



Network For Ordering Food Online

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ABSTRACT

With the use of advanced computer software and hardware, the Online Food Ordering approach seeks to automate the current manual approach in order to suit user needs and save critical data and information for extended periods of time that can be easily manipulated and accessed. The required hardware and software are easily accessible and user-friendly. Keeping track of data, including shopping cart, item category, food products, delivery address, and order, is the main objective of the online meal ordering system. Data on the Customer, Shopping Cart, Item Category, and Item Category are all recorded. Only the administrator has access to the project because it is fully developed at the administrative level. The project aims to develop software that will decrease the time spent on manual food, customer, delivery address, and item category administration. The order, delivery address, and shopping cart information are preserved. Assisting clients with ordering meals anytime they'd like. Though as we've already indicated, this is a restricted option, customers will be able to purchase their favourite foods whenever they'd like. Restaurants must therefore use a certain method that will enable for them to fulfil a high quantity of patrons even though optimising activities. Ordering, which provides all of these features in addition to being one of the greatest platforms, a host.

Keywords : Web-based platform, Restaurant management, Customer satisfaction, Secure data storage, Error handling, JavaScript, php, Automation.

I. INTRODUCTION

The "Online Food Ordering System" was developed to take the place of the manual method that was in use and the problems it caused. The difficulties our

current system has are intended to be eliminated or, in certain situations, lessened by this programme. Furthermore, this system is customised to meet the unique needs of the company in order to guarantee effective and profitable operation.

The programme is kept to a minimum as much as is practical in order to reduce errors made when entering data. An error message is also shown when wrong data is entered. There is no formal knowledge necessary for a user to run this system. Thus, this simply serves to highlight how user-friendly it is. As was already said, an online meal ordering system might lead to an error-free, secure, dependable, and efficient management system. It might assist the user in shifting their attention from keeping records to other things. It is going to so help the company utilise its resources more effectively.

All organisations, regardless of size, face difficulties in handling and organising data related to Food Item, Category, Order, Payment, and Order Confirmation. Because every online food ordering system has different needs for food items, we design custom people management systems that are suited to your managerial expectations. This is meant to assist with strategic planning and ensure that your business has the right kind and quantity of information in place to achieve your long-term goals. Additionally, our technologies allow you to manage your employees remotely at any time, making them ideal for executives who lead hectic lives and are often on the go. In the end, these technologies will enable you to handle resources more effectively.

II. LITERATURE REVIEW

Examining the literature on Purchasing Food Online Systems

The literature on Purchasing Food Online Systems focuses on the automation of manual processes in the food industry, aiming to enhance efficiency and customer satisfaction. These systems utilize computerized equipment and software to store and

manage data related to item categories, food items, orders, and delivery addresses. By providing a user-friendly interface, they allow customers to place meal orders conveniently and enable restaurants to streamline their operations. Key features include error handling to ensure data accuracy and secure storage of sensitive information. Overall, the literature emphasizes the benefits of adopting Online Food Ordering Systems for improving service quality and optimizing resource utilization in the food industry.

III. METHODOLOGY

Approach:

The approach outlined in the literature on Online Food Ordering Systems involves the development of computerized solutions to automate manual processes in the food industry. This approach focuses on creating user-friendly software that enables customers to place orders conveniently and restaurants to manage their operations efficiently. Key components include designing intuitive interfaces for order placement, implementing secure data storage mechanisms, and incorporating error handling features to ensure data accuracy. The approach emphasizes the use of accessible technology to enhance customer experience and streamline business operations in the food sector.

