Module 1
Java EE Platform

Objectives
► Describe the needs of enterprise applications and how the Java EE platform addresses these needs
► Describe the Java Platform, Enterprise Edition 5 Specification (Java EE platform 5) APIs and supporting services
► Describe the Java EE platform tiers and architectures
► Describe how to simplify Java EE application development using architecture patterns
Java EE Platform

► Is an architecture for implementing enterprise-class applications
► Uses Java and Internet technology
► Has a primary goal of simplifying the development of enterprise-class applications through an application model that is:
  – Vendor-neutral
  – Component-based

Java Technology Platforms

Developing Applications for Java EE Platform
Enterprise Application Infrastructure Technologies

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<tr>
<th>Single-User Business Application</th>
<th>Multi-User Enterprise Application</th>
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<td>Enterprise Infrastructure Requirement</td>
<td>Technology or Domain</td>
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<td>User authentication</td>
<td>Security domain technologies</td>
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<td>Multi-user support</td>
<td>Multithreading technologies</td>
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<td>Data preservation</td>
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<td>Client-tier communications</td>
<td>Networking and distributed object technologies</td>
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<td>Communication with other enterprise and legacy applications</td>
<td>Messaging, connector, and related technologies</td>
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<td>Service location assistance</td>
<td>Naming service technologies</td>
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Developing Applications for Java EE Platform

Java EE Technology Suite

Developing Applications for Java EE Platform
Java EE Specifications
and
the Java Community Process (JCP)

Component, API, and Service Layer
Java EE Component Containers

Advantages of Using Server-Provided Services
Java EE Platform APIs and Services

Java EE service categories

- Deployment-based services
- API-based services
- Inherent services
- Vendor-specific functionality

Java EE Service Infrastructure
The N-tier architectural model:

- Programmatically separates application functionality across three or more tiers
- Has tier components and tier infrastructure that is uniquely suited to a particular task
- Has programmatic interfaces that define the tier boundaries
Java EE Application Architecture

Web-centric architecture
- Combined web and EJB™ component-based architecture, sometimes called EJB component-centric architecture
- Business-to-business (B2B) application architecture
- Web service application architecture

Java EE Web-Centric Architecture
Java EE EJB Component-Centric Architecture

Developing Applications for Java EE Platform

B2B Application Architecture

Developing Applications for Java EE Platform
Java EE Web Service Architecture

Developed by the Java software group
Provide a set of guidelines and sample application
Used as a reference when designing and developing a Java EE application or Java EE application components
Known as the Java BluePrints Solutions Catalog for Java EE 5