TMT 2654 / TME 2104 Web-Based System Development

PROJECT PROTOTYPE (20%)

Due on 7th Jan 2022, 5pm (Friday)

Web Framework is STRICTLY NOT ALLOWED!

Instruction

This is a group project between 3-4 students. Please divide task evenly among group members (recommend - pair programming), as individual contributions will be evaluated via peer grading, presentation and QA.

Each group is required to develop a web application based on the case study and business plan.

The developed web application must be hosted online and accessible to your lecturer at any time throughout the semester (until *January 30, 2022*) for evaluation and grading.

User Requirements

This project expects the web application to have these necessary features:

1. **THREE (3) User Types**, each having their own set of permissions
    i.   Public User
    ii.   Registered Member
    iii.   Administrator
2. For Public User,
    i.   Able to **browse** items/products/services, add item(s) to cart.
    ii.   Able to direct user to the Member Registration page upon clicking the checkout/make payment button.
3. **Member Registration**. Following fields are **MUST** in the registration form,
    i.   Full name – alphabet (uppercase, lowercase or mix)
    ii.   Email
    iii.   Password
        - 6 digits
        - Must contain ONE uppercase, ONE numeric, ONE special character, number and no space
        - Hidden password
    iv.   Any other fields necessary (refer to Project Specific Requirements)
4. Dashboard for Registered Member,
    i.   Able to **Login** and **Logout**, **edit** profile detail.
    ii.   Able to browse items/products/services, **add** to cart, **view** transaction details (date, time, price, quantity, sub-total/total, and any other necessary fields).

iii.   Able to checkout/make payment (support **dummy transactions**).

iv.   Able to show payment receipt (on-screen or pdf).

5.   Dashboard for Administrator,

i.   Able to **Login** and **Logout**.

ii.   Able to perform **create**, **read**, **update** and **delete** actions on registered member accounts, items/products/services and prices.

iii.   Able to **view** a summary of transaction records (daily/weekly/monthly).

iv.   Able to **generate** transaction report (on-screen or pdf).

6.   Note on dashboard design
(*https://www.justinmind.com/blog/dashboard-design-best-practices-ux-ui/*   *and https://www.w3schools.com/w3css/tryw3css_templates_analytics.htm)*

Software Requirements

1.   **Chrome browser** will be used to access the web application later (so make sure it is compatible).

2.   The main page of the web application **MUST** start with *index.html* or *index.php*

3.   Create DHTML using HTML, CSS, JavaScript and DOM. The libraries and APIs allowed:

i.   Animation – anime.js or three.js

ii.   Data visualisation – D3.js, Victory, React-vis, V charts or chart.js; Canvas API, WebGL

iii.   Any 3rd party APIs

4.   HTML form input validation must be implemented using **JavaScript and PHP**.

5.   Database and table must be managed using **PHP and MySQLi**.

6.   Content management system (eg. Wix/WordPress/Drupal/Joomla etc) is NOT allowed. Front-end or back-end framework (eg. Bootstrap/ Angular/ React/ Node/ Yii/ Cake/ Laravel etc) is NOT allowed. If the requirements are not met, then your group will be given **ZERO marks**.

Submission

1.   Submit the group prototype latest by **5pm, 7th Jan 2022 (Friday)**.

2.   Create and submit a ***.txt** or ***.doc** file (i.e. *Galaxy_README.txt*) on eLeap. The following **MUST** be included in the file:

i.   A link of the compressed folder where you keep the group prototype files (Microsoft OneDrive or Google Drive). Make sure it set to **public** shared.

ii.   URL of group prototype web hosting address, which must be accessible using a web browser over the Internet.

iii.   The username and password of the web hosting account that was utilised (you may change after the semester end).

** Any late submissions will be penalised accordingly (minus 1 mark per day) **

TMT2654 / TME2104 GRADING RUBRIC (20%)

Criteria	0 mark	1 mark	2 marks	3 marks
Hosting 1 (CLO3)	No web hosting. After typing the URL, web application fails to appear in the web browser OR Local files submitted.	After typing the URL inside the address bar, web browser shows file directories.	After typing the URL inside the address bar, index.html appears inside web browser.	-
Design & Creativity (CLO2)	Inconsistent layout/design; not incorporate visual design elements and principles; included copyrighted images.	Single column / split screen / grid / boxes layout. Dull design - incorporated minimal visual design elements and principles; minimal used of libraries or APIs.	Single column / split screen / grid / boxes layout. Well done design - incorporated most visual design elements and principles; used multiple libraries or APIs; used a good variety of appropriate images.	Single column / split screen / grid / boxes layout. Creative with originality design - incorporated all visual design elements and principles; used multiple libraries or APIs; great variety of appropriate images.
Navigation / Links and Security (CLO2)	Non-existent OR links not working at all	The user may become confused with inconsistent / illogical links or missing / broken links. No PHP sessions used.	The user can easily navigate back and forth through pages with consistent / logical and easy to find links. No PHP sessions used.	The user can easily navigate back and forth through pages with consistent / logical and easy to find links. Used PHP sessions to keep track of a user navigation between pages.
User account (CLO2)	Non-existent or user registration is not functioning.	Users can register a new account and re-login.	Users can register a new account, re-login and edit own details.	-
Admin account (CLO2)	Non-existent	Minimum one admin account, can at least **Delete** registered user account.	Minimum one admin account; can perform **Create**, **Read** and **Update** actions on user accounts, items, prices, transaction records and reports.	-
Payment – receipt and auto-send to user's email account (CLO3)	Non-existent	Correctly display payment receipt on-screen / pdf. Non-professional looks. Not received in user's email account.	Correctly display payment receipt on-screen / pdf. Professional looks. Not received in user's email account.	Correctly display payment receipt on-screen / pdf. Professional looks. Successfully received in user's email account.
Dashboard & Report (CLO3)	Dashboard does not exist OR report is manually generated	Only some dashboard functions work; produces inaccurate / incomplete report.	All dashboard functions work; produces inaccurate / incomplete report; no customisation / filtering of report output	All dashboard functions work; produces accurate / complete report; allows customisation / filtering of report output.
Database & Tables (CLO3)	Non-existent OR not created/managed using PHP and MySQLi	Minimum one database containing one table. Created and managed using PHP and MySQLi	Single or multiple databases containing more than one table. Created and managed using PHP and MySQLi	-