

DEPARTMENT OF COMPUTER ENGINEERING & INFORMATION TECHNOLOGY

| Subject Name<br>Subject Code | Semester<br>Branch            | Issue Date       | Due Date        |
|------------------------------|-------------------------------|------------------|-----------------|
| Advance Java                 | 6 <sup>th</sup> - C1,C2,C3,D1 | 16-December-2019 | 31-January-2020 |
| 2160707                      | (EC1, EC2, EC3, ED1)          |                  |                 |

### **Experiment# 1 Java Networking**

#### **Practical Name**

- 1 Write an application which will retrieve IP address for given website.
- Write an application which will retrieve the content of the given URL with different web-
- 2 page related information.
- Write a two way network based chat application. It will use TCP/IP protocol and it will do communication in serial manner.
- Write an application which will retrieve file from server machine and save that file on client machine. File name will be provided by client.
  - Write a client program to send any string from its standard input to the server program.
- 5 The server program reads the string, finds number of characters and digits and sends it back to client program. Use connection-oriented communication.
  - Write a client program to send any string from its standard input to the server program.
- 6 The server program reads the string, finds number of characters and digits and sends it back to client program. Use connection-less communication.



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| Subject Code | Branch                        |                 |                  |
| Advance Java | 6 <sup>th</sup> - C1,C2,C3,D1 | 1-February-2020 | 29-February-2020 |
| 2160707      | (EC1, EC2, EC3, ED1)          | •               | •                |

#### **Experiment# 2 JDBC Programming**

- Write down Five Basic steps to establish JDBC connection from Java Application. Also mention sample code for each step.
- Write a JDBC application which will interact with Database and perform the following task.
  - 1) Create Student Table with RollNo, Name, and Address field and insert few records.
  - 2) Using Statement Object display the content of Record.
  - 3) Using Statement Object Insert Two Record.
  - 4) Using Statement Object Update One Record.
  - 5) Using Statement Object Delete One Record.
  - 6) Using Statement Object display the content of Record.
- Write a JDBC application which will interact with Database and perform the following task.
  - 1) Create Student Table with RollNo, Name, and Address field and insert few records.
  - 2) Using PreparedStatement Object display the content of Record.
  - 3) Using PreparedStatement Object Insert Two Record.
  - 4) Using PreparedStatement Object Update One Record.
  - 5) Using PreparedStatement Object Delete One Record.
  - 6) Using PreparedStatement Object display the content of Record.
- 4 Write a JDBC application which will interact with Database and perform the following task.
  - 1) Create a store procedure which will insert one record into employee table.
  - 2) Create a store procedure which will retrieve salary for given employee id.
  - 3) Write a java application which will call the above procedure and display appropriate information on screen.
- 5 Design a JDBC application which will demonstrate Scrollable Result Set functionality.
- 6 Design a JDBC application which will demonstrate Transaction management functionality.



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| Advance Java | 6 <sup>th</sup> - C1,C2,C3,D1 | 30-December-2019 | 24-January-2020 |
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#### **Experiment# 3 Servlet**

- 1 Write down the Program for testing the Servlet and study deployment descriptor.
- Write down the program for testing the include action for Servlet collaboration.
- Write down the program for testing the forward action for Servlet collaboration.
- 4 Create login form and perform state management using Cookies, hidden form field HttpSession and URL Rewriting.
- 5 Create Servlet file which contains following functions:
  - 1. Connect
  - 2. Create Database
  - 3. Create Table
  - 4. Insert Records into respective table
  - 5. Update records of particular table of database
  - 6. Delete Records from table.
  - 7. Delete table and also database.
- Write down the Program in which error is handled by the deployment descriptor file (web.xml).
- 7 Implement Authentication filter using filter API.
- 8 Write down the programs for testing the Servlet context and servlet config interfaces.



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| 2160707      | (EC1, EC2, EC3, ED1)          | •               | •                |

#### **Experiment# 4 JSP**

- 1 Write down the Program which displays the simple JSP file.
- Write down the program in which input the two numbers in an html file and then display the basic mathematic operations in JSP file.
- Write down the program in which display the error by common file for all general pages.
- 4 Develop JSP program to implement implicit objects.
- Write down the Program for testing the include action tag in JSP.
- 6 Write down the Program for testing the forward action tag.
- 7 Write down a program which demonstrates the core tag of JSTL.
- 8 Write down a program which demonstrates the Format tag of ISTL.
- 9 Write down a program which demonstrates the Function tag of JSTL.
- Write down a program which demonstrates the SQL tag of JSTL.
- 11 Write down a program which demonstrates the XML tag of JSTL.
- Write down a program which demonstrates the Tag Handler with appropriate output.
- 13 Create database of student subject-wise data and retrieve all data using JSP and display all data using JSP. Develop the functionality to sort the results in ascending and descending order.



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### **Experiment# 5 Hibernate Framework**

- 1 Study and implement Hibernate.
- 2 Study and Implement Hibernate Annotations.
- 3 Use Hibernate Query Language to insert, update and delete records in database.



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#### **Experiment# 6 Spring Framework**

- 1 Study and Implement MVC using Spring Framework
- 2 Inject Service using Aspect Oriented Programming.
- 3 Using Spring Template manages Database and Transaction.



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### **Experiment#7 JSF**

- 1 Use JSF Standard Components and Facelets Tags.
- 2 Implement JSF Converter Tag and Validation Tags.