

### **J2EE Patterns**

This course outlines the core J2EE patterns prescribed by Sun. This program uses a problem solving methodology to identify the pattern and to bring about a better understanding of each design pattern.

#### **Learning Objectives:**

1. Objectives of design patterns
2. Understand the typical problems that patterns help in solving
3. Identify the right pattern for a particular problem
4. Be able to articulate the usage of the all J2EE patterns

#### **Duration:**

**2 days** classroom based training that includes Instructor Led Training (ILT) session with problems and solutions to help in pattern identification.

#### **Course Outline:**

##### **Day One:**

- UML
  - Introduction to UML notation
  - Sequence diagram notation
  - Class diagram notation
- What are patterns
  - How patterns are defined
  - Difference between GoF and J2EE patterns
  - How to apply the patterns knowledge in real designs
- Presentation Tier Patterns
  - Front Controller
  - Intercepting filter
  - Composite view
  - View Helper
  - Application Controller
  - Dispatcher view
  - Service-to-worker
- **Exercise:** Designing a presentation tier solution with appropriate patterns for a given case study.

##### **Day Two:**

- Business Tier Patterns
  - Session Façade

- Business delegate
  - Application service
  - Service Locator
  - Transfer Object
  - Business Object
  - Composite Entity
  - Value list handler
  - Transfer Object assembler
- Integration Tier Patterns
- Service Activator
  - Domain store
  - Web Service Broker
  - Data access Object
- **Exercise:** Designing the business and integration tier solution with appropriate patterns for the same case study

**Mode of Delivery:**

- Instructor Led Training using presentation and demonstration of application design in UML
- Design exercise to reinforce the learning

**Language Dependency:**

- All examples and demonstrations will use Java / J2EE platform examples and UML diagrams (class diagrams and sequence diagrams)

**Pre-requisites:**

All participants need to satisfy the following pre-requisites

- Should have experience in JAVA / J2EE application development
  - Should have participated in the design of a project or a module or at least a complete user flow as a team member if not a lead.
  - Good knowledge of various J2EE packages and layered approach to design
- UML notation knowledge, specifically for sequence diagrams and class diagrams is a nice to have.