

J2EE

Java Platform, Enterprise Edition 5 (Java EE 5)

Core Java EE

- Java EE 5 Platform Overview
- Java EE Platform – Distributed Multi tiered Applications
- Java EE – Web & Business Components
- Java EE Containers – services & types
- Java EE Application Assembly & Deployment – Packaging Applications, Java EE modules
- Getting Started with Web Applications
- Model View Controller (MVC)2 Architecture & Packaging EJB Module

APPLICATION DEPLOYMENT

- Web application development and deployment Steps
- Configuring Web application – Web application deployment descriptor (web.xml file)
- Web Application Archive (*.WAR file) – *.WAR directory structure
- Building & Deploying Applications, Ant build tool

Advanced Java EE – Web & Business Components Development

SERVLETS

- Servlet Overview
- Life cycle of Servlet
- Handling Client HTTP Request & Server HTTP Response

Practical (Hands-on Working Examples)

- Initializing Parameters & ServletContext

- Initializing a Servlet

- ServletContext initialization Parameters

- ServletContext Attributes (Context binder)

Practical (Hands-on Working Examples)

- Session Management, Request Dispatcher & Redirecting

Practical (Hands-on Working Examples)

JSP

- Overview of JSP
- JSP Architecture & life cycle
- Components of Java Server Pages

Practical (Hands-on Examples)

- Implicit Objects & Standard JSP Tags

Practical (Hands-on Working Examples)

- Scope of JSP objects

Practical (Hands-on Working Examples)

JDBC

- JDBC Overview & Architecture
- Step By Step Usage of JDBC API
- Connecting to Oracle 10g XE Database in Java

Practical (Hands-on Working Examples)

- Prepared Statement & JDBC Transactions
Practical (Hands-on Working Examples)

Developing Web Application with MySQL / Oracle 10g XE Database by implementing Java Beans, DAO's & MVC2 Architecture

Enterprise Java Beans (EJB 3.0)

- EJB 3.0 overview & Architecture
- Features of EJB 3.0
- About Session Beans
- EJB 3.0 Persistence Programming Model
- Java EE Application Assembly and Deployment – Anatomy of EJB Module & Packaging
- Java Persistence API
- Designing a Java Enterprise Application

Developing EJB3 Module using Stateless, Stateful Session Beans & Entity Beans. And creating an Enterprise Application Project using Eclipse Indigo 3.7.1 + JBOSS v5.0 + MySQL 5.0

FRAMEWORKS

Struts2 FRAMEWORK

- Struts2 Basics & Architecture
- Struts Request Handling Life Cycle
- Struts2 Configuration, Struts2 Actions, Struts2 Interceptors, Struts2 Results, Struts2 Value Stack/OGNL
Practical (Building Struts2 Framework Application)
- Struts2 Tag Libraries
- Struts2 XML Based Validations
Practical (Building Struts2 XML based Validation Application)
- Struts2 Database Access

Hibernate

- Introduction to Hibernate, ORM Overview, Hibernate Environment
- Hibernate Architecture & API, Hibernate Configuration, Hibernate Sessions, Persistent Class & Mapping Files
- Building Hibernate application, Hibernate Query Language (HQL)
- Hibernate O/R Mappings – Collection & Association Mappings
 - Many-to-One
 - One-to-One
 - One-to-Many
 - Many-to-Many

Implementing Hibernate in Java Web Applications using Eclipse Indigo 3.7.1 + JBOSS v5.0 with MySQL 5.5

- Hibernate Annotations

Spring

- Introduction to Spring Framework Architecture
- Bean Definition, Bean Scopes & Bean Definition Inheritance
- Spring IoC Containers, Understanding inversion of control (IoC) – Dependency Injection (DI)
- Spring Setter Injection, Spring Constructor Injection
- Ioc in Action
- Architecture of Spring Web MVC Framework
- Spring MVC Getting Started – constructing web MVC application using Spring Framework, AbstractController in Spring MVC
- Spring MVC Controllers hierarchy
- SimpleFormController, Spring DAO design pattern

Building Spring MVC Framework Applications by using Eclipse Indigo 3.7.1 + JBOSS v5.0