Implementation:

Putting in Place an Online Meal Ordering Platform involves the utilization of various technologies such as HTML, CSS, JavaScript, PHP, and databases like MySQL. Through these technologies, a web-based platform is developed that allows users to peruse menus, choose products, place orders, and send money online. Restaurants also utilize the system to manage orders, update menus, and track deliveries. The implementation process includes creating

responsive web interfaces for seamless user interaction, integrating payment gateways for secure transactions, and implementing backend functionalities for order processing and management. Additionally, data pre-processing techniques are employed to ensure that information is organized and presented effectively to users. Overall, the implementation focuses on delivering a robust and user-friendly system that enhances the online food ordering experience for both customers and restaurants.

Characteristics

The characteristics of a System for Ordering Food Online include:

Interface that is easy to use: The system provides an intuitive interface for clients to peruse menus, submit orders, and settle bills easily.

Customization options: Customers can customize their orders according to preferences, such as specifying ingredients, portion sizes, and special instructions.

Menu management: Restaurants can manage their menus efficiently, including adding new items, updating prices, and removing discontinued items.

Order tracking: This feature offers customers convenience and transparency by allowing them to follow the progress of their orders in real-time, from preparation to delivery.

Secure payment processing: The system ensures secure payment transactions through encryption and integration with trusted payment gateways.

Delivery management: Restaurants can manage delivery logistics, including assigning delivery personnel, optimizing routes, and tracking delivery progress.

Feedback and review system: Customers can provide feedback and reviews on their orders,

helping to improve service quality and client contentment.

System integration: The system is capable of integrating with additional software solutions, such as inventory management and accounting systems, for seamless operations.

Mobile responsiveness: The system is optimized for mobile devices, allowing customers to place orders on smartphones and tablets easily.

Data analytics: The system collects and analyses data on customer preferences, order history, and sales trends, enabling restaurants to maximise their offerings and make well-informed selections.

Data Pre-processing

Data pre-processing in an Online Food Ordering System involves several steps to ensure that the data is clean, consistent, and ready for analysis. Here's how it typically works with the mentioned technologies:

HTML Forms: HTML forms are used to collect user input, such as delivery address, order details, and payment information. Data validation is performed on the client side using HTML attributes like required, pattern, and max length to ensure that only valid data is submitted.

CSS Styling: CSS is used to style the HTML forms and improve the user interface. While CSS doesn't directly involve data pre-processing, it enhances the presentation of forms, making them more user-friendly and accessible.

Bootstrap: A front-end framework called Bootstrap offers pre-made elements and styles for creating web pages that are responsive. It facilitates the creation of dependable designs and layouts. Across different devices, which indirectly contributes to a smoother user experience during data input.

JavaScript: JavaScript is often used for client-side validation and interaction with HTML forms. Through JavaScript, data entered by users can be

validated in real-time, providing instant feedback on any errors or discrepancies.

PHP: A server-side scripting language is called PHP. Commonly used for processing form data and interacting with databases. In an Online Food Ordering System, PHP scripts receive the form submissions, validate the data further, and sanitize it to prevent SQL injection and other security vulnerabilities.

MySQL: MySQL is a relational database management system that is used to store and manage data on the system. Prior to adding information to the database, it's essential to pre-process it to ensure consistency and integrity. This may involve formatting data, converting data types, and checking for duplicate entries.

IV. EXPERIMENTAL SETUP

Environment Setup: Configure the development and testing environment, including web servers (like Apache), database servers (like MySQL), and interpreters for programming languages (like PHP). Ensure that all necessary software dependencies are installed and properly configured.

Database Design: Design the database schema to store essential information such as food items, user accounts, orders, delivery addresses, and payment details. Create tables, define relationships, and set up indexes for efficient data retrieval.

System Configuration: Configure the Internet-Based Food Ordering Platform according to the specific requirements of the business or organization. This includes setting up user roles and permissions, defining order processing workflows, and configuring email notifications.

Functional Testing: Perform functional testing to verify that the system behaves as expected. Test each feature of the system, including user

registration, food browsing, order placement, payment processing, and order tracking. Ensure that all interactions with the system produce the correct outcomes.

