Report

Group 2

Group Members:

* Swatiben Pawar(C0893717)
* Het Pandya(C0892917)
* Avan Panchal(C0895319)
* Sagar Gangani(C0894464)
* Jayti Patel(C0895313)

**Abstract**

The Online Food Ordering System is designed to streamline the food ordering process. This system provides a user interface that updates the menu with all available options, simplifying the customer’s task. Customers can select multiple items to place an order and view order details before logging off. Order confirmation is sent to the customer, and the order is placed in a queue, updated in the database, and returned in real-time. This system assists staff in processing orders efficiently in real-time. The primary function of the online food order system is to enhance online food ordering for hotels and restaurants, allowing customers to select menu items quickly and easily, and facilitating prompt delivery to their location. Restaurant employees can navigate orders through an intuitive graphical interface for efficient processing.

**Introduction**

The Online Ordering System is a convenient method for customers to purchase food online without visiting the restaurant. Enabled by the internet, this system connects the restaurant or food company with the customer. Customers can visit the restaurant's website, browse through available food items, and select and purchase the items they need, which are then delivered to their doorstep at a chosen time. Payments can be made through debit cards, credit cards, cash or card on delivery, or digital wallets. This secure and popular method is revolutionizing the food industry. The proposed “Online Food Ordering System” is designed for fast food restaurants, take-out services, or college cafeterias, but it can be used in any food delivery industry. It automates the entire order-taking process, simplifying the ordering process for both customers and restaurants.

**Motivation**

The motivation for designing this application stems from the developer’s family involvement in the fast food business and a personal dislike for long wait times in stores or having to call in orders during peak hours. The developer values recent learning about JS programming languages and frameworks like Node.js , Express and EJS and MongoDB databases, finding them extremely useful for web designing and applications. This system addresses several issues:

1. Reduces manual work.
2. Overcomes problems in the manual system.
3. Fully computerized system.
4. User-friendly interface.
5. Provides quick reports.
6. Highly efficient and accurate.
7. Prevents unauthorized data access.
8. Automated processes.

**Problem Statements**

1. Late deliveries due to network problems.
2. Incorrect orders delivered due to communication issues.
3. Orders not delivered at all.
4. Rude customer service.
5. Cold food delivered.
6. Drivers requiring excessive guidance to find delivery locations.
7. Payment issues.
8. Increasing budgets due to online food ordering system services.
9. Lack of visual confirmation for order placement.

**Purpose, Objectives, and Goals**

The proposed system is developed to manage ordering activities in fast food restaurants. It records customer-submitted orders and supports the restaurant’s business processes. The system covers the following functions:

1. Allows customers to order, view, and modify their orders before submitting and making payments through prepayment cards, credit cards, or debit cards.
2. Provides an interface for promotions and menu management.
3. Displays customers’ order details to front-end and kitchen staff for efficient order processing.
4. Generates reports for decision-making.
5. Allows management to modify food information such as prices, add new menus, and manage user, system menu, and promotion records, minimizing the need for back-of-counter employees and reducing labor costs.
6. Ensures accurate order placement, avoiding long queues due to fast execution and optimal screen accommodation.

**Objectives and Goals**

1. Increase efficiency and improve customer service through better technology application.
2. Stand out from competitors in the food service industry.
3. Enable customers to order custom meals not on the menu.
4. Provide visual confirmation of order placement.
5. Inform customers about food ingredients before ordering.
6. Reduce food wastage in restaurants.
7. Ensure correct order placement through visual confirmation.
8. Improve staff efficiency.
9. Eliminate paperwork and increase accuracy.
10. Increase service speed, sales volume, and customer satisfaction.
11. Reduce purchasing time and eliminate receipt paperwork through online transactions.

**Literature Survey**

Various case studies highlight the challenges of setting up a restaurant. Common problems include:

1. Customers visit the restaurant to place orders, check menu items, choose required items, and make payments.
2. This process demands manual work and time from the customer.
3. Ordering over the phone lacks physical menu verification, leading to order errors.
4. Restaurants need personnel to take orders personally or over the phone, offer a rich customer experience, and process payments.

**Project Scope and Limitations**

1. The system helps customers and administrators with the ordering process.
2. Simplifies ordering and eases the administrator’s and waiter’s jobs.
3. Provides a computerized solution for the food delivery system.
4. Ensures easy access at any stage.
5. Saves a lot of time.
6. Offers easy data backup.

**Limitations:**

1. Costs associated with backup storage.
2. Potential customer adaptation issues to online ordering or table-side checkout.

**System Analysis**

**Existing System:**

1. Non-computerized operating system.
2. Manual operations by waiters taking orders on paper or over the counter.
3. Leads to mistakes and misunderstandings between customers and waiters.
4. Poor record-keeping system.
5. Loss of vital records and unauthorized access issues.
6. Time wasted conveying information through the hierarchy.

**Scope of Existing System:**

1. Accepts customer orders.
2. Checks food availability.
3. Allocates specific orders to employees.
4. Employees provide services to customers.

**Limitations of Existing System:**

1. Mistakes in taking customer orders.
2. Tedious process of collecting customer orders.
3. Leads to misunderstandings between customers and employees.
4. Poor record-keeping.
5. Time wasted in information conveyance.
6. Reduces production flow.

**Project Perspective**

The Online Food Order System application is a web-based system accessible through internet browsers on PCs, laptops, etc. It includes the following components:

1. **Web Ordering System:** Allows customers to place orders and provide details.
   * Home page
   * Meal plan page
   * My cart page
   * Login page
2. **Menu Management:** Allows admins to manage food items and their properties.
   * Food item
   * Food size
   * Food price
   * Food image
   * Food description
3. **Order Retrieval System:** Enables restaurant employees to monitor and process orders.
   * Order plan
   * Order quantity
   * Delivery

**Features:**

1. Easy to use and low cost.
2. No technical expertise required.
3. Customer support.
4. Timely fulfillment and delivery.
5. Secure payment methods.
6. Analytics and reports.
7. Increase in business volume.

**Stakeholders:**

1. Platform owners.
2. Restaurant partners.
3. Delivery partners (managers and employees).
4. Customers.

**Requirement Analysis**

**Functional Requirements:**

1. Registration for users/clients.
2. Log in for administrators and clients.
3. Saving client information.
4. Change of requirements by customers.
5. Admin can manage the food menu.
6. Show food menu to users.
7. Record order details.
8. Show order status.
9. Admin can view orders.

**Performance Requirements:**

1. Improve the food delivery system.
2. Operations are performed within seconds.
3. User-friendly and mobile-friendly website.
4. Highly customizable.
5. Content management system.
6. Social media integration.
7. Customer support and interface.
8. Product comparison and user-generated reviews.
9. Appropriate operation output within seconds.
10. Quick receipt generation.

**Security Requirements:**

1. Customer identification.
2. Controlled page access.
3. Secure file access.
4. Administrative task restrictions.
5. Customer access limitations to administrator pages.