**Project Proposal: Fast Food Chip Truck Website**

**Course:** SFWRTECH 4WP3 – Advanced Web Programming  
**Student Name:** Kevin Lai  
**Date:** 2025-02-22

**Student Number:** 400539423

**Purpose of the Application:**

This web application will serve as an **online platform** for my family’s **fast food chip truck**, allowing customers to:

* **Browse the menu** (with images & prices).
* **Locate the truck’s real-time location** on a map.
* **Leave reviews and ratings** for menu items.

This will help **build a digital presence** and encourage customer engagement by allowing visitors to **rate and review food items**.

**Potential Users:**

* **Local Customers:** Check the menu before visiting.
* **New Customers:** Find the truck via online search and view its location.
* **Returning Customers:** Leave reviews and see top-rated dishes.

**Planned Actions (CRUD Operations):**

|  |  |
| --- | --- |
| Action | Description |
| Add a menu item | Admin (owner) can add new menu items (name, price, description, image). |
| View menu items | Customers can browse all available menu items. |
| View a single menu item | Users can click on an item to view details. |
| Update a menu item | Admin can update item details (price, availability, etc.). |
| Delete a menu item | Admin can remove items that are no longer sold. |
| Search menu items | Users can search for a specific item (e.g., "poutine"). |
| Leave a review & rating | Customers can submit a **star rating (1-5)** and review text. |
| View reviews for a menu item | Customers can see **all reviews** for a selected item. |

**Responsive Changes (When Screen < 768px):**

The following **three explicit responsive design changes** will occur:

1. **Menu Grid Layout:** Switch from a **three-column grid** to a **single-column list** for better readability.
2. **Navigation Bar:** The main menu will collapse into a **hamburger-style dropdown menu**.
3. **Review Section:** Reviews will switch from a **two-column layout** to a **single-column scrollable list**.

**SQLite Database Schema:**

The application will use an **SQLite database** with **three tables**:

**user Table (Stores Admins & Customers)**

|  |  |  |
| --- | --- | --- |
| Column Name | Type | Description |
| id | INTEGER (Primary Key) | Unique user ID |
| email | TEXT (Unique) | User's email (used for login) |
| username | TEXT | Display name for the user |
| password | TEXT | Hashed password (for security) |
| role | TEXT | "admin" or "customer" |

**menu\_items Table (Stores Food Menu)**

|  |  |  |
| --- | --- | --- |
| Column Name | Type | Description |
| id | INTEGER (Primary Key) | Unique identifier for each menu item. |
| name | TEXT | Name of the menu item (e.g., "Cheeseburger"). |
| description | TEXT | Short description of the dish. |
| price | REAL | Price of the menu item. |
| category | TEXT | Category (e.g., "Burgers", "Fries", "Drinks"). |
| image\_url | TEXT | Link to an image of the item. |

**reviews Table (Stores Customer Reviews)**

|  |  |  |
| --- | --- | --- |
| Column Name | Type | Description |
| id | INTEGER (Primary Key) | Unique identifier for the review. |
| menu\_item\_id | INTEGER (Foreign Key) | Links the review to a specific menu item. |
| customer\_name | TEXT | Name of the customer who left the review. |
| rating | INTEGER | Star rating (1-5). |
| review\_text | TEXT | Review comments from the customer. |
| created\_at | TEXT | Date and time the review was posted. |

**Form Validation**

There will be more validation checks done these are just a few being listed:

1. **Rating Field (rating)**
   * **Validation:** Must be a **whole number between 1 and 5**.
   * **Backend Handling:** If invalid, show an error like:
     + "Rating must be a number between 1 and 5."
2. **Signup Form**
   * **Email:** Must be a **valid email format** (e.g., user@example.com).
   * **Backend Handling:** If invalid, show an error like:
     + "Please enter a valid email address."
   * **Username:** Must be at least 3 characters long and contain only letters/numbers
   * **Backend Handling:** If invalid, show an error like:
     + "Username must be at least 3 characters and contain only letters and numbers."

**UI Prototype**

A screenshot of a food menu

AI-generated content may be incorrect.