WEBD 236 Lab 3
If you use an external source (i.e. a web-page, the required textbook, or an additional book) to help you answer the questions, be sure to cite that source. You should probably always be citing a source.

Problem
It’s time to expand the forum to add the capability of searching by tag and to add/delete answers. In the process, you should also add validation for fields such as strong passwords and valid e-mail addresses. You should add the following features:

• Clickable tag names. Since tags are stored in a single field attached to the comment, you will need to use a regular expression to break the string into an array of strings that are the tags. You will then need to iterate through those strings, forming an anchor tag for each that points to a new tag controller (i.e. tag/detail/sometagname). Clicking on a tag name should show all questions that contain that tag.

• Answers on questions. Answers will involve another table in the database containing the date stamp of the answer, the user id of the answering user (only registered users can answer), the question id to which the answer is attached, and the text of the answer itself. When viewing a question, you should also see all the answers. Answers can’t be edited once posted, but they can be deleted by the person who created the answer.

• Data validation using the Validator class. This is to ensure that all required fields have values, and that structured fields (such as email addresses and passwords) conform to expected norms.

• Object-oriented models. All model classes should be objects.

• You will now need to be much more careful when deleting records because you will need to maintain referential integrity:
  o When a user is deleted, all the questions of that user as well as all their answers should also be deleted.
  o When a question is deleted, all its associated answers should also be deleted.
Notice above that each tag is now its own hyper-link. When the user clicks on the hyperlink, the application finds all the questions with that tag, and displays them, as shown below:
When viewing a question, you can now see all the answers that are associated with the question as well as add your own answer. There is no separate form for adding answers; it is embedded into the page that views questions:
Notice in the above as well that Scott Sharkey is logged in, and Scott can delete his own answer, but not the answer by Joel Anderson. But, if no user is logged in, then the answer form should not be displayed (see below).
Finally, validation should be put in place that handles email addresses, required fields, and passwords. The figure below shows a weak password and an existing email address.
Basic Requirements:

- Make all tags be links.
- Tag links should display a page with all questions containing that tag.
- Add an answers form to the view question screen.
- Only registered users can answer (don’t display this form if the user isn’t logged in).
- A user can delete his or her own answer, but nobody else’s.
- All fields should be validated using the Validator class (required, email, password, etc.).
- Model classes should now be object-oriented.
- Maintain referential integrity (deleting questions deletes all answers for that question, deleting a user deletes all questions by that user and all answers by that user).
- All lab 2 requirements should still also be met.

Helpful Hints

- See the validation class posted on the supplemental web site.
- You should use SQLite (not MySQL) for this project.
- Make sure that your project works on any server on any directory. In other words, you should never hard-code a URL with the name or IP address of your machine. We won’t be using your
machine when we test it. Also, you should not hard-code a directory name in your application. It should run as http://localhost/forum/index or as http://localhost/myforum/index or any other directory URL.

- Use the MVC framework developed in class. This will help, since the project is getting bigger.

**Submission instructions**

Create a ZIP file of your entire project contents as it is found under your C:\XAMPP\htdocs\webd236\forum-<yourname>\ directory. This ZIP file should contain your database, your PHP scripts, style files, etc. Follow proper coding conventions (indentation, commenting, etc.) that you would have learned in previous courses.

Submit the ZIP file to the dropbox for this assignment in the course.