CSIS 3280 Final Project

```
Each group member must contribute working code to your project.  Group members
found not contributing code may be given a ZERO mark.  Projects that do not run
after following simple installation instructions may also receive a ZERO.
```

Project Requirements

The Group Project is a project that should cumulatively cover all the topics in the course, it is to model an application with a small real-world use case (think small web app, fitness tracker, Instagram clone, Dating App, Online store). The project will be a Web based PHP app and will connect to a database using PDO and integrate with a web service. You must have at least **count(3)** people in your project. **You may not work on your own.**

Assignment

Create a PHP application that leverages PDO via a local mysql database integrates with a web service (JSON or XML over HTTP).

Requirements

Data and Program Requirements:

- Four Entities with cardinal relationships (1:1, 1:N, M:N) one of which is an associative entity.
- Entities must be stored in a Database and accessed using PDO.
- The application must support Create, Read, Update and Delete Items (Delete can leave a tombstone) using PDO. This must be implemented for each entity.
- Users must be able to login, their credentials must be encrypted
- The application must have multiple HTML forms and pages.
- The application must integrate with a web service.
- The application must be able to search and lookup data.
- Statistics must be shown for at least one entity.
- All input must be validated the appropriate events handled, proper English must be used.
- The application must support users, sessions logging in and logging out.
- It must be easy to use and visually pleasing, professionally designed with effective use of layouts, text, page and content elements and user input elements.
- You must use two technologies that were not covered in the class and are not trivial
- Must extend beyond what we covered in class.
- Additional features make your project stand out and as such will be rewarded.

Project Artifacts and Requirements

1. **Project Description** (3 Pages) - Describe your project

- Ensure you specify your group members and the entities they are responsible for.
- Include how you will involve a web service.
- Include a list of features you will implement and why these add value to your project.
- Include a list of the additional technologies that were implemented as an extension beyond what was covered in class.

2. **Class Diagram** (<= 1 Page>

- Includes three entities
- Specifies PK and FK attributes
- Specifies cardinality.
- Specifies Associative Entity
- You can use a tool like Software Ideas Modeller

1. **Meeting Minutes** for your meetings, you must complete meeting minutes every time the group meets (both in and out of class), be sure to include who was present, you each team member must answer the following questions in detail:

- Attendance (who is present for your meeting)
- What was done since the last time the group met (per person)?
- What is working well?
- What is not working well?
- What will be done before the next time the team meets?

4. **User Manual** (1-2 pages)

- Must be as concise as possible, must include visuals wherever applicable.
- Must cover all the actions a user can perform (CRUD and Search etc...)
- If PowerPoint is used you can have up to 4 slides, more will receive a zero. Be concise!

5. **Project Schedule** - There are a few weeks left in the course, make a good account for all of them, your project is due **half an hour before the start of the last class**

6. IMPORTANT - Contributions of each Member (half a page)

- A table outlining the contributions to the project by each member.
- Must specify code and component Contributions for each member.
- Must specify Team contributions and role for each member.
- You must collectively mark each group member assigning them a number of points which totally to 100 for the entire group. You may not grant each group member the same number of points, you must use multiples of 10 only.

References

You must provide references for any other materials that were used or consulted for your project. This includes stack overflow, w3schools, LinkedIn Learning etc...

Submission

Your Team submission should include a folder with the naming convention `pro-teamname/`. You should have one controller file called `pro-teamname.php`. You must provide the appropriate SQL for your project in the data/ directory with the filenames .sql. Your program structure should be similar to the kinds of programs we have been doing in class using MVC where applicable.

You must also provide a README.md file in the root directory of your submission that give simple instructions on how to load the database and project (make sure you test this thoroughly) . You may assume that I have the current lab-based setup on my computer and I can cut and paste commands. Note: I will not be doing any extra setup in order to run your project (ie: adding Routes to Apache, fiddling with Web Service API keys etc...).`

Grading

The assignment will be graded on a scale of 30 points.

Criteria	**Grading**
Project submitted and named properly with all assets to Blackboard by Team Leader, file is named according to the naming convention.	2 points
Project Proposal, Class Diagram, Meeting Minutes, installation manual (README.md), group contributions and additional two technologies for your project all completed with relevant details.	5 points
User Manual – Concise, to the point, graphical, labeled properly, Class Diagram accurate including all properties and cardinality.	3 points
Statistics are coded using SQL queries and displayed, PDO used and errors are captured and logged. The user must be given positive confirmation of a CRUD operation.	3 points
HTML Forms coded properly (framework can be used) layout is efficient and easy to use and controls are intuitive and easy to use. Input is validated	5 points
Good program structure is used, all functions are commented, and comments are used where applicable. Naming conventions are followed.	7 points
Database Entities exist, referential integrity is enforced, associate entity is present. Web Service integrated with error handling	5 points
Additional 2 technologies implemented that **were not covered in class**.	5 points

Helpful Hints

- Be sure to have a consensus among the team with regards to your data types and formatting.
- When you test take the perspective of a user using your application.
- Be sure that your tests cover all the CRUD operations. Remember I will test your application and I will try to break it.
- Run your project on a douglas college lab computer or (or compliant setup) where it has not been run on prior to submission.
- Do not wait till the last minute to put together your submission, if your project artifacts are missing or your project does not run it will receive a ZERO.

Your group project must be able to run on a lab computer (or complaint setup), your project should only require the loading of your database and the aliasing of your web application folder or via the built in PHP server or composer commands, if using a framework then be sure to include the composer commands to run the project or the larval commands to run the project.
