## First: Project Description:

For the final project you will create a full stack, database-driven web application that uses the all languages taught in this class (HTML, CSS, JavaScript, PHP, SQL). Your web application may be on any topic, as long as you satisfy the requirements below. The final project is due on 12 Dec 2022 at 11:59pm.

## Second: Requirements

**General Requirements**

* You must build this web application using the technologies taught in this class (HTML, CSS, JS, SQL, PHP).
* This must be a fully functioning. This means:
* No JS/PHP/SQL errors should be displayed.
* All pages are working properly (no 500 or 404 errors).

**HTML/CSS Requirements**

* At least four (4) distinct pages
* It is up to you on how to design each of the pages. However, each page must have substantial and real content that support the topic of your web application.
* “Coming Soon” pages do NOT count as a real page.
* Confirmation pages do NOT count as a page (e.g. add\_confirmation.php that displays a success message that users have added a record into the database successfully).
* All your designs must be responsiveness and display correctly on large, medium and small screens properly.

**Original layout**

* Come up with your own layout (UI) and workflow.
* You may use Bootstrap or other CSS frameworks but you may NOT use an HTML template or copy the exact design of an existing website.
* Navigation menu and logo must be included.
* A logo that exists in all pages of the application. The logo can be text or an image. You can pick any logo you want.

**External stylesheet**

* At least one (1) external stylesheet that includes CSS that is shared among multiple pages.
* All other CSS can be written in internal stylesheets or its own external stylesheet.

**Consistent design**

* All pages must have a similar structure (header, navigation, footer, etc.).
* Consistent look and feel (such as colors, fonts, etc) used throughout the pages.
* All links take users somewhere, even if it’s a Coming Soon page (i.e. there should be no dead links)

**Responsive design**

* All pages must look polished on mobile, tablet and desktop devices. No squished or unreadable text, elements going off screen, etc. Graders will check each page in each of these device sizes:
  + Mobile
  + Tablet
  + Desktop

**JavaScript Requirements**

* Any user input must be validated first by JavaScript, even if server side will also do validation.
* Interactivity: Must implement at least one event handler (click, hover, keypress, etc) for a meaningful interaction in at least one page that is NOT related to input validation.

**Database Requirements**

* Design (and normalize) your own database.
* At least three (3) tables and two (2) table relationships.
* Populate the database with sufficient data.
* There must be at least 10 rows in at least one table.

**PHP Requirements**

* Use MySQLi to connect and interact with the database.
* Web application needs to Create, Retrieve, Update, and Delete records from the database.
* Allow any user to CRUD and only allow privileged users to perform certain actions (e.g. only admin users can delete records).
* Handle any user input errors, even if JavaScript already does so.

## Third: Submission milestones:

|  |  |  |
| --- | --- | --- |
| No. | Task | Due date |
| 1 | Group formation and project proposal – brief description needed only | 17th Nov 2022 |
| 2 | First prototype | 29th Nov 2022 |
| 3 | Final source files | 12th Dec 2022 |
| 4 | Final report and presentation | 14th Dec 2022 |

**Deliverable:**

* Source code files
* Project Report (including screenshots of your project and a description of the project) – Fill according to the project summary file.
* Project Presentation

**Deadline:** 14 Dec 2022

## Fourth: Project grading rubric:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Category** | Points | | | | |
| **5** | **10** | **15** | **20** | **Total** |
| **Layout/Design** | The pages are unattractive. Text is difficult to read. The backgrounds are distracting. | The pages appear “busy” or “boring”. Text may be difficult to read. The backgrounds are somewhat distracting. | The pages are eye-catching and attractive. Text is easy to read. The backgrounds are subtle and appropriate. | The pages are well organized with tables. Text spacing and alignment make reading easy. The backgrounds enhance the page. |  |
| **Graphics** | There are no photos, icons or clip art or they are inappropriate or of low quality. | Photos are blurry or fuzzy; icons and clip art do not “fit” with the topic. Too many pictures make the download time slow. | Photos, icons, and clip art are appropriate, of high quality, and download fairly quickly. | Photos, icons, and clip art are used creatively and may follow a theme. |  |
| **Technical Content** | Code is poorly written, variable names are bad etc.. | Code is well written. Most but not all best practices are followed. | Best practices for code writing and database design are followed. | Best practices are followed and in addition, code is clean, precise and well thought out. Code can be shared with others easily for reuse. |  |
| **Navigation/Links** | The user may become lost or links may be missing or not working. | The user may become confused when navigating between pages. Some links may not work. | Links are consistent and easy to find so that the user can easily navigate back and forth through pages. | Links are created with images and icons to enhance the text links. |  |
| **Creativity** | Minimal effort. Poor layout/design. Did not incorporate required attributes, graphics, did not resize pictures, inappropriate graphics. | Was clever at times; incorporated most of the attributes; used a limited variety of appropriate graphics. | Was well done and interesting to the audience; added a few original touches to enhance the project; used a good variety of appropriate graphics. | Was extremely clever and presented with originality. Excellent layout/design work incorporating all required attributes, great variety of appropriate graphics that enhanced the pages. |  |
| **Final Grade** | | | | |  |