

CURRICULUM

ADVANCE JAVA & J2EE (JAVA 2 ENTERPRISE EDITION)

» COLLECTION FRAMEWORK

- The Collection Interfaces (List, Set, SortedSet)
- The Collection Classes (ArrayList, LinkedList, HashSet, TreeSet)
- Accessing a Collection via an Iterator
- Working with Maps
- Working with Comparators
- The Collection Algorithms
- The Legacy Classes and Interfaces (Enumeration, Vector, Stack, Dictionary, Hashtable)
- Date and Time Handling

» SYSTEM PROPERTIES & INTERNATIONALIZATION

- Usage of Property file
- Define the Locale
- ResourceBundle
- Fetching text from ResourceBundle

» REMOTE METHOD INVOCATION (RMI)

- Distributed Applications
- RMI Architecture
- Implementation
- Call-back Mechanism

» DATABASE PROGRAMMING USING JDBC

- JDBC Drivers
- Statements
- Metadata
- Scrollable & Updatable ResultSet
- Batch Updates
- Data Source & Connection Pooling
- Rowsets

» **INTRODUCTION TO J2EE ARCHITECTURE**

TIER ARCHITECTURE

- Single Tier
- Two Tier
- Three Tier
- N Tier

J2EE COMPONENTS

- Web Components
- Business Components

J2EE CONTAINERS

- Container Types
- Container Services

» **J2EE SERVICES**

- Java Naming and DirectoryInterface
- Java Transaction Service
- Java Messaging Service
- Java Authentication & Authorization Service

» **INTRODUCTION TO UML**

- Use Cases
- Diagrams

» **INTRODUCTION TO XML**

- Document Type Definition (DTD)
- Schemas

» **JAVA SERVLET**

- Introduction to Web Programming
- Advantages of Servlets
- Servlet Lifecycle
- Request Dispatching
- Session Tracking
- Event Listener
- Filters

» **JAVA SERVER PAGES (JSP) & JSTL**

- JSP Architecture
- JSP Elements
- JSP Objects
- Custom Tags
- Using tags of JSTL
- Expression Language

» **ENTERPRISE JAVA BEANS (EJB - 3.0)**

- JAVA PERSISTENCE API
- INTRODUCTION
- ARCHITECTURE
- TYPES OF EJB

» **SESSION BEANS**

- Introduction
- State Management
- Life Cycle
- Types
 - Stateless
 - Statefull

» **ENTITY BEANS**

- Introduction
- Persistence
- Life Cycle
- Types
 - Container Managed Persistent (CMP) 2.0
 - Introduction
 - Primary Key Class
 - EJB Methods
 - EJB QL
 - Syntax
 - Clauses
 - Bean Managed Persistent (BMP)
 - Introduction
 - Implementation
 - EJB Relationships

» **MESSAGE DRIVEN BEANS & JMS**

- Messaging Overview
- Messaging Models
 - Point to Point Model
 - Topic Subscriber Model
- JMS Implementation

» **TRANSACTIONS**

- Introduction
- ACID Properties
- Transaction Requirements
- Container managed transactions
- Bean Managed Transactions
- Distributed Transactions
- Two Phase Commit

» **J2EE DESIGN PATTERN**

- Why Design Patterns?
- Front Controller
- Composite View
- Session Façade
- Service Locator
- Data Access Object
- Value Object

» **JAVA MAIL**

- Email System & Protocols
- Architecture
- Sending mails
- Receiving mails
- Handling attachments
- Replying & Forwarding

» **PACKAGING & DEPLOYMENT USING ANT**

INTRODUCTION TO WEB SERVICES

- A Conceptual overview of Web Services
- Web Services Requirements
- SOAP
- WSDL
- UDDI

» **UTILITIES**

- My Eclipse 6.0

» **WEB SERVER**

- Apache Tomcat 6.0

» **APPLICATION SERVER.**

- Bea's Weblogic 10.0
- J Boss
- Sun Application Server
- Webshere

» What is Live Project?

» Project Phases

» What is Project Life Cycle?

» Software Development Cycle

» What is Project Team?

» What does Project Team do?

» Roles and Responsibilities