

## **PL406 Web Technology Lab**

**Prerequisites:** PL105, PL205, PL305, PL306.

### **Lab Contents:**

This Lab is attached to Web Technology paper. Assignments listed here are supposed to reinforce the topics covered in that paper. The assignment may spread across multiple lab sessions depending on complexity and size. Students are also expected to implement a mini project besides these assignments. The mini project should include design and implementation of a Web application.

#### **List of suggested Lab Assignments**

1. Setting up Web Server: Apache on LINUX and Microsoft Internet Server. Configuring the server to support CGI and other server side scripting Technologies supported by the respective platforms. Web-root directory and User-directory configuration. Understanding security issues.
2. Creating HTML/XHTML Web site: Assignment should be designed so as to use all important HTML tags and Attributes. Only static HTML pages may be created. Aesthetics, contents and efficient bandwidth utilization should be stressed.
3. Formatting HTML pages using CSS: Pages created in assignment 2 may be used to understand how different browsers render HTML differently. Now CCS style properties may be used to format the output in similar manner across all browsers. Use different browser version to understand support provided with different versions.
4. Add JavaScript code to pages created in assignment 3 for validation of form data. Use JavaScript to recognize user browser version and generate browser specific HTML. Use objects exported by the browser for this purpose.
5. Use HTML DOM and JavaScript to dynamically modify web page contents and CSS style properties. Use browser objects, HTML tag objects & events exported by the browser and document.
6. Advance HTML DOM assignment: Use forms to accept any data from the user multiple number of times. The user entered data should be stored locally in a TABLE. Provide facility to modify or delete records stored in the TABLE. Upon pressing a button the data should be sent to Server where it would be stored in a text file.

7. Creating Simple Web application using CGI Protocol: Study how the stateless behavior of HTTP is overcome to implement application logic. Study HTML tags related to forms. Use of cookies, hidden fields to carry forward session data should be demonstrated.
8. Implement a simple Web Application using Server Side Scripting. This could be the same application as done in assignment 7. Use server side scripting technology discussed in the class -( PHP, ASP, JSP, etc)
9. Implement a simple web Application. Study how database access (Addition, Modification and Deletion of records) works in Server Side Scripting. Use the database access API provided by Server Side Technology used.
10. Create an XML DTD file. Create an XML document based on the DTD and validate the XML document against the DTD. Use CSS to display XML document in the browser.
11. Create an XML Schema file. Create an XML document based on the schema and validate the XML document against the XML Schema.
12. Transform an XML document using XSLT for viewing inside a browser. Study the support provided by browser and Server side scripting technology used.
13. Implement a Simple Web service Use the support provided by Server Side scripting technology available on Server side.