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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **COURSE TITLE** | | | | | **Service-oriented programming lab** | | | | | | | | | | | **CREDITS** | | | **1** | | |
| **COURSE CODE** | | | | | **CSL 605** | | | | **COURSE CATEGORY** | | | | **Core** | | | **L-T-P** | | | **1-0-0** | | |
| **Version** | | | | | **2.0** | | | | **Approval Details** | | | |  | | | **LEARNING LEVEL** | | | **BTL-5** | | |
| **ASSESSMENT SCHEME** | | | | | | | | | | | | | | | | | | | | | |
| **During Semester Assessment (DSA)** | | | | | | | | | | | | | | | | | | | **Semester End Examination** | | |
| **MSE** | | | | | | | | | **DSA Components** | | | | | | | **Attendance** | | | **SEE** | | |
| **20%** | | | | | | | | | **25%** | | | | | | | **5%** | | | **50%** | | |
| **Course Description** | | | | | This lab course focus on implementing concepts like connecting database with java programming, doing CRUD operations on database through GUI, creating client server architecture applications using servlets and JSP. And learning how to improve MVC architecture using Hibernate concepts | | | | | | | | | | | | | | | | |
| **Course Objective** | | | | | This course will enable the students to:   1. To understand Database Access through Java application. 2. To understand XML concepts and file handling   2. To understand client-server architecture and server-side programming.  3. To implement Business logic at the back end.  4. To make students understand the concepts of Object- Relational Mapping. | | | | | | | | | | | | | | | | |
| **Course Outcome** | | | | | Upon completion of this course, the students will be able to   1. Implementation utilizing the basic Object-Oriented programs 2. Implement XML program with their representational structures 3. Interconnect Java application with MySQL database programming using JDBC and odbc connectivity. 4. Designing an application on server-side programming using Servlets and JSP. 5. Designing an application for mapping using Hibernate over J2EE. | | | | | | | | | | | | | | | | |
| **Prerequisites: Knowledge of Java Programming** | | | | | | | | | | | | | | | | | | | | | |
| **CO, PO AND PSO MAPPING** | | | | | | | | | | | | | | | | | | | | | |
| **CO** | **PO -1** | **PO-2** | | | | **PO-3** | **PO-4** | **PO-5** | | **PO-6** | **PO-7** | **PO-8** | **PO-9** | **PO -10** | **PO-11** | | **PO-12** | **PSO-1** | | **PSO-2** | **PSO-3** |
| **CO-1** | **2** | **2** | | | | **2** | **-** | **3** | | **-** | **-** | **-** | **-** | **-** | **1** | | **1** | **-** | | **-** | **-** |
| **CO-2** | **2** | **1** | | | | **2** | **-** | **1** | | **2** | **2** | **2** | **-** |  | **2** | | **2** | **-** | | **-** | **-** |
| **CO-3** | **2** | **3** | | | | **1** | **-** | **1** | | **1** | **1** | **1** | **-** | **-** | **1** | | **1** | **-** | | **-** | **-** |
| **CO-4** | **2** | **1** | | | | **2** | **1** | **3** | | **3** | **1** | **2** | **-** | **-** | **2** | | **3** | **-** | | **-** | **-** |
| **CO-5** | **1** | **2** | | | | **1** | **1** | **1** | |  | **-** | **-** | **-** | **-** | **2** | | **1** | **-** | | **-** | **-** |
| **1: Weakly related, 2: Moderately related and 3: Strongly related** | | | | | | | | | | | | | | | | | | | | | |
| **LIST OF EXPERIMENTS** | | | | | | | | | | | | | | | | | | | | | |
| 1. To implement program with Commandline arguments, Inheritance 2. To implement program with Polymorphism, interface and abstract classes | | | | | | | | | | | | | | | | | | | **CO-1** | | |
|  | | | | | | | | | | | | | | | | | | | | | |
| 1. To implement exception handling using java 2. To implement XML concepts, DTD and XSL concepts 3. Develop a project using Objects, Methods and Classes with its databases. 4. Program with AWT and Databases 5. Program with Swing and Databases | | | | | | | | | | | | | | | | | | | **CO-2** | | |
|  | | | | | | | | | | | | | | | | | | | | | |
| 1. Write a JDBC specification to establish the connection with the Mysql 2. Write a JDBC specification to insert a record into the Employee database. 3. Write a JDBC specification to establish the connection with the SQL server 4. Write a JDBC specification to implement batch-updates. 5. Write a program to implement JDBC transaction | | | | | | | | | | | | | | | | | | | **CO-3** | | |
|  | | | | | | | | | | | | | | | | | | |  | | |
| 1. Construct a Servlet program to print a welcome message and its number of user visiting page 2. Construct a Servlet program to validate the user login 3. Construct a servlet to handle sessions using URL-rewriting 4. Implement a program with session management using servlet 5. Develop a program in cookie and identify cookie information using servlets 6. Write a program to display CRUD application using Servlet with Databases | | | | | | | | | | | | | | | | | | | **CO-4** | | |
|  | | | | | | | | | | | | | | | | | | |  | | |
| 1. Implement a program to display date and time in JSP 2. Write a JSP program to include and forward web pages 3. Write a JSP program to display user details from HTML web page 4. Write a program to implement implicit objects in JSP 5. Write a program to display CRUD application using JSP with Databases 6. Create a program to display the values of User information using Hibernate | | | | | | | | | | | | | | | | | | | **CO-5** | | |
| **REFERENCE** | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | Erik T. Ray, “Learning ***XML***”, 2nd Edition, O'Reilly Media, 2003. ISBN-10: 0596004206, ASIN: B00CVDXYQ6 | | | | | | | | | | | | | | | | | | |
| 2 | | | Dietel and Dietel, ***“Internet & World Wide Web How to Program”*** 3rd Edition with CD, 2004; Pub:Pearson Education, ISBN: 81-297-0408-0 | | | | | | | | | | | | | | | | | | |
| E BOOKS | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | https://enos.itcollege.ee/~jpoial/allalaadimised/reading/Advanced-java.pdf | | | | | | | | | | | | | | | | | |
| MOOC | | | | | | | | | | | | | | | | | | | | | |
| 1. | | | | <https://www.coursera.org/courses?query=advanced%20java> | | | | | | | | | | | | | | | | | |
| 2. | | | | <https://www.coursera.org/courses?query=java> | | | | | | | | | | | | | | | | | |