

Government Engineering College, Rajkot
Department of Computer Engineering
B.E. 6th Semester [Academic Year: 2022-23]
Advance Java (3160707)

Unit – 1: Java Networking

1. Write java program(s) which accepts names of website from user and prints IP Address of it. The program should be stopped when user enters “exit” as an input.
2. Write a java program (client) which accepts integer from user, send it to the server, server sorts all the numbers and returns the sorted numbers to the clients.

Example:

Client enters and sends following number – 10, 25, 4, 29, and 15, exit.

Output on client program should be → 4, 10, 15, 25,29.

3. Write a menu based java program which performs following.
 1. Reverse of the given string
 2. Converts string into upper case
 3. Converts string into lower case
 4. Counts string length
4. Write a java program(s) to implement simple chat application.
5. Write java program to send hello message to the server using UDP.

Unit – 2: Java Database Connectivity

1. Write a java program to insert a student record in Student Table.
2. Write a java program to insert a student record in Student Table using Prepared Statement.
3. Write a java program to call a stored procedure using Callable Statement Interface.

Unit – 3: Servlet

1. Write a servlet application to print the current date and time.
2. Write a Servlet application to count the total number of visits on your website.
3. Write a Servlet application to authenticate user.
4. Write a Servlet application to perform sign up on website.
Fields : username, password, Name ,Email and Mobile number
5. Write a Servlet application to fetch Mark sheet of a given enrollment number.
6. To develop a web application using servlet event handling and filters.
7. Develop a web application that demonstrates the use of session level events.

Implement the servlet that adds two numbers. Use the two filters in a chain mapped to servlet such that first filter checks the number for valid format and second checks them for a range. If both conditions are fulfilled then only servlet perform the operation and displays the result, otherwise appropriate message from respective filter.

Unit – 4: Java Server Page

1. To develop a web application using JSP and JDBC
Write two HTML pages named as register.html and login.html.

Where, “register.html” has one UI-form, which collects user’s details like full name, age, mobile number, email address, password and confirm password. This register.html page will submit data to servlet named as “RegisterServlet.java”. RegisterServlet will insert user’s details to database and on successful insertion, it will redirect user to login.html with appropriate message otherwise show appropriate error message.

“login.html” asks either mobile number OR email address and password details for login

For valid user, redirect him/her to welcome.jsp page and also start new session.

In welcome.jsp,

1. Check whether user is eligible for Vote or not using session data and display appropriate message.
2. Display logout button, so that once user will click on logout, it will close the user's session and redirect to login.html.

For invalid user, display appropriate message like at login page

1. Invalid mobile Number/email address or password. OR
 2. Mobile Number/email address doesn't exist.
2. Write a JSP page to demonstrate various tag of SQL tag library.

Unit – 5: Java Server Faces

1. Write a program to demonstrate the use of JSF Converter Tag and Validation Tag.
2. Write a program that demonstrates the use of JSF Event Handling and Database Access.

Unit – 6: Hibernate

1. Write a hibernate application to save object of Employee class into database.

Employee class contains following properties

- ❑ EID
- ❑ ENAME
- ❑ ESALARY

Write SQL query for table as well.

2. Write a menu based program to perform following operations using HQL (consider above class and table)

- a. Insert new record
- b. Update Existing Record
- c. Delete Record

Unit – 7: Spring MVC – Java Web Framework

1. Create a MVC Spring Application which demonstrates Dependency Injection using constructor
Consider an Employee(E-id, E_name) class. Write all necessary classes/files.