

## **Enterprise Application Development**

**3 Credit Hours**

### **Objectives**

This course intends to teach the technologies underpinning modern enterprise wide applications including client-server, distributed and object-based systems. The purpose of the course is to explain the role of enterprise java beans in enterprise application development and its relationship to other J2ee technologies such as JSP, Servlets, JMS, CORBA and xml .This course includes explanation of EJB architecture: role of EJB container, transaction control, authorization control and object pooling and EJB development lifecycle: Java source code compilation, XML deployment descriptors, EJB compilation and deployment and use by an application server. It will provide a sound foundation for distributed application development. Emphasis of the course is on enterprise level development of applications. The following topics will be covered in this course: Overview of enterprise Java beans: Component architecture and service oriented architecture, Enterprise application design issues , Distributed computing model applying RMI, Naming and directory service(JNDI,LDAP) overview, Enterprise Fundamentals: Enterprise beans overview ,types of beans ,Entity beans: CMP,BMP and session beans: Stateless session beans and stateful session beans, Development of an EJB component: Remote interface ,Home interface, local interface, local home interface, bean class ,deployment descriptor and bean deployment Introduction to JMS and MDBs, Introduction to Jini ,Introduction to Java namespaces, Introduction to Java Mail API, Introduction to Java cryptography, Model view controller.

### **Prerequisites**

Internet Programming

**Text Book**

Ed Roman and Gerald brose, *Mastering Enterprise Java beans*, 3rd Edition.

**Reference Books**

- Floyd marinescu, EJB design patterns.
- SubrahmanyamAllamaraju, Professional Java Server programming J2EE, Edition-volume 1, Wrox-spd.
- <http://www.java.sun.com.j2ee>
- <http://www.javaworld.com>
- <http://www.serverside.com>
- <http://www.jeeolympus.com>
- <http://www.bea.com>
- <http://www.onjava.com>
- <http://www.javaskyline.com>

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**Enterprise Application Development Lab**

**1 Credit Hours**

Relevant to the above topics

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