Web Application Lab.
Assignment 1

1. Write a servlet to display the message "Hello World".
2. Create a web page with appropriate forms, and servlets, to perform each of the following actions:
    a. Form 1: Accepts a string, and displays a list of students whose name contains the given string, their roll numbers, dept_name etc.
    b. Form 2: Shows a drop down menu containing the names of all departments (generate this from the database), and when a particular department is selected, a list of all students in the department is displayed (as in the previous question).
3. Write a JSP page to display the message "Hello World".
4. Write an application as follows: For the first request, the server generates an HTML file to display the integer 0, with two buttons captioned "prev" and "next". If the user clicks on the *next* button, the server sends the integer next to the one displayed. Similarly, when *prev* button is clicked, the server sends the integer previous to the one displayed. Track the session this using, Hidden fields, URL Rewriting, Cookies, and Session API
5. Design a simple page to open an account. The page should contain one text box for login name, one password box and other information. Use AJAX technology to inform if the login name typed is available or not. Write a target JSP page to insert data supplied in the form into the database.
6. Write a web page that contains two drop-down lists captioned states and districts(initially empty). The first one contains the names of states in India. When a specific state is selected, the second one should be populated by the values obtained from server using AJAX technology. Create suitable tables in the database. When a specific state and district is selected, get the information using AJAX and show it.
7. Design a simple login page. Use AJAX technology to print appropriate error message in case of a login failure.
8. Write a Java class as follows:
    a. The constructor takes the name of an XML file containing object type questions with answer.
    b. The insert() method inserts the questions together with the options and answer into the database table.
    c. Now write a page that allows user to upload an XML file and use previous class to insert questions into the database
9. Write a JSP page to retrieve all the questions together with options and generate a HTML file as follows:
    a. Each question will have query text and a set of radio buttons one for each option.
    b. HTML page contains a submit button.
    c. The visitor answers the questions by selecting appropriate radio buttons and finally presses submit button.

d. Also write a JSP page to collect the answers and to inform how many of them are correct after consulting the database.

10. Use Ajax Technology to change the password of a user. The page usually contains three password boxes and one button. The user will type the old password in the first field and new one in the rest two.

11. Write a XSLT file to transform a XML question file into a HTML file.

12. Create a database table to store the user names and the corresponding passwords. Also write a JSP page to verify the login name and password supplied by the users against the values stored in the database tables.

13. Create a database table to contain price, manufacturer and model of different components (such as HDD, Motherboard, processor, RAM, Monitor, CD/DVD R/W etc.) of a computer system. Create an html form where user will select model and manufacturer of different components and asks for the total price. Write a JSP page to display the total price of the system for the given configuration after obtaining the information from the database.

14. Create a database to store the marks of all students in all semester in all subjects. Write a JSP page to select the semester, roll number and subject. JSP page will in turn find the corresponding marks and display it. You can make your own assumptions depending upon your needs.

15. Design a HTML page to create an account. The page should contain one text box for login name chosen, two password boxes (for double verification), one for email address, one for your name and one for your contact number and others (if you think necessary) . When a visitor provide these data, validate them using JavaScript code. If all data are correct, send it to JSP program (say create.jsp) which inserts the data into database tables. Also write pages to check whether a user can now login or not.

16. Write the page to change the password of a user using JSF technology. The page usually contains three password boxes and one button. The user will type the old password in the first field and new one in the rest two.