Restaurant Website Project Proposal

1. Project Idea

This project involves designing and developing a professional restaurant website to serve as an online portal for customers. The website will offer essential features such as an interactive menu, an online reservation system, and details about the restaurant's offerings and vibe. It will prioritize user experience, accessibility, and security, making it easy for customers and staff to engage with the system.

2. Problem Statement

In the competitive restaurant industry, an effective online presence is crucial for attracting and retaining customers. Many small to medium-sized restaurants either lack websites or rely on outdated platforms, which negatively affect customer engagement. This project aims to address these issues by providing a modern, scalable, and user-friendly solution tailored to both customers and administrator’s needs.

3. User Personas

Customer

* Role: End User
* Needs:
  + Access the menu to explore dishes and prices.
  + Make reservations quickly and easily without technical difficulties.
  + View reviews to make informed decisions.
* Pain Points:
  + Frustration with slow or non-mobile-optimized websites.
  + Difficulty finding or accessing reservation systems.
  + Lack of clear or updated information on the website.

Restaurant Staff

* Role: System Admin/Manager
* Needs:
  + Manage and update the menu seamlessly.
  + View and manage reservations effectively.
  + Monitor and respond to customer feedback.
* Pain Points:
  + Manual processes for managing reservations or customer interactions.
  + Statistics (e.g., most ordered item, worst reviewed item).

Developer

* Role: Technical Maintainer of the Website
* Needs:
  + Ensure the system remains functional and secure.
  + Deploy updates with minimal downtime.
* Pain Points:
  + Challenges with maintaining performance during peak usage.
  + Ensuring Cross-Browser Compatibility.

4. Functional Requirements

4.1 User Features

1. Homepage:
   * Display restaurant branding, highlights, and links to key sections.
2. Menu Section:
   * Provide categorized menu items with descriptions, prices, and filters (e.g., allergies, vegetarian, gluten-free).
3. Reservation System:
   * Allow customers to select the date, time, and number of seats for reservations.
   * Provide confirmation via email or SMS.
4. Customer Reviews:
   * Display reviews and allow customers to submit new reviews.
5. Contact Page:
   * Offer an easy way to connect with the restaurant via form submission, phone, or WhatsApp.

4.2 Administrative Features

1. Menu Management:
   * Enable updates to menu items, descriptions, and categories.
2. Reservation Management:
   * Allow viewing, approving, or cancelling reservations.
3. Analytics Dashboard:
   * Provide insights on customer engagement (e.g., most popular dishes, peak reservation times).

5. Non-Functional Requirements

1. Performance:
   * Load times for all pages should be under 3 seconds.
   * Handle at least 50 simultaneous reservations without performance degradation.
2. Scalability:
   * Support future features such as online ordering.
3. Security:
   * Use HTTPS for secure communication.
   * Encrypt customer and reservation data.
4. Usability:
   * Design an easy to use/familiar interface
5. Reliability:
   * Ensure 99.9% uptime with failover mechanisms in case of server failures.

6. System Constraints and Assumptions

* The system will initially support English but will support Arabic in the future.
* Hosting will be done on a cloud platform

7. Tools and Technologies

* Frontend: HTML5, CSS3, JavaScript, React.js.
* Backend: Django.

9. Expected Outcome

A responsive, secure, and user-friendly restaurant website that enhances customer satisfaction, easy reservation management, and aligns with modern software engineering principles.