Session Tracking & Management
- Dealing with cookies
- Transferring Request
- Accessing Web Context

- Passing INIT and CONTEXT Parameter
- Sharing information using scope object
- Controlling concurrent access
- User Authentication
- Filtering Request and Response
- Programming Filter
- Filter Mapping
- Servlet Listeners

Java Server Pages

- Basic JSP Architecture
- Life Cycle of JSP (Translation, compilation)
- JSP Tags and Expressions
- Role of JSP in MVC-2
- JSP with Database
- JSP Implicit Objects
- Tag Libraries
- JSP Expression Language (EL)
- Using Custom Tag
- JSP Capabilities:
- Exception Handling
- Session Management
- Directives
- JSP with Java Bean

RMI (Remote Method Invocation)

- RMI overview
- RMI architecture
- Example demonstrating RMI

JNDI (Java Naming and Directory Interface)

- JNDI overview
- JNDI API
- Context operations
- Using JNDI in J2EE applications

Other

- Java Mail
- JMS
- ANT
- Log4J

- Design Pattern

Servers

Tomcat , WebLogic

Databases

MySQL, MongoDB

JAX – RS

(Restful Service)

- What is JAX – RS
- Need for JAX – RS
- Web Services VS Web Resource
- Building Web Resource using JAX – RS SUN Jersey implementation
- Building a Web Resource client using Apache Commons HTTP Client API
- What is ws – address, ws – security, ws – atomic transactions