

CS675 ADVANCED WEB TECHNOLOGIES LAB

Course description and objectives:

On completion of this course, a student will be familiar with client server architecture and able to develop a web application using java technologies To create fully functional website/web application with MVC architecture.

Course Outcomes:

- *Students are able to develop a dynamic webpage by the use of java script and DHTML.*
- *Students will be able to write a well formed / valid XML document.*
- *Students will be able to connect a java program to a DBMS and perform insert, update and delete operations on DBMS table.*
- *Students will be able to write a server side java application called Servlet to catch form data sent from client, process it and store it on database.*
- *Students will be able to write a server side java application called JSP to catch form data sent from client and store it on database.*

List of Experiments:

1. Create a simple webpage using HTML.
2. Use frames to Include Images and Videos.
3. Add a Cascading Style sheet for designing the web page.
4. Design a dynamic web page with validation using JavaScript.
5. Design an HTML having a text box and four buttons viz Factorial, Fibonacci, Prime, and Palindrome. When a button is pressed an appropriate javascript function should be called to display
 - a. Factorial of that number
 - b. Fibonacci series up to that number
 - c. Prime numbers up to that number
 - d. Is it palindrome or not
6. Write java script programs to demonstrate
 - a. Math Object with at least five methods.
 - b. String Object with at least five methods.
 - c. Array Object with at least five methods.
 - d. Date Object with at least five methods.
7. Write JavaScript programs on Event Handling
 - a. Validation of registration form
 - b. Open a Window from the current window
 - c. Change color of background at each click of button or refresh of a page
 - d. Display calendar for the month and year selected from combo box
 - e. On Mouse over event

8. Write a java program to connect to a database server using JDBC and insert 10 students information of user choice in to student table.
9. Write a java program to display all records in the student table.
10. Develop a simple Servlet to display Welcome to Servlet.
11. Develop a Servlet to validate user name and password with the data stored in Servlet configuration file. Display authorized user if she/he is authorized else display unauthorized user.
12. Develop a Servlet to validate user name and password stored in database. Display authorized user if she/he is authorized else display unauthorized user.
13. Write a Servlet program to store student details sent from registration form in to database table.
14. Write JSP Program to store student information sent from registration page into database table.
15. Develop a program to validate username and password that are stored in Database table using JSP.
16. Write appropriate JSP pages to insert, update and delete data in student table in a single application with proper linking of JSP pages and session management.

TEXT BOOKS :

1. Chris Bates, “Web Programming-Building Internet Applications”, 2nd ed., Wiley Publishers, 2006.
2. Diet eland Nieto, “Internet and World Wide Web-How to Program”, 4th ed., PHI/Pearson Education Asia,2007.

REFERENCE BOOK:

1. Hans Bergsten, “Java Server Pages”, 1st ed., O’REILLY Publications,2000.
2. Jennifer Niederst, Robbins, “Learning Web Design”, 3rd ed., SPD O’REILLY Publications, 10.
3. Firuza Aibara, “HTML for Beginners”, 2nd ed., SPD O’REILLY Publications, 2010.
4. Marty Hall, “Core Servlets and Java Server Pages”, 1st ed., Prentice Hall PTR, 2000.
5. The complete Reference Java 2 Fifth Edition by Patrick Naughton and Herbert Schildt. TMH