22DS2L2: WEB TECHNOLOGIES LAB

Course Name	Web Technologies Lab		**L**	**T**	**P**	**C**	**CIA**	**SEE**	**TM**
Course Code	22DS2L2		0	0	6	3	30	70	100
Year of Introduction: 2020	**Year of Offering:** 2022	**Year of Revision**: No Revision			**Percentage of Revision:** Nil				
L-Lecture, T-Tutorial, **P**-Practical, **C**-Credits, **CIA**-Internal Marks, **SEE**-External Marks, **TM**-Total Marks									

Course Description and Purpose:

Web Technologies Lab (22CA2L2) is a course that illustrates concepts of *HTML*, *Java Script*, *DHTML*, *XML*, *PHP*, *JSP*, *Angular JS*, S*vele*t and *Git*.

Course Objectives:

This course will help enable the students to understand, learn, design *Static and Dynamic WebPages, Create XML Style Sheets, write PHP programs for data retrieval, write JSP Applications* for *Client-Server Communication, can create Directives*, *Events*, *Data Binding* and *Database Connectivity* using *Angular JS* and *Bindings & Events using Svelte* and *Version Controlling using Git*.

Specific Objectives include:

- To build functional web applications using *HTML*.
- To create *Dynamic Web Pages* using *Java Script* and *DHTML*.
- To create *Style Sheets with XML* and write *PHP Programs for Data Retrieval*.
- To create *JSP Applications* for *Client-Server Communication*.
- To create *Directives*, *Events*, *Data Binding* and *Database Connectivity* using *Angular JS* and *Bindings & Events using Svelte* and *Version Controlling using Git*.

Course Outcomes:

Upon successful completion of the course, the student will be able to:

CO1: Build functional web applications using *HTML*.
CO2: Create *Dynamic Web Pages* using *Java Script* and *DHTML*.
CO3: Create *Style Sheets with XML* and write *PHP Programs for Data Retrieval*.
CO4: Create *JSP Applications* for *Client-Server Communication*.
CO5: Create *Directives*, *Events*, *Data Binding* and *Database Connectivity* using *Angular JS* and *Bindings & Events using Svelte* and *Version Controlling using Git*.

HTML:

1. Write HTML code to provide intra document linking. (CO1, L1)
2. Write HTML code to provide inter document linking. (CO1, L2)
3. Write a program to implement the three types of lists. (CO1, L1)
4. Create a HTML page using frames. (CO1, L6)
5. Write a program to embed college picture into your web page and write a short note on your college using paragraph tag. (CO1, L1)
6. With a suitable example, depict how we can align text using a table tag as follows. (CO1, L3)
7. Write a program to create the time table as follows: (CO1, L1)
8. Create a Registration form that interacts with the user. Collect *Login Name*, *Password*, *Date of Birth*, *Sex*, *Address*, *Qualification* and display a "Thanks for Registering" message when the user submits the form. (CO1, L6)

JAVA SCRIPT:

9. Write a script to compare two strings using String object. (CO2, L1)

10. Write a script to generate random numbers within 1 to 10 and display the numbers in a table. (CO2, L1)
11. Write a Java Script to update the information into the array, in the "onClick" event of the button "Update". (CO2, L1)
12. Create a web page for a shopping mall that allows the user to tick off his purchases and obtain the bill with the total being added up simultaneously. (CO2, L3)
13. Write a script to find the duplicate elements of an array. (CO2, L1)
14. Write a script which generates a different greeting each time the script is executed. (CO2, L1)
15. Write a javascript to check the number is Armstrong number or not by getting the number from textbox and the result is displayed in a alert dialog box. (CO2, L1)
16. Using functions write a java script code that accepts user name and password from user,Check their correctness and display appropriate alert messages. (CO2, L1)

DHTML:

17. Create an inline style sheet.Illustrate the use of an embedded style sheet. (CO2, L6)
18. Create an external style sheet to illustrate the "Font" elements. (CO2, L6)
19. Write a program to switch on and off light using onClick event. (CO2, L1)
20. Illustrate different types of filters (atleast six) on a sample text. (CO2, L2)
21. Write a program to illustrate tabular data control for data binding. (CO2, L1)

XML:

22. Create a small XML file designed to contain information about student performance on a module. Each student has a name , a roll number, a subject mark and an exam mark. (CO3, L6)
23. Create a internal DTD file. (CO3, L6)
24. Create an external DTD file. (CO3, L6)
25. Create a XSLT stylesheet to display the student data as an HTML table. (CO3, L6)

PHP:

26. Calculate the factorial of a given number using PHP declarations and expressions. (CO3,
27. Write a PHP program that interacts with the user. Collect first name lastname and date of birth and displays that information back to the user. (CO3, L1)

JSP:

28. Write a program to implement JSP directives.(CO4, L1)
29. Write a JSP program for session tracking.(CO4, L1)

ANGULAR JS:

30. Create Registration and Login Forms with Validations using JScript Query. (CO5, L6)
31. Implement the following in Angular JS (CO5, L5)
    (a) Angular JS Data Binding
    (b) Angular JS Directives and Events
    (c) Using Angular JS to fetch Data from MySql

SVELTE: Illustrate the following (CO5, L2)

32. Reactivity using SVELTE.
33. Bindings using SVELTE.
34. Transitions using SVELTE.

Git:

35. Illustrate the following (CO5, L2)
    Version Control Using Git.

Note: The list of experiments is not limited to the above list. If the existing laboratory experiments completed in advance, the additional laboratory programs can added , and to be executed in the laboratory.