

Advance Java (J2EE)



Course Description:

This hands on course introduces experienced programmers to Java™ technology and Java programming techniques. The Java platform provides an object-oriented, portable and robust framework for application development. Included are advance language concepts including jsp,servlets and standard function libraries.

The course emphasizes object oriented programming and modular design to support distributed development environments. Included are the design patterns,rmi and the details about how to use web services .The course also includes coverage of the Java Collections API, Ejb and SOA.

The course is designed to leverage the participants' existing programming skills and to highlight the new and extended features of the Java programming framework as compared to other common languages. Comprehensive hands on exercises are integrated throughout to reinforce learning and develop real competency.

The students would learn to create desktop applications, use various technologies in J2EE, and Servlets to make complicated networks simple and manageable. JAVA J2EE makes the students job ready, conceptually and fundamentally strong in the language through hands on approach.

Students get plenty of exercises and projects to test and try all the concepts taught to them. This training creates a strong foundation for those wanting to take up Sun Java Certified Web Component Developer examination (SJCWCD). All courses OF JAVA are designed by subject

experts and rendered by professionals who have worked in the technology. Also, we had carried out various projects on JAVA technology and thus has an edge over others offering the same course.

INTEGER Innovation knows what the industry expects from JAVA professionals and has structured the JAVA J2EE course with real time application requirements in mind. Thus our students are equipped to be productive from the day 1 on the job.

Course Prerequisites:

Knowledge and experience with java & Object-Oriented Design (OOD) is helpful

Target Audience:

This course is specially designed for the B.Tech/B.E (CSE/IT/EEE/ECE/Mech) and all other IT related Graduates and Post Graduate students. Mission Professionalism has conquered the job scenario and companies seek for well qualified, professional and skilled manpower. Quality Education and Performance Oriented Training is our motto.

What Student/Professionals Will Learn?

- The advantages of using the Java platform
- How to code, compile and run java code on application server
- Designing and writing Java classes suitable for a jsp and servlets
- Writing robust J2EE code that gracefully handles run-time problems
- Student will learn message driven bins along with JNDI API
- How to dynamically load stub classes
- How to use design patterns
- How to use web services

COURSE-CONTENT:

Module –1: Collection framework

- ArrayList class
- LinkedList class
- ListIterator interface
- HashSet class
- LinkedHashSet class

- TreeSet class
- PriorityQueue class
- Map interface
- HashMap class
- LinkedHashMap class
- TreeMap class
- Hashtable class
- Sorting
- Comparable interface
- Comparator interface
- Properties class in Java

Module –2: Servlets

- Servlet Interaction & Advanced Servlets
- Life cycle of Servlet
- Java Servlet Development Kit
- Javax.servlet package
- Reading Servlet Parameters
- Reading Initialization Parameters
- The javax.servlet.http Package
- Handling HTTP

Module–3: Java Database Connectivity

- JDBC Product
- Types of Drivers
- Two-Tier Client/Server Model
- Three-Tier Client/Sever Model
- Basic Steps of JDBC
- Creating and Executing SQL Statement
- The Result Set Object
- Working with Database MetaData
- Interface

Module 4: Java Server Pages

- JSP Technologies

- Understanding the Client-Server Model
- Understanding Web server software
- Configuring the JSP Server
- Handling JSP Errors
- JSP Translation Time Errors
- JSP Request Time Errors
- Creating a JSP Error Page

Module 5: RMI

- RMI Architecture
- Designing RMI application
- Executing RMI application

Module 6: EJB

- Types of EnterpriseJava beans
- Session Bean & Entity Bean
- Features of Session Bean
- Life-cycle of Stateful Seession Bean
- Features of Entity Bean
- Life-cycle of Entity Bean
- Container-managed Transactions
- Bean-managed Transactions
- Implementing a container-manged Entity Bean

Module 7: Web Services

- Introduction to SOA and WebServices
- SOAP based WebServices and RestFull WebServices
- Introduction to XML, XSLT, DTD and XML Schema
- Introduction to JAX-WS and WebServices Protocol Stack
- Introduction to JAX-RPC and SOAP
- Introduction to JAXP parsers –DOM and SAX parsers
- Introduction to JAXB
- Java/J2EE Training Course Overview
- SOAP message format
- WSDL file format

- Publishing and consuming WebServices
- Introduction to WebServices Engine –Apache Axis 2

Module 8: Java Design Patterns

- Introduction to OOD and Design Pattern
- Creational Design Patterns: Singleton, Factory, Builder, Prototype, Object Pool
- Behavioral Design Patterns: Command Pattern, Iterator, Observer
- Structural Design Patterns: Adapter, Decorator
- Service oriented Architecture (SOA) design pattern
- Model-View-Controller (MVC) design pattern
- Java/J2EE Training Course Overview

INTEGER Innovation will provide:

- Training Slides taught during training by trainers
- Programmatic Examples
- Assignments of each topic in a module
- Demos executed during training session.
- Software's and installation guide (for future help)
- E-books for further reading in depth
- Reference links
- 24X7 online support for any queries or doubts.