

Architecting enterprise applications using JSE and JEE Design Patterns

Training Details:

Duration :	3 Days
Objectives and Take away :	<p>This course is to enable the J2EE developers to understand the J2EE designing the Framework strategies so that the best J2EE applications they develop would have the best performance.</p> <p>Take away: Insight of product designing which is easily and economically maintainable, scalable, extendible, flexible etc.</p>
Participants' Entry Profile :	The Syllabus is designed for Senior Java/J2EE developers to get an overview of the technologies related to Java. The session will comprise of the following things. Brief overview of each concept and technology. Examples will be provided in few important areas.
Training Methodology :	<p>The workshop will follow Synergetics methodology of</p> <p>Concept Visualization Active Experimentation Application Development.</p> <p>The training will be equal composition of conceptual understanding and Hands-On with each participant having access to system during the session</p>

Setup Requirements

Hardware and Software Requirements:	<p>Participant's as well as Trainer's Machine are required to have :</p> <p>Hardware</p> <ul style="list-style-type: none"> Intel Core i3 2.2 GHz 80 GB HDD LCD Color Monitor 2 GB RAM LAN Connectivity <p>Software</p> <ul style="list-style-type: none"> Windows XP or 7 Internet Explorer 10 or above/Chrome/Firefox Java SDK 1.7.x Java Docs for 1.7.x JDBC Driver for Oracle (ojdbc6.jar) Oracle 10g/11g/MS-SQL 2008 onwards Eclipse JSE 4.0.x onwards Tomcat web server 7.0 MS Office 2007 onwards <ul style="list-style-type: none"> • The installable must match in bits of the machine. • A shared disk-space among participants and trainer for trainer to share training stuff with participants. • Internet connection to fetch maven dependencies .
Training Lab Requirements:	<p>Whiteboard 6 feet by 4 feet (minimum)</p> <p>Whiteboard markers – Red, Blue, Green, Black</p> <p>Video Projector (1024 X 768 resolutions)</p>

Pre-requisite for training

A skill-set equivalent to Synergetics-

- A development experience of 2 years in Java is recommended.
- Working with basic Programming construct.
- Application Development using OOPS.
- Making robust application by Handling Errors and Exception
- Java Collections Framework & choosing right collection in a scenario
- Multithreading and Concurrency API
- Java Reflection, Annotations, Enumeration
- Architecture of Servlet-JSP technology
- Dispatching, Redirection & Session Tracking
- Filters & Listeners
- Standard tags- JSTL and Custom tags
- Basic web security
- Production environment and deployment
- Experiencing development of a web site using Servlet, JSP and JDBC.

Course Content

Day 1	<ul style="list-style-type: none"> ➤ Getting started <ul style="list-style-type: none"> ▪ Introduction to Design patterns ▪ Importance in application designing canvas ▪ Creational, Behavioural and Structural patterns ➤ Creational Patterns <ul style="list-style-type: none"> ▪ Factory method pattern ▪ Singleton pattern ▪ Builder pattern ▪ Prototype pattern ➤ Behavioral Patterns <ul style="list-style-type: none"> ▪ Command pattern ▪ Interpreter pattern ▪ Observer pattern ▪ Iterator pattern ▪ Template method pattern
Day 2	<ul style="list-style-type: none"> ▪ Visitor pattern ▪ Chain of Responsibility ▪ State pattern ▪ Strategy pattern ▪ Memento pattern ▪ Mediator pattern ➤ Structural Patterns <ul style="list-style-type: none"> ▪ Facade pattern ▪ Adapter pattern ▪ Bridge pattern ▪ Decorator pattern ▪ Composite pattern ▪ Flyweight and Proxy pattern

Day 3**➤ JEE Design patterns for Web Application**

- Front controller and decorating filter
- Composite view pattern
- View helper pattern
- Service to worker
- Dispatcher view

➤ JEE Design patterns for enterprise application

- Business Delegate
- Service Locator

- Session Facade
- Message Facade
- Intercepting filters
- Value object
- Data Transfer Object
- Data Access Object
- Value Assembler

➤ Anti-patterns and identifying them

Anti-patterns faced often-in design and analysis and learning