Individual Project Overview

- The individual project is intended to evaluate your proficiency in designing and developing WIS.
- The project is a large semester long project that will use all the skills you learn in the course.
- The project includes the following 3 assessment items:
    - technical **design document** (**20% Weighting**)
    - **code review** (**10% Weighting**)
    - final **project submission (30% Weighting)**
- The detailed feature requirements are listed in **Table 2**. Please make sure you carefully read them and feel free to ask questions.
- You are required to design the user interface and how each feature is implemented. Design mockups or screen grabs will not be provided.
- You can use any CSS components library e.g. Bootstrap, Tailwind, DaisyUI in the project but are not allowed to use pre-made templates.

Selecting an Individual Project

- **THREE** project topics in **Table 1** have been provided for you to choose from, and you will need to select only one to work on independently throughout the semester.
- Any other project proposed by the student needs to be approved by the Course Coordinator.
- **Once you choose a project you must submit all three related assessment items on the selected project.**

Table 1: Available Project Options

Project Name & Description	Main Features
MenuScanOrder MenuScanOrder is a Software as a Service (SaaS) platform designed specifically for restaurants, cafes, and coffee shops to streamline their ordering process. This innovative platform allows these businesses to sign up and create a digital menu, complete with categories, items, and prices. Upon setting up their account, they can enter the total number of tables in their establishment. The system then generates unique QR codes for each table, which can be printed out and placed at tables for guests to scan.	**Digital Menu Creation:** Allows businesses to easily create and manage a digital menu with categories, items, and pricing. **QR Code Generation:** Automatically generates unique QR codes for each table, facilitating easy access to the menu by guests. **Seamless Ordering:** Guests can scan the QR code at their table to view the menu and place orders directly from their smartphones. **Order Management:** Staff can view and manage orders in real time, ensuring a smooth dining experience for guests.
ChartTale ChartTale is a Software as a Service (SaaS) platform designed to transform raw data into compelling visual stories. It allows users to sign up and upload CSV files, which can contain any type of data they wish to visualize. After uploading, users can create a variety of charts and add textual descriptions to narrate the story behind the data. One of the unique features of ChartTale is its ability to share these data stories publicly. Additionally, users can generate QR codes that link directly to their stories, making it easy to access and share with a wider audience.	**Data Upload:** Users can upload data in CSV format, making it easy to start visualizing data without complex setup. **Chart Creation:** Offers a wide range of chart types to choose from, enabling users to find the best visual representation for their data. **Story Narration:** Allows users to add textual descriptions alongside their charts, providing context and insights into the data presented. **QR Code Generation:** Generates QR codes for each data story, simplifying the process of sharing and accessing these stories.
EvalForm EvalForm is a Software as a Service (SaaS) platform designed to simplify the process of gathering feedback and conducting surveys. This user-friendly platform enables users to create single-page surveys that support multiple-choice questions as well as free text entry, catering to a wide range of survey needs. Once a survey is created, users can generate and print out sheets with QR codes linked to their surveys, making it exceptionally easy to share with respondents in various settings. Additionally, EvalForm provides functionality for users to view responses in the form of simple charts, offering immediate insights into the collected data.	**Survey Creation:** Users can easily create single-page surveys with a mix of multiple-choice questions and free text responses to accommodate diverse feedback collection needs. **QR Code Generation:** Allows for the generation of QR codes for each survey, facilitating easy access and distribution to potential respondents. **Survey Response Collation:** Allows respondents to complete surveys and stores the results. **Response Visualization:** Users can view simple charts of survey responses, providing quick and understandable insights into the collected data.

Custom Project

- You must submit a proposal for a project idea for a SaaS platform.
- You must submit your project idea proposal to the Course Coordinator via email by the end of Week 2.
- You can decide if you want to make the project idea available to other students.
- Can't be a project from last year's course.

Code Submission:

You need to declare your implemented features for marking by filling in the feature declaration form (available on Blackboard). You must submit a single **zip file** named 's1234567_finalproject.zip' (replace with your student number) that includes your **source code folder(s)** and the **feature declaration form.**

Additional Questions:

If you have any questions about this assessment brief, you're welcome to post them on the course Ed Discussion and we'll get back to you soon.

