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DEADLINE: week 11-17 April

Documentation

In this lab you will have to develop a server-side web application in PHP. The web application has to manipulate a Mysql database with 1 to 3 tables and should implement the following base operations on these tables: select, insert, delete, update. Also the web application must use AJAX for getting data asynchronously from the web server and the web application should contain at least 5 web pages (client-side html or server-side php).

For the database, you can use the mysql database on www.scs.ubbcluj.ro. On this myql server you have an account, a password and a database, all identical to your username and password on the SCS network.

Please make sure that you avoid sql-injection attacks when working with the database.

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

Documentation can be found at:
1) http://www.cs.ubbcluj.ro/~forest/wp
2) http://www.php.net/manual/en
3) http://www.w3schools.com/php
4) http://www.w3schools.com/ajax

Problems

Write a web application for managing log reports. The log reports are registered (added) by users to a database repository. A log report has several attributes: type, severity (i.e. debug, warning, notice, error, critical etc.), a date, a user who created the log and the log itself (message text). A user must have the posibility to view log reports added by him/her, all log reports, logs of a specific type or severity (use AJAX for this). Also a user can delete his/her own log report. Log browsing should be paged - logs are displayed on pages with maximum 4 logs on a page (you should be able to go to the previous and the next page).

All Problems from this lab - if you want to practice

Write a web application for a news service. Some users add or update news and others just view news. News are saved on a database and they have the following characteristics: text of the news, title, producer, date, category (politics, society, health etc.). The user who adds or updates news must log in using a username and password before doing this. The other type of users can see all the news from a range of dates and all news from a specific category (use AJAX for these filters). Also, on the news browsing page, the filter used for the previous browsing action (i.e. date range, category), should be displayed (do this in javascript).

Write a web application for managing log reports. The log reports are registered (added) by users to a database repository. A log report has several attributes: type, severity (i.e. debug, warning, notice, error, critical etc.), a date, a user who created the log and the log itself (message text). A user must have the posibility to view log reports added by him/her, all log reports, logs of a specific type or severity (use AJAX for this). Also a user can delete his/her own log report. Log browsing should be paged - logs are displayed on pages with maximum 4 logs on a page (you should be able to go to the previous and the next page).

Write a web application for assigning grades to students for various courses. The application will have two types of users: professors and students. A student can only display his own grades. Students are organized in groups. A professor can add or modify a grade for the students in a group at a specific course. In order to retrieve the list of students from a group, the web application will use AJAX. Prior to using the application the users (professors and students) must log in using a username and a password. Students in a group should be displayed on pages with maximum 4 students on a page (you should be able to go to the previous and the next page).

Write a web application for managing a personal collection of URLs (web links). Together with the URL, a description/comment and a category must be added to the database. The user can add, remove and modify URLs and the associated descriptions. Also the user can browse using AJAX the list of URLs grouped by their categories. Prior to using the application, a user must log in with a username and password which are stored in the database). URL browsing should be paged -

URLs are displayed on pages with maximum 4 URLs on a page (you should be able to go to the previous and the next page).

Write a web application for managing vacation destinations. A destination has in the database besides the name of the location (i.e. city etc.), the country name, description, tourist targets in that location an an estimated cost per day. The user can add, delete or modify the destinations and he can also browse the vacation destinations grouped by countries (use AJAX for this). Vacation destination browsing should be paged - destinations are displayed on pages with maximum 4 vacation destinations on a page (you should be able to go to the previous and the next page).

Write a web application which implements a guest book. A guest book record is identified by: author (email), title, comment, date. A client of the application should be able to add new entries in the guest book, but only the administrator of the site can delete or modify them. Also the administrator should be able to browse the list of guest book entries based on (grouped by) their author and title using AJAX. Guest book browsing should be paged - entries are displayed on pages with maximum 4 entries on a page (you should be able to go to the previous and the next page).

Write a web application for managing a second-hand car business. The application should maintain various information about a car in the database (i.e. model, engine power, fuel, price, color, age, history etc.). The application should implement: car browsing (use AJAX for retrieving cars from a specific category), adding, removing and updating a car. Also, on the browsing page, the filter used for the previous browsing action (i.e. category), should be displayed (do this in javascript).

Write a web application for managing food recipes. The application should maintain various information about a recipe in the database (i.e. author, name, type, the actual recipe etc.). The application should implement: recipes browsing (use AJAX for retrieving recipes of a specific type), adding, removing and updating a recipe. Also, on the browsing page, the filter used for the previous browsing action (i.e. recipe type), should be displayed (do this in javascript).

Write a web application for managing documents. The application should maintain various information about a document in the database (i.e. author, title, number of pages, type, format etc.). The application should implement: document browsing (use AJAX for retrieving documents of a specific type or format), adding, removing and updating a document. Also, on the browsing page, the filter used for the previous browsing action (i.e. type or format), should be displayed (do this in javascript).

Write a web application for managing users in an enterprise system. The application should maintain various information about users in the database (i.e. name, username, password, age, role, profile, email, webpage etc.). The application should implement: user browsing (use AJAX for retrieving users from a specific role), user lookup based on his name, adding, removing and updating a user. Also, on the browsing page, the filter used for the previous browsing action (i.e. role), should be displayed (do this in javascript).

Write a web application for managing books in a personal library. The application should maintain various information about a book in the database (i.e. author, title, pages, genre etc.). The application should implement: book browsing (use AJAX for retrieving books from a specific category/genre), adding, removing, updating a book, lending books. Also, on the browsing page, the filter used for the previous browsing action (i.e. category/genre), should be displayed (do this in javascript).

Write a web application for managing a multimedia file collection. The application should maintain various information about a multimedia file in the database (i.e. title, format type, genre, path in the file system etc.). The application should implement: multimedia file browsing (use AJAX for retrieving titles from a specific category/genre), adding, removing, updating a multimedia file from the collection. The files themselves does not have to be stored in the database. Also, on the browsing page, the filter used for the previous browsing action (i.e. category/genre), should be displayed (do this in javascript).

Write a web application for an e-commerce store. The application should maintain information about the products it sells in the database. The user should browse products by categories (use AJAX for this), add and remove products to a shopping cart. Product browsing should be paged - products are displayed on pages with maximum 4 products on a page (you should be able to go to the previous and the next page).

Write a web application for room booking in a hotel chain. The application should save room information in the database. The clients should have the posibility of browsing the rooms by category, type, price, hotel etc. (use AJAX for this), booking one or more rooms for a specific period of time, but also they should have the posibility of cancelling their reservation. Rooms browsing should be paged - rooms are displayed on pages with maximum 4 rooms on a page (you should be able to go to the previous and the next page).