











DEADLINE: week 9-15 May

 Lab 1 - HTML	
 Lab 2 - CSS simple	
 Lab 3 - CSS layouts	
 <del>Lab 4 - XML, XSLT, Bootstrap</del>	
 Lab 5 - Javascript	
 Lab 6 - JQuery	
 Lab 7 - Php, Ajax, JSON	
 Lab 8 - Angular, Php	
 Lab 9 - JSP, Java Servlets	
 Lab 10 - ASP.NET	

Documentation

Develop a web application based on JSP (Java Server Pages) or Java Servlets.

Documentation can be found at:  
1) <http://www.cs.ubbcluj.ro/~forest/wp>  
2) <http://www.w3schools.com/ajax>

All web pages should be accessible only if the user logs in using a username and a password (create a session each time a user logs in, and destroy the session when the user logs out). Have in mind the user experience when you implement the problem:

- add different validation logic for input fields
- do not force the user to input an ID for an item if he wants to delete/edit /insert it; this should happen automatically (e.g. the user clicks an item from a list, and a page/modal prepopulated with the data for that particular item is opened, where the user can edit it)
- add confirmation when the user deletes/cancels an item
- do a bare minimum CSS that at least aligns the various input fields

Problems

Solve the following problem using the JSP/Servlet technology. State information (between web requests) is always stored in a database; you may store some state information in cookies/session objects. Write a web application for a forum. Users must identify themselves prior to entering the forum. Each user can start a new topic or can comment (post) on an existing topic. Each user must be able to delete its own posts (comments). The posts of a topic should be displayed in a single web page.

All Problems from this lab - if you want to practice

Solve the following problem using the JSP/Servlet technology. State information (between web requests) is always stored in a database; you may store some state information in cookies/session objects. Write a web application which allows two (human) players to play the game X-0. The game can not start unless two playes are connected. If a third player comes in, it will be rejected from the game with an error message. Users must authenticate themselves prior to entering the game (based on username/password).

Solve the following problem using the JSP/Servlet technology. State information (between web requests) is always stored in a database; you may store some state information in cookies/session objects. Write a web application for user profile management. Before he can use the application, the user must be authenticated or he has the option of creating a new account (i.e. register). The profile of a user contains the fields: name, email address, picture, age, home town. A user can search the profile database using any of the above fields or parts of a field. The profiles resulted from the search are displayed on the browser window: the image, name, email address, age and home town. Image files need not be stored on the database. A user can also change its profile data.

Solve the following problem using the JSP/Servlet technology. State information (between web requests) is always stored in a database; you may store some state information in cookies/session objects. Write a web application which allows a user to play the game snake/worm. Each move of the work is stored in the database. The server keeps track of the time spent by the user in the game. There should be some obstacles on the play grid (some cells of the grid should be avoided by the snake/worm). Users must authenticate themselves prior to entering the game (based on username/password).

Solve the following problem using the JSP/Servlet technology. State information (between web requests) is always stored in a database; you may store some state information in cookies/session objects. Write a web application for choosing a transportation route. The database has a list of cities, each having a list of neighboring cities. The displays a web page with the current station chosen by the user and all the neighboring cities to which this station is connected. The user can then choose a new destination which becomes the new current station and so on... At any time the user can specify that the current station is the final destination and in this case, the application displays the complete route selected by the user so far. The user should also be able to change his/her mind and come back to a previously selected station and change it.

Solve the following problem using the JSP/Servlet technology. State information (between web requests) is always stored in a database; you may store some state information in cookies/session objects. Write a web application for a forum. Users must identify themselves prior to entering the forum. Each user can start a new topic or can comment (post) on an existing topic. Each user must be able to

delete its own posts (comments). The posts of a topic should be displayed in a single web page.

Solve the following problem using the JSP/Servlet technology. State information (between web requests) is always stored in a database; you may store some state information in cookies/session objects. Write a web application which allows users to upload pictures. Each user sees the pictures of all users and he/she can assign votes (natural numbers) for other users' pictures (not for his own pictures). If a picture gets votes from several users, these votes are added. The application then displays the top N pictures and the corresponding authors of these pictures, based on the number of votes; the number N should be chosen by the user. Each user must identify himself prior to using the application.

Solve the following problem using the JSP/Servlet technology. State information (between web requests) is always stored in a database; you may store some state information in cookies/session objects. Write a web application which implements a quiz test. The application displays several questions together with their possible answers on a web page and the use must choose an appropriate answer. The number of questions per page should be configured by the user. Also the number of questions in a test should be configured (chosen) by the user. The questions and possible answers are stored in the database. In the end, the application displays the number of questions correctly answered by the user and the number of questions wrongly answered by the user, together with the all time best result of the user.

Solve the following problem using the JSP/Servlet technology. State information (between web requests) is always stored in a database; you may store some state information in cookies/session objects. Write a web application which allows two (human) players to play the game ships ("vapoare" in romanian): each player has 2 ships deployed in a rectangular grid and they each try to sink the oponent's ships by bombing it (guessing the position of the ship on the battle grid). The game can not start unless two playes are connected. If a third player comes in, it will be rejected from the game with an error message.

Solve the following problem using the JSP/Servlet technology. State information (between web requests) is always stored in a database; you may store some state information in cookies/session objects. Write a web application for an image puzzle. All functionality should be at the server-side. The application should also record and display how many move operations were required for the user to solve the puzzle.

Solve the following problem using the JSP/Servlet technology. State information (between web requests) is always stored in a database; you may store some state information in cookies/session objects. Write a web application for maintaining a collection of URLs for a list of users. Each user can add or delete URLs from his/her collection. The user must authenticate prior to using the application. A guest user (i.e. not authenticated) can still see a list with the top 10 most popular URLs, but an authenticated user can see a list with the top N most popular URLs, where N is configurable by the user.