Smart Cafeteria

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Abstract

This application is used to improve the canteen or restaurants. Using this application, restaurants or canteens can take the order themselves. They have food in the canteen at the time of more crowded times. Most of the people can go to the canteen at the same time, because, in educational instructions, corporate offices giving the same lunchtime or all employees, so within few hours the canteen employees serve a crowd. So, they need an application for taking orders online. In this application, people can order food online using sites, once they have paid for food, they can get the order id or booking id. They have to note that id and take it with them while they go to the canteen. They should show that id to the canteen service people. The service people can verify that id and serve the food to the concerned person.
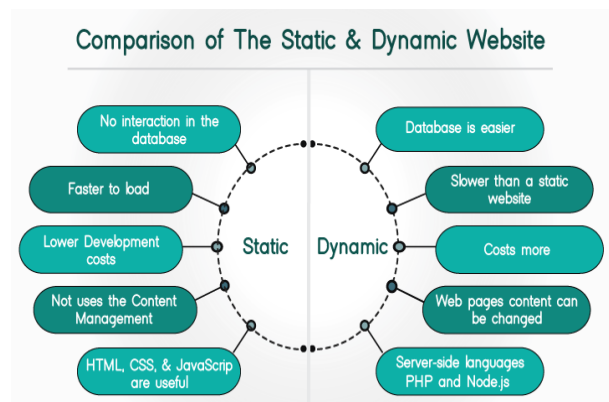
Keywords: *Online order, Canteen.*

1. INTRODUCTION

Software that makes possible canteen establishments to accept ,manage online food items might be referred to as an online food ordering system.Online ordering systems typically have 2 primary parts. For hungry clients to examine the canteen dishes and place an online order, there must first be a website or mobile app. The second is a restaurant admin management interface for receiving and managing orders from students and staff.A website can be used in many different ways, including as a personal website, a corporate website for a business, websites for the government, websites for an organisation, etc. Websites are often devoted to a specific subject or objective and might be the creation of an individual, a corporation, or other entity. It is possible for any website to connect to any other website, making it difficult for users to distinguish between different websites. On some websites, accessing material requires user registration or a membership. Many business websites, file-sharing websites, gaming websites, academic journal websites, news websites, message boards, web-based email, social networking websites, websites offering real-time stock market data, as well as websites offering various other services, are examples of subscription websites.

Figure 1: Comparison of static and Dynamic Website

Global eating habits are drastically altering. A little less than two decades ago, the only items that could be delivered that were of restaurant-quality were pizza and Chinese. Food delivery is now a $150 billion industry worldwide, having grown by more than three times since 2017. Following a strong historical growth rate of 8%, the market in the United States has more than doubled during the COVID-19 pandemic.

Ready-to-eat food delivery has emerged as a significant market thanks to the development of enticing, user-friendly apps and tech-enabled driver networks, as well as shifting consumer expectations. Early on in the pandemic, lockdowns and physical distance limitations greatly boosted the category, with delivery turning as a lifeline for the struggling restaurant sector. It is likely to continue to be a dependable part of the eating scene in the future.An ordering system is a collection of specific procedures used to manage the ordering process. 60% of Americans place a delivery order at least once a week. Revenue from meal deliveries in the US rose by 17% between 2019 and 2020, from $22 billion to $26.5 billion. The CAGR (compound annual growth rate) for the Indian online food ordering market is predicted to be 16.2%, reaching USD 17.02 billion by 2023. Ordering food can be done manually or through a computer. Many opportunities are emerging on the web or in mobile applications in the modern generation

due to the rapid development in the use of the internet and the technology linked with it. The customer self-ordering system, which is made possible by this, aids the customer in placing their own food orders. It can be described as a computerized system that college personnel and students use to place their own orders at the smart cafeteria . This is made feasible by the deployment of a payment system that accepts electronic payments. For staff and students, Google Pay or Phone Pay can be used to make the payment. Anyone (staff or student) can order food from the Sona smart cafeteria website, pay the price inside the website, and receive a special code for that order. After that, head to the canteen and buy the food by scanning the code. By using a computer system to connect each and every food ordering transaction rather than the data recorded on it, the system will become a crucial tool used by the canteen staff to update the food availability and the canteen to improve the management aspect. It can also increase productivity for the cafeteria, staff, and students by reducing human error or delivery, consuming less time, and offering clients high-quality service