A Message About Plagiarism:

⚠ **Plagiarism is considered a serious offence at UQ.** Failure to declare the distinction between your work and the work of others will result in academic misconduct proceedings.

- The use of Generative AI (i.e. ChatGPT, Google Bard, Microsoft Bing Chat and Github Copilot) is allowed for this assessment item to assist you in designing your web application and learning new concepts. However, treat what you're producing here as a "trade secret" and don't share your code with other students. Also include details of where Generative AI has been used.
- If you're inspired by design or code from online tutorials or any other external source, ensure that they are completely recreated in your own style. Ensure you reference any inspirations for academic purposes (using APA/IEEE referencing styles).

Project Assessment Item (Weighting 30%)

Table 2 includes the grade breakdown for each required feature. Select 1 advanced feature worth 4 grade points.

Table 2: Project functionality and grade breakdown.

ID	Feature Description	Max Grade = 30
1	**Core Functionality**	**18 marks**
1.1	Includes a landing page and supports login with social providers (e.g. Google, Github, etc) or stores passwords	1
1.2	Implements appropriate authorization (security) across all web pages and features	1
1.3	Implements an admin interface to manage (create, list, edit and archive) user subscriptions	2
1.4	Implements an appropriate relational database with fields to store all required data in a non-redundant manner	2
1.5	Implements an intuitive, responsive and accessible web design	2
1.6	Implements a paged UI to allow users to create, list, edit and delete [menus | data stories | surveys | custom]	2
1.7	Implements a UI for the user to add items [menu items | upload csv | survey questions | custom]	4
1.8	Generates QR codes to share [menu for each table | link to data story | link to survey | custom]	2
1.9	Successful deployment of web application and database to either UQCloud or AWS	2
2	**Project Specific Features**	**2 marks**
2.1	MenuScanOrder: Allow customers to scan a QR code, select items from a menu and submit an order	2
2.2	EvalForm: Allow survey respondents to scan a QR code, complete the survey and submit it	2
2.3	ChartTale: Allows data story authors to select columns from the dataset and create bar and line charts	2

3	**Code Style and Quality** (Note: Max Grade will be capped at 3 grade points if only 50% of functionality is implemented)	**6 marks**
3.1	Adheres to the MVC patterns using the CodeIgniter conventions	1
3.2	Avoids code duplication and implements shared code for content types (eg charts, survey questions, different types of menu items)	2
3.3	Addresses relevant security concerns (e.g. prevents cross-site submission, and SQL injection, etc)	1
3.4	HTML, CSS, PHP and JavaScript are neatly formatted and commented	2
4	**Advanced Features (Select 1 advanced feature to equal to 4 grade points. Multiple advanced feature items will not be graded.)**	
4.1	MenuScanOrder: Allow staff to view and mark an order as completed	4
4.2	ChartTale & EvalForm: Support additional chart types or additional survey question types and/or visualisations	4
4.3	EvalForm: Allow survey responses to be exported	4
4.4	Implement social sharing, likes and commenting	4
4.5	Implement a recommendation algorithm	4
4.6	Include Machine Learning or GenAI functionality (e.g. auto-create content, write analysis, you can be creative….)	4
4.7	Implement a Progressive Web Application (with Notifications and Mobile Device Specific features)	4

Design Document Assessment Item (Weighting 20%)

The design document is a pre-project implementation document that presents a plan for the development of your chosen project.

Table 3: Design Document sections

Section	Description	Max Grade = 20
Project Overview	You are required to provide a comprehensive explanation of the main purpose of your project and the target audience.	2
Key Features	Describe the key features of your project.	2
UI/UX Design HTML Mockups	Choose a CSS UI library and implement HTML mockups that represent all the main features of your project. The HTML mockups must be responsive and resize across multiple device sizes.	6
Database Design	Include an Entity-Relationship Diagram with all database tables, fields and relationships between tables. The database must support multiple users for the SaaS functionality.	6
Technology Research	Detail any research of evaluation of component choices e.g. choice of a text editor, charting library, etc.	2
Timeline	You are required to outline the major deliverables for each milestone.	1
References	Include relevant references and declare your use of GenAI.	1

Submission:

You must submit a single zip file named 's1234567_designdocument.zip' (replace with your student number) that includes the pdf of your design document and source code for the HTML mockups.