Software Engineering Department
Web Application development (SE324)
SE324 Final Project Description 2023-2024

Team Formation: 15/10/2023
Submission Date: 06/12/2023
Presentation Date: 07/12/2023

Objectives

The main objective of this project is to use all techniques and skills learnt throughout the SE324 course in developing a robust dynamic website or web application with database included for managing a real world business case. In this project, creating a dynamic website or web application in any of the following areas is recommended. The proposed project ideas include:

1- Restaurant or cafe

2- Cinema (Movies / Cartoons)

3- Online Shopping

4- Metro Station Web Application

5- Healthcare (Hospital) / Drugs Company / Pharmacy

6- University Registration System

7- Library / Bookstore

8- Cars Rental Company

9- Hotel or Resort

Learning Outcomes	Mapped SOs
CLO1. Use the major technologies for formatting and presenting web content in web pages and web forms (Hypertext, HTML, Responsive design, XML, CSS, master pages).	
CLO2. Build dynamic web pages using client-side JavaScript and server-side programming.	
CLO3. Programmatically utilize the basic tools of web development to develop useful dynamic web applications: retrieving data from forms, switching to a different page, passing data between pages, retrieving data from databases and presenting it, saving and manipulating the state of the application, programmatically manipulating the content and style of web pages to present data, performing web forms validation, performing users authentication and authorization.	SO1-SO3-SO5

Project Outcomes

After completing this project, students are expected to master:
- Documenting and analyzing a given system
- Fully functional dynamic website or web application with DB involved (client & server side implementation)

Project Evaluation. The project is evaluated as follows:

PHASE	WEIGHT
1. Final Report	**2 %**
1.1. Business Logic	
1.2. Web Application Manual	
1.3. Dynamic behavior & DB-Functionality	
1.4. Limitations & Future Work	
1.5. Lessons learnt & Members' Review	
2. Code *(as explained later)*	**6%**
3. Project Presentation & Demo	**2 %**
Total of Course	**10%**

1. Team Formation

1. Form Teams of 4-5 members max. and nominate one member to be the team leader.
2. Members will be evaluated individually and as a group based on their contribution to the project.

<u>Deliverable:</u> Leader should list members' names and roles, code parts handled (*required*)

2. Business Logic

<u>Deliverables:</u> A concise description of the system and the need to develop a web application for it

3. IMPLEMENTATION

<u>Deliverable:</u> Fully functional web application with all possible test scenarios (screenshots and demo)

3.1. Client Side
- HTML & HTML5 & XSLT to build key structure
- External CSS & Responsive Design (e.g. viewport) for style needed
- Bootstrap
- External JS or ReactJS for client-side scripting, error handling and animations (if any)

3.2. Server Side
- PHP for server-side scripting
- Both MySQL and XML to build a database connection for data save and retrieval

4. Project Presentation *Duration: (10 minutes max. with questions)*

<u>Deliverable:</u> All team members should:
- Present the demo of web application implemented
- Discuss limitations and future work
- Answer questions.

5. Final Report

<u>Deliverable:</u>

- Cover page with a space for comments & grade on each phase
- Outline
- Team Structure
- Table of each member's work summary
- Introduction to business logic (brief)
- All previous phases' deliverable & user guide to app functionality
- Limitations & Future Work
- Lessons learnt & Members' review on the project Experience

Moodle Submission

- Final Report with all testing screenshots (user guide)
- Project Coding Folder (with all resources)
- Project Demo (video)
- Web application host for Beta testing (link)
- PowerPoint Presentation

3.3. 1% Bonus

- Session based user access

Design Guidelines:

- Use common master-page to all webpages (e.g. same header and footer for social media icons)
- Add navigation and min. 4 webpages to your application
- Build login & registration feature (Other unauthorized users should be prevented access)
- Use stylish icons or menu for navigation that shows submenus as required (e.g. Gallery has 2 sub options: pictures and videos and for event, you have past, ongoing and upcoming sub-options)
- Additional controls: needed to dynamically change web app theme and font size and to translate the website content to Arabic.
- Use a custom logo, images, and content that matches the app context.
- Design is your call so be CREATIVE!!

Testing: For a better showcase, host your site for Beta Testing for the presentation day