IT618 Enterprise Computing

Course Placement: M.Sc. (IT), third semester core course.

Course format: 3 Lecture hours and 2 Lab hours.

Courses Objective:

This course aims to teach J2EE technologies for building scalable enterprise applications.

Course Content:

1. Overview of Enterprise Computing Architectures
2. The course teaches how to build multitier distributed applications using J2EE technologies. Overview J2EE Design Patterns.
3. Data Access Technologies: JDBC, Java Persistent API. Learn one of the JPA implementation like.
4. XML Technologies: XML, Schema, XPath
5. J2EE Presentation Tier components: JSP/Servlets, Enterprise Java, Java Server Faces. Learn one of the presentation frameworks like Spring Boot.
6. J2EE Business Tier Components: Enterprise Java Beans
7. Web Services Concepts and Programming using JAX-WS

Reference Book:

1. Developing Enterprise Java Applications with J2EE™ and UML, by Khawar Zaman Ahmed and Cary E. Umrysh, Pearson
3. Designing Enterprise Applications with the J2EE Platform, Mark Johnson, Pearson

Assessment method:

1. Mid Semester Exam: 15%
2. Continuous Assessment (Quiz/tests): 15%
3. Lab Assessment (ongoing): 20%
4. Project: 20%
5. End-Semester Exam: 30%

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Course Outcomes:

Creating Enterprise wide applications poses following challenges –

- Scalability
- Portability
- Reusability of the code

In this course student learn and appreciate related technology, and master creating enterprise scale applications using J2EE technologies.

Tentative Lecture Distribution

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<tr>
<th>Sr. No.</th>
<th>Description</th>
<th>No. of Hours</th>
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<tbody>
<tr>
<td>1.</td>
<td>Overview of OOP and Java</td>
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<td>2.</td>
<td>Data Access using JDBC</td>
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<td>1.</td>
<td>Java Persistent API</td>
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<td>2.</td>
<td>Java XML Technology</td>
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<td>1.</td>
<td>Multi-tier Enterprise Applications and J2EE patterns</td>
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<td>2.</td>
<td>Servlet Framework (J2EE presentation tier objects)</td>
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<td>3.</td>
<td>JSTL and Java Server Faces</td>
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<td>4.</td>
<td>Distributed Objects and Java Enterprise Beans</td>
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<td>5.</td>
<td>Web-services</td>
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