Nowadays, ordering food is one of the most fundamental aspects of daily living. In the college canteen, students can buy their food by standing in line for a long time to pay the bill, and occasionally there are some billing problems due to human error. Students choose to use Swiggy and Zomato to order food while in college, however, this had an impact on smaller businesses like campus canteens. To get over these challenges, we developed the "SONA SMART CAFETERIA" website, which allows anyone to order food from the campus cafeteria from anywhere. It generates a pin or number for their orders after payment. We use HTML, CSS, PHP, and MYSQL to build websites and store data in databases. The fundamental components of websites around the world are HTML, CSS, and PHP, with CSS managing a page's look and PHP scripting its functionality. Students must have a mobile

device and access to the internet in order to submit orders. Staff in the canteen need a single system to update the food's availability and a scanner to scan the code/pin.

2. EXISTING SYSTEM

Students are given smart/rechargeable cards by the canteen management at many institutions. When they walk to the canteen and insert the card in the machine, the menu is displayed, and they can make their orders. However, the rechargeable card needs to be refilled on a weekly or monthly basis. However, via our website, students /staff can view the menu, make an order, and pay the bill without having to go to the cafeteria.

3. PROPOSED SYSTEM

The objective of the system will provide people with all the information about the foods available at the different canteens. And they can know about the special items at the canteen. At the same time, they can order the foods online and receive them at the canteen itself and payment can be done online. The application has modules that include updating the daily menu, ordering, the status of an order, payment system, and restriction of order counts

4. HTML IN WEB DEVELOPMENT

The predominant markup language for writings intended to be viewed using a web browser is HTML, or Hypertext Markup Language. The technologies JavaScript and Cascading Style Sheets (CSS) are two examples of that can be helpful.

Web browsers turn HTML documents into multimedia web pages by retrieving them from a web server or local storage. HTML originally came with design cues for the document and explains the semantics of the structure of a web page. The foundational elements of HTML pages are HTML components. Images and other items, including interactive forms, can be incorporated within the newly produced page

using HTML techniques. By specifying the structural semantics for text components including headings, paragraphs, lists, links, quotations, and other objects, HTML offers a system for producing ordered texts.

Document type declaration (DTD):An HTML document's beginning or very top often contains the. The browser is given the HTML version that was used to build the page.

Root element in HTML acts as the "main container" that houses all the other elements and is written beneath the DTD. The language of the HTML document can be specified. American English is used, for instance, on the website.The metadata for the page is found in the< head>, which is located between the <html >and <body>. They consist of The <title>or main topic of the webpage. Although distinct from the title tag in the body, it should still match.The <style> attribute specifies how elements should appear in the browser. This covers things like the body's background colour, text alignment, and headline's color.The resources linked to the HTML page are indicated by <link> . The base refers to the default URL.

The main body of the document is where the content is located and where the browser shows it to the user. It might consist of the The header includes the site name, logo, main navigation, and search box.
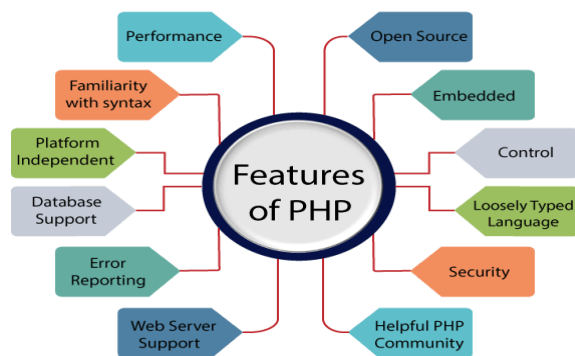
The major content of the article includes the title or heading, the content, the posting date, the author, and other details.Secondary navigation, copyright, social media links, and contact information are all provided in the footer.

5. PHP and Cascading Style Sheets

PHP is a server-side programming language that is incorporated in HTML. in its most basic form. PHP enables database interaction and dynamic content creation for web developers. The advantages of PHP's simplicity, speed, and

adaptability have helped it become a mainstay in the online development industry.