Performance Testing: Performance testing is necessary to assess the system's responsiveness, scalability, and dependability under various load conditions. Measure response times, throughput, and resource usage by simulating several concurrent users using programmes like Apache JMeter or LoadRunner.

Security testing: To find and fix any possible weaknesses in the system, conduct security testing. Check for Common security vulnerabilities include SQL injection, cross-site scripting (XSS), and authentication bypass. Use security recommended practices including input validation, parameterized queries, and sensitive data encryption.

User Acceptance Testing (UAT): Use this technique to include end users in the testing procedure. Permit actual users to engage with the system and offer comments on its overall satisfaction, usability, and intuitiveness. Respond to any questions or concerns brought up during UAT.

Stress testing: Assess the system's resilience and stability in harsh environments by conducting stress tests. Apply heavy loads to the system beyond its normal capacity and observe how it behaves under stress. Identify potential bottlenecks or failure points and implement optimizations to improve performance.

Documentation: Document the experimental setup process, including configurations, test plans, test results, and any issues encountered during testing. Create user manuals and technical documentation to guide administrators and end-users on how to use the system effectively.

Deployment: Once testing is complete and all issues have been addressed, deploy the production

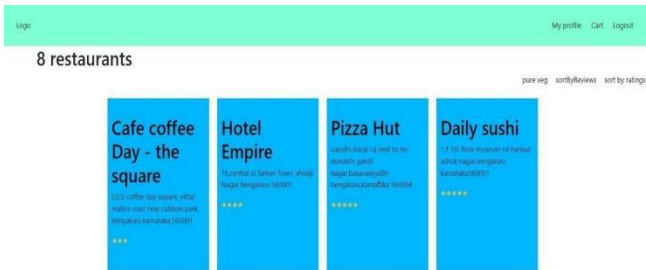
environment to the online food ordering system. Keep an eye on the system. Closely after deployment to ensure its continued functionality and performance in a live production environment.

V. ANALYSIS

Login Page



Home Page



Analysis of the Online Food Ordering System involves evaluating performance, user feedback, business impact, and security measures. It also includes market analysis, scalability assessment, and SWOT analysis to identify strengths, weaknesses, opportunities, and threats. Continuous feedback loops ensure ongoing improvements aligned with user needs and business goals. Documentation and reporting communicate key insights and recommendations to stakeholders and development teams. Through thorough analysis, the system's effectiveness, efficiency, and competitiveness can be optimized for long-term success.

Benefits and Drawbacks

Benefits: The benefits of an Online Food Ordering System include:

Convenience: Food orders can be placed at any time and from any location, eliminating the need to visit the restaurant physically.

Time-saving: Ordering online saves time for both customers and restaurant staff compared to traditional phone orders.

Increased efficiency: Restaurants can streamline their order-taking process, leading to faster service and reduced errors.

Expanded market reach: Online ordering allows restaurants to reach a broader audience beyond their immediate vicinity.

Better customer experience: Online platforms often provide detailed menus, customization options, and easy payment methods, enhancing the overall experience.

Improved order accuracy: Digital ordering reduces misunderstandings between customers and staff, leading to fewer order errors.

Enhanced marketing opportunities: Restaurants can leverage online platforms to promote special offers, discounts, and loyalty programs.

Valuable data insights: The system can collect data on customer preferences, order history, and feedback, enabling restaurants to make data-driven decisions.

Adaptation difficulties: Some customers, particularly older demographics, may prefer traditional ordering methods and struggle

VI. CONCLUSION

The online food ordering platform is an easy-to-use, safe way to place food orders. This system is able to handle both Administrators and Customers adequately. They will be able to handle customer

meals, delivery information, and growth without any problems thanks to this system. Because every Unauthorised access is prevented by assigning each user a unique user ID and password, this system is totally safe. It's far simpler to use with online registration, payment, and cancellation. Thus, by employing this method, labour costs can be reduced and clients can have more opportunities to enjoy the services.

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