DSW02A1 Project Description

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Semester: Feb – June 2021

Total Marks: 100

**Due Date:
27.05.2022**

Group Project – Web Application Development/Programming

Project Details

Teams/Groups

The team project (Must strictly be 5-6 students per team not more!) for this course involves conceptualizing, Analysis, designing, and Implementation of a Web application. Use the Web programming languages to develop a website that captures the information contained in the project framework.

Project Framework

Design and implement a website for your project. Recall that a website is a domain of Human and Computer Interaction, and your site will be evaluated accordingly. The website need to be elaborative, but it should serve the purpose of the users of your website. Users of your website are your development team, me (the lecturer), graduate students, and your client. We use your website to track your progress and evaluate your design and documents. **Think of a potential problem of a societal or social problem that you can solve by using a Web application. Your problem should either be a societal or social problem that is known or not yet identified, and the solution must be in a form of a Web application which is unique, innovative and shows creativity.**

All design documents should be linked in your website in a format readable by all web browsers. Initially, the website will include a home page with application name, group membership and contact information. The initial website will also contain the interaction design documents.

You may use most any tool or templates that you would like to make your team website. There should be a database backend in the implementation. Lastly, something like WordPress would NOT be appropriate. The website should not have redirection.

High-Level Requirements

The Web applications serve as three things; which are serves as your gateway to everything else; your daily entertainer and lastly, it represents you. Thus, the **WEBSITE** that you conceptualize must be representing your team values, must represent you, and most importantly be unique to you.

Besides, the Web application must meet the following requirements:
– Must uniquely meet a clear need and solution.
– Must be well-designed and user-friendly,
– Must have a creative user interface.
– Must be innovative,
– Must have at least three domain objects,
– Must have data that persists throughout multiple user sessions,

– Usage of web services and API's

– Must have be able to store and retrieve information to the database.
– Must use at least one Internet-based service (e.g., YouTube, Twitter, Facebook, or other websites links which contains relevant information).

NB: All groups or teams must design an original distinct Website. There should NOT be multiple groups or team that meet the same needs or similar problem. I expect that each group designs and develop an original website that is distinct. Since the project entails designing and implementing an innovating website that represents you, use this opportunity to showcase your innovative ideas, creativity in your websites design.

Evaluation Criterion

Criterion (1): Environment Setup and Running

- Tools used to build your website.
- Explanation of how these tools are integrated.
- Web app is running on all browsers.

Criterion (2): Web App Problem Definition, Requirements and Design Document

Submit: Define and identify a relevant problem
: A SINGLE design document using MS Word/Latex writing system that shows:
◦ Narratives
◦ A UML class diagram
◦ Sketches / screen dumps of the system.
◦ Web layout mockups; and
◦ Screen flows, Use-cases

Criterion (3): Debugging, Profiling & Lifecycle Management
- Web app must be easily debugged.
- List of different users,
- Data privacy and access limitations.
- Security features
- API and webservice integration

Criterion (4): Database development & Integration Requirements

You need to show evidence of website app can perform CRUD components.

Showcase:

– Ability to perform creation, retrieval, updates, and deletions (CRUD) with your data store (relational database)

Criterion (5): Functional Demonstration of Your Website

Showcase:

- Demonstrate all the functional requirements
- And use-cases defined.

Criterion (6): Demonstration of Your Non-Functional Requirements Report Expectations

Showcase:

- Demo the non-functional requirements if any.

Use of Trello

Each team must ensure that they use Trello to manage team workload and assign members their task and timelines.

- Collaborate, manage projects, and reach new productivity peaks. From high rises to the home office, the way your team works is unique

GitHub Repository

Your team will store code in a GitHub repository: https://github.com/

Each team member should have a GitHub account. So, if you do not already have an GitHub account, you should make an account now. You will need an account to be added on your team.

When you assign your team to a repository, you will get an invite email from GitHub. You need to respond to the email to have access to the repository. The GitHub user interface does not allow to resend the invite, so be sure to respond to it. You will provide group names when you submit your idea conceptualization document. If you did not get the email, check your trash, or spam email folders.

Submit on Blackboard (Bb)
Your team should submit on Bb:
Team name
Team email address
Team leader names and team leader role
Table of team member name and github name in Excel

SUBMISSIONS

The project submission will include presentations and submission of the Final Project and Final Documentation.   The final documentation should be included in the **readme file** of your group **GitHub** site with all the files organized so that when downloaded, they display perfectly in the browser. No project will be accepted after the end of the assigned date for submission. A link to the **Github** should be included on each group's project page.

Submit on Blackboard y 23:59 pm on the due date of Project.

References: You are responsible for citing any third-party intellectual property you use in the project. – **Clear Writing**: Your writing should be simple, concise, and easy to understand; if not, revise it! Your writing should demonstrate a logical sequence of thought; spelling and grammar errors should be absent. Most word processing tools (including online ones such as Google Docs) have built-in spelling and grammar checkers; please use them and note that Prospective employers and graduate schools expect clear writing. In addition, Latex writing is preferred.

- **Figures**: You are welcome to include figures in your report. Please cite them as "Figure 1. Hand-drawn figures are not allowed in the document; please draw them with software such as MS Visio, eDraw, OmniGraffle, etc.