



BURGER HOUSE

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Burger House is a dynamic and user-friendly restaurant management system that aims to enhance the dining experience by seamlessly integrating technology with customer service.



BURGER HOUSE

Bringing delicious dining experiences to your fingertips.

Project Proposal: Burger House (Restaurant Management System)

Project Overview:

Burger House is a comprehensive restaurant management system designed to simplify the processes of food ordering and table reservations for customers. This system will allow users to make reservations for dine-in experiences, place food orders, and manage their cart, while providing a user-friendly experience with a responsive front-end and secure back-end for handling operations.

The website will be built using HTML and CSS for the front-end to ensure a responsive design that works across different devices, while Java Server Pages (JSP) will be used for the back-end to handle dynamic content generation. MySQL will serve as the database to store user information, orders, reservations, and food menu details.

Technologies Used:

- **Frontend:** HTML, CSS (Responsive design)
- **Backend:** Java Server Pages (JSP)
- **Database:** MySQL
- **Additional Tools:** PDF generation for receipts, user authentication

Key Functionalities:

1. Responsive Front-End:

- The front-end of the Burger House system will be designed to ensure it is fully responsive, making it accessible across all devices (desktops, tablets, and mobile phones).
- The website layout will adjust automatically based on screen size, providing an optimal user experience on any device.

2. User Registration and Login:

- Users will be able to **register** with a unique username, email, and password.
- **Login functionality** will allow returning users to access their accounts securely using their credentials.
- The authentication will include session management to keep users logged in until they choose to log out.

3. Food Ordering System:

- Users will be able to browse through the restaurant's **menu** and select food items they wish to order.
- The system will display food categories (e.g., burgers, fries, drinks), and users can click on items to **add them to the cart**.
- Each item in the cart will show the **name, price, and quantity**. Users can update the quantity or remove items.
- Once the user is ready, they can **confirm the order** and proceed to checkout.

4. Order Receipt (PDF Generation):

- After confirming the order, users will receive an **order receipt** in PDF format, which will include all ordered items, their prices, the total amount, and the user's details (name, address, etc.).

- The receipt will be generated dynamically using backend logic (JSP) and will be downloadable for the user's reference.
- 5. **Table Reservation System:**
 - If a customer chooses to dine in at the restaurant, they can **reserve a table** in advance through the website.
 - The reservation system will allow users to select a **date, time, and number of people**.
 - Users will receive a confirmation message after booking the table, with the details of the reservation.
 - The system will ensure that tables are only available for booking at certain time slots based on restaurant availability.
- 6. **Order Confirmation:**
 - Once the order is placed and payment (if applicable) is processed, the user will receive an **order confirmation** indicating the estimated preparation time and their total order amount.
 - A unique order ID will be assigned for tracking purposes.
- 7. **Admin Panel:**
 - An **admin panel** will be created to manage orders, view reservation details, and update the menu. Admins will also have the ability to adjust table availability and handle incoming reservations.
- 8. **Security Features:**
 - User data will be securely stored in the **MySQL database** with proper encryption for passwords and sensitive details.
 - The system will utilize session management for secure login and protection from unauthorized access.

Database Design:

The database will consist of the following key tables:

1. **Users Table:** Stores user credentials (username, email, hashed password).
2. **Menu Table:** Stores food items (name, description, price).
3. **Orders Table:** Stores customer orders (user ID, order ID, item IDs, total amount, timestamp).
4. **Reservations Table:** Stores table reservation details (user ID, date, time, number of people, reservation status).
5. **Admin Table:** Stores admin credentials for managing the system.

Conclusion:

The Burger House Restaurant Management System aims to provide a seamless user experience for customers wanting to place orders online and reserve tables at the restaurant. By combining a user-friendly front-end with a secure back-end and an efficient database, this system will handle food orders, reservations, and receipts with ease. The features mentioned above will allow customers to interact with the system in a simple and efficient way while ensuring the functionality is both secure and reliable.