

Submission 04

Implementing Registration to a MySQL Database, Login, Logout and Welcome Message Personalization

Submission Description

This submission involves some major enhancements to your website. You will implement the registration, login, and logout features of your site, which means that the links corresponding to those menu options under the e-store item in the menu bar will become active (both in the dropdown, and, of course, on the **Site Map** page), as will the big **Log in** button under the Welcome message on the home page. To summarize, you will first do the following:

- Create a MySQL table for customers in your MySQL database, with the following fields: customer id, salutation, first name, middle initial, last name, gender, e-mail address, phone number, street address, city, region, postal code, date and time of registration, user login name, and login password [Note: The password must be stored in encrypted form, using a scheme like md5 or similar.] The id field should increment automatically when a new customer is added to the table. This table may, of course, be created with a front-end tool like **phpMyAdmin**, but I recommend that instead you do it with a MySQL command-line script. As we proceed you will find additional MySQL command-line scripts useful, so I recommend that you create a `mysql` subdirectory in your `scripts` directory to hold such scripts.

Note on the naming of this database table, as well as the naming of the other tables you will need later:

Because you only have the one database, and you may well have lots of different tables in it, we require that any table in your database that is associated with your business have a name that begins with the three characters `my_`. So for example, this first table could be named `my_Customer` OR `my_Customers` (for example). As you might expect, there are debates/flame wars on the Internet about database name capitalization and pluralization. You can choose your own preferred style in this regard, but be consistent.

- Create pages and associated scripts for each of the following:
 - A registration form that accepts all the data necessary for a a customer to register (that is, to populate the above-mentioned customer table). The registration form must also have a display similar to that illustrated in version 4 of the Amazing Stuff website. Also the form must validate the same fields, include the same popups and placeholders, and must also "retain" the entered values. Finally, your registration process must exhibit the same behavior as the sample website when the user tries to register with an email address that is already in the database, and when the user tries to register with a username that already exists in the database.
 - A login form that is analogous to the login form shown in version 4 of the Amazing Stuff website. The behavior must be analogous as well, including the behavior when the user clicks on the **Logout** menu item when actually logged in and when not logged in. Finally, your login process must exhibit the same behavior as the sample website when the user tries to log in with a username that is not in the database, and also when the user tries to log in with a valid username but an invalid password.
 - A logout script that behaves in an analogous manner illustrated by the logout procedure shown in version 4 of the Amazing Stuff website. Note that the behavior is different, depending on whether the user clicks on the **Logout** menu option when logged in or when not logged in.

- Second, you will "personalize" your Welcome message, in the same manner as illustrated in version 4 of the Amazing Stuff website, using data from the customer table in your MySQL database, which will be available for display once a user has completed his or her registration.

Required File(s)

In addition to all of the directories and files from version 3 of your website, this fourth version must also have the following additions/changes:

1. New files in your `pages` subdirectory and your `scripts` subdirectory, for handling database connection, registration, login, and logout.
2. Other modifications may be necessary as well, but at the very least your `banner.php` file will need to be modified to handle the personalization of your Welcome message.

File Placement for Submission

Submit the required directories and files simply by copying them into the `submission04` subdirectory of the `submissions` subdirectory in the `public_html` directory of your personal Linux account `u##`, where the `##` are the last two digits in your Linux account username for this course.

Be sure to develop outside the submission directory and **copy** your directories and files to the submission directory when you are ready to submit, so that there is nothing in the submission directory but the directories and files required for the submission. And be sure to make any necessary changes to make your website fully functional in the new location.

Additional Notes, Requirements, Specifications and/or Hints (if any)

1. Important Note on the Registration Process:

The user attempting to register must supply an e-mail address that is currently not in the customer database. The login name requested by the user does not have to be unique in the database, but if that is not the case the registration script must find a unique login name for the customer by adding increasing positive integers to the requested login name until a unique one is found.

2. The tasks required for this version of your website afford another excellent opportunity for incremental development. In fact now might be a good time to remind you of one of the quotations (from Martin Fowler) that you may have seen on one or more of the Amazing Stuff websites: "You should use iterative development only on projects that you want to succeed."

3. So ... I recommend that you proceed as follows: First set up your customer table, and play with it a bit at the `mysql` command line. Then complete your registration form and script(s) in their entirety. Next complete your login form and script, then your logout script, and finally your Welcome message personalization and any modifications it requires.

Best Practice

Develop your files and directories in the directory `submissions/04`, and when you're finished, copy the relevant contents of this directory to your `submissions/submission04` directory and make sure the copied version of the website continues to function properly.

Submission 04 Checklist

Files and directories

1. Is there a new `readme.txt` file in the home directory?
2. Are there new page files in the `pages` subdirectory for handling registration, logging in and logging out?
3. Are there new PHP script files in the `scripts` subdirectory for handling registration, logging in and logging out?

Home page appearance

1. There are no new home page display requirements, but you may wish to revise some aspects of your home page based on feedback.

Home page functionality: Register, Login and Logout links now active

1. Do the **Register**, **Login** and **Logout** links under **e-store** behave properly?

Other pages: Registration, logging in with Welcome personalization and logging out now functional

1. Does clicking on the **Register** link under **e-store** display the registration form?
2. Does the registration form contain all the required boxes and do the boxes have the required popups and placeholders as shown in the AS4 registration form, as well as the red asterisks indicating which parts are required?
3. Does attempting to submit the form without filling in any data highlight (in red) all widgets except the phone number box (unfortunately this very helpful behavior may only happen in Firefox)?
4. As the form is filled out, does each widget remain (or become) highlighted in red if the data entered into that widget is invalid according the required specs for that data (again, this may only happen in Firefox; in Chrome it may be that you can fill in the entire form with bad input and you get no warning till you attempt to submit)?
5. If all data entered is complete and valid, **but** the user has failed to enter two passwords that match, does the user get the appropriate message back from the server when the form is submitted? And when the user goes back to the form to make the correction, is all the form data still present so that making the necessary correction and resubmitting requires minimal effort?
6. When the registration succeeds, does the user get the required confirmation page, as seen in AS4?
7. If the user clicks on the option to log in that is offered on the registration confirmation page, does the login form appear? [This login form must also appear when the dropdown **Log in** option under the main menu bar **e-store** item is clicked, and when the **Log in** button on the home page is clicked.]
8. When completing the login form, if the user enters either a bad user name or password, does the user get an appropriate warning page? [Question to think about: Is this behavior OK, or could it be improved?]
9. When the user succeeds in logging in, is the Welcome message "personalized" appropriately? And does the **Log in** button change to a **Log out** button?
10. When logged in, if the user clicks on the **Log out** button, is the user logged out with the appropriate message page, is the Welcome message "de-personalized" appropriately, and does the button go back to **Log in**?
11. If the user logs back in by clicking on the **Login** option under **e-store**, does the login procedure proceed as before, and if the user then clicks on the Logout option under e-store, does the logout procedure proceed as before?
12. If the user clicks on the **Logout** option under **e-store** without being logged in, does the user get the appropriate message page?

Behind the scenes

1. Does the MySQL database contain an appropriately named table (with the **my_** prefix) holding the customer information, with the appropriate fields having suitable data types, and in particular has the password been encoded (with md5 or a similar scheme)?
2. Are all files well formatted?

Final questions

1. Are "look and feel", responsiveness, and validation maintained across the website?
2. In addition to the above new features, are there any clearly outstanding issues from the previous version of the website that have not yet been resolved?
3. Did the `readme.txt` file adequately describe the state of the website?