Figure 2: Features of PHP

Web pages are styled and laid up using CSS (Cascading Style Sheets), which can be used to change the font, colour, size, and spacing of your text, divide it into numerous columns, or add animations and other ornamental elements. This module gives you a moderate start on the road to CSS mastery by explaining the fundamentals of how it functions, what the syntax looks like, and how to use it to add styling to HTML.

The benefits of CSS are as follows:

• CSS is timesaving since you can write it once and reuse it across several HTML pages. Each HTML element has a style that you can choose and use on as many different Web sites as you like.

• Simple upkeep: All elements across all web pages will instantly update if you change the style, which is the only thing you need to do to make a worldwide change.

• Global web standards Attributes in HTML are currently being phased out in favor of CSS. Therefore, utilizing CSS in all HTML pages is a smart idea to ensure that they are compatible with upcoming browsers.

• Platform Independence The script offers reliable platform independence and is compatible with the newest browsers.
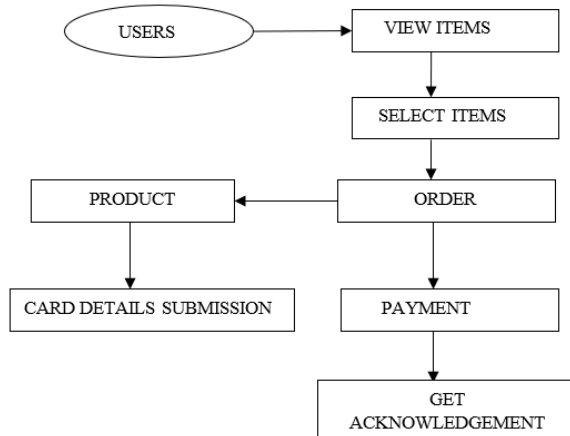
MYSQL

The company behind the most well-known Open-Source SQL database management system, MySQL, is called MySQL AB. Founded by MySQL developers, MySQL AB is a for-profit organization that bases its operations around the MySQL system of database management. A systematic collection of data is called a database. It might be anything, such as a straightforward grocery list, a photo gallery, or the enormous amount of data in a business network. Data included in a computer database must be added to, accessed, and processed using a Server of MYSQL. System of database management, whether used as standalone utilities or as a component of other programmes, play a crucial role in computing since computers are highly adept at processing vast volumes of data.

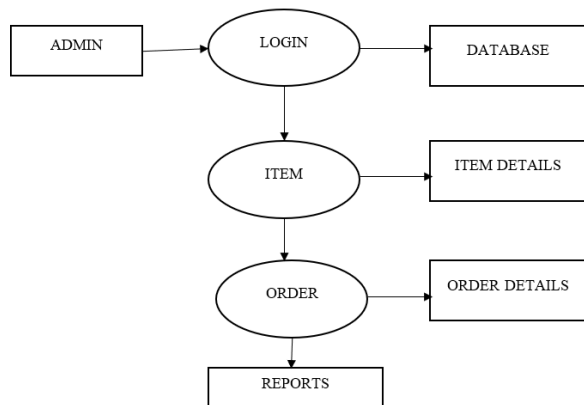**Figure 3. Growth of online food ordering**

6. SYSTEM DESIGN

The user must first log in using their ID on the login page before choosing from the various food options in the list and paying online or by COD. Obtain their payment acknowledgment as shown in fig.4.

Figure 4: User transactions

The admin can view order information, including payment and the number of food items, from the admin side which is stored in the database fig. 5

Figure 5: Admin Transactions

7. RESULT AND CONCLUSION

More customers have been drawn to company model to providing food that is ready to eat via a digital platform, whether by a web or apps, especially in venues like houses, apartments, and office buildings. Today, consumer appreciates the ease of buying and receiving food online. Everyone would agree that this business model's main draws are convenience and time savings. Additionally, people today enjoy eating at restaurant-style food in the comfort of their homes or places of employment due to their hectic lifestyles. It is a web-based application that allows students to place their orders at any location. This can reduce the time students have to wait in the queue to pay their bills. It can also help to reduce the amount of paper used in billing. This application assists the students to know the menu from their current location and avoiding the issue of making changes. It makes it simple for students to get their orders. Students can be able to give reviews for their food items. It improves small-scale industry business and digital transactions.

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