

CIS 525 Fall 2023 Project 3:

Demonstration Registration with PHP and MySQL

Due: **11/7/2023**

Total Points: **180**

Assignment

There are approximately 36 students in the web technology class. The students will demonstrate their projects at six different one-hour long time slots. Up to 6 students can give their demonstrations in a given time slot. The professor decides to have a registration webpage to allow students to sign up for one of the time slots. A student visiting the page should be able to submit his/her *UMID, first name, last name, project title, email address, phone number, and book a seat in one of the available time slots*. A student is uniquely identified by his/her UMID.

The submitted data should be stored in a MySQL or MariaDB database which is maintained on a server. The webpage and the server should interact with each other at every step of the registration process. The page should show how many free seats are available in each time slot, announcing and blocking all fully booked time slots. After a student makes a data submission, it should check whether the student has been already registered. If not, the data is stored on the server and the student is notified about her registration. Otherwise, if already registered, the student should be prompted to ensure that she wants to change her registration to the new section (and removed from the current one she is registered for). For example, the time slots may look like the following list:

1. 12/5/23, 6:00 PM – 7:00 PM, 6 seats remaining
2. 12/5/23, 7:00 PM – 8:00 PM, 5 seats remaining
3. 12/5/23, 8:00 PM – 9:00 PM, 3 seats remaining
4. 12/6/23, 6:00 PM – 7:00 PM, 2 seats remaining
5. 12/6/23, 7:00 PM – 8:00 PM, 4 seats remaining
6. 12/6/23, 8:00 PM – 9:00 PM, 0 seats remaining

In addition, you need to write a **separate** webpage that will display the list of students (including their UMIDs, names, project titles, email addresses, phone numbers, and time slots) who are registered, after querying the database.

Requirements

1. For your assignment, you should use HTML, CSS, JavaScript, PHP, and MySQL.
2. The database must fully implement the registration process, maintaining the submitted information. The server and page behavior must meet the requirements listed above.
3. The specific look and feel of the pages as well as the database implementation is left intentionally vague, allowing considerable design freedom on your part. However, the page should have a nice look and the code should satisfy common standards.
4. User inputs must be validated at the server side in PHP. The validation at the client side in JavaScript is optional. The first and last name fields cannot be empty and consist of alpha letters only. UMID must be exactly 8 digits. Email must be a valid email address. Phone number must be in the form 999-999-9999. *Hints, input validation can be done with PHP filter or regular expressions.*

If there are any errors, your program must **highlight the error input** and keep the correct inputs. You should not ask a user to “go back” to the previous page or input everything again.

Deploy Your Project using Amazon Web Services

Notes on Launching a MySQL Database Instances at AWS

The following link gives the detailed instruction:

<http://docs.amazonwebservices.com/AmazonRDS/latest/GettingStartedGuide/LaunchDBInstance.html>

Notes:

- Choose a database creation method: “Easy create”
- Configuration: “MySQL” or “MariaDB”
- DB Instance size: “free tier”
- Specify a unique name for the DB instance identifier (e.g. firstInitial-LastName-CIS525)
- Check “yes” for public accessibility.
- Take a note of your master password.
- Take a note of the “endpoint of the DB instance,” which is the host name of your MySQL server.
- Database and table names are case sensitive.
- To connect to your DB instance, you will need to install a MySQL client in your computer. MySQL workbench is one of the best tools. You may download it from the following link: <http://www.mysql.com/downloads/workbench/>

Hints:

I suggest that you install XAMPP on your personal computer. Then, you can develop and test your program locally. When all done, you can then deploy it to the AWS.

What to turn in:

1. Upload all your files as **a single ZIP file** to the Canvas under the “P3” folder. Be sure to include all relevant HTML, CSS, JavaScript, and PHP files, and **include an SQL dump of your database** including all the relevant table(s) that you are using for this assignment.
2. **Write down the URL of your web site in the comment section if available**, when submitting.