



RESTRAURANT DIGITAL MENU

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Abstract: Modern technology has had a huge impact on people's lives. Digital menus have become popular in interactive services as an end-to-end solution to life designed to help us work faster in less time. Digital menus are software programs that have a significant impact on changing the traditional diet and meet the changing needs and preferences of consumers.

Digital menus are not limited to helping user's complete tasks such as ordering food from restaurants by making quick changes to the menu, but they can also speed up the food ordering process by reducing the number of employees in the restaurant.

In this project, we will create a QR based menu. We can create a digital menu of quick changes and the food ordering process, and we are committed to modern technology that creates group (thinking), types and engaging answers. The project has achieved its goal of providing appropriate answers to the questions asked and resolving most of the complaints on the subject.

I. INTRODUCTION

In today's dynamic and fast-paced cooking environment, the restaurant industry has undergone a transformation by adopting the latest technology to improve customer experience and increase performance. One such technological advancement is the use of digital menus, which have become an integral part of modern restaurants. This project report explores the development and implementation of digital food for restaurants, which is an important step towards changing traditional eating habits and meeting the changing needs of customers.

Traditional menus, while timeless in their appeal, often fail to meet the needs of today's consumers who seek convenience, variety and convenience in their dining experiences. In response to this change, restaurants have created digital plans that will solve these problems and provide efficient and effective solutions to restaurant owners and customers.

This report will provide an in-depth look at the design, development and deployment of a digital restaurant, highlighting the functionality and advantages of the system. It will also see the impact of this innovation on customer satisfaction, order accuracy, performance management and sustainability.

The purpose of this project is multifaceted. Our goal is to provide restaurant owners and management with a deeper understanding of the benefits of digital menu implementation and the steps necessary for successful distribution. We also tried to evaluate the quality of digital menus in terms of improving the quality of food for restaurant operations and customers.

In the next part of this report, we will discuss the design and development process, design and main function of restaurant digital menu system.

We will also present research articles and studies to gather insights from restaurants and customers who have experienced this new solution.

Finally, the restaurant's digital menu project is a testament to the evolving relationship between technology and the restaurant industry. He realized that digital innovation not only improves customer experience but also operational efficiency, making it a valuable addition to any modern restaurant. As the culinary world continues to evolve, we believe this business report will provide insight for foodies, tech enthusiasts, and all food and digital transformation enthusiasts.

II. Literature review:

The integration of technology into the restaurant industry, especially in the form of menus, has become the focus of attention of researchers, restaurants and technology enthusiasts. Here, we provide an overview of existing literature and related activities in the digital restaurant menu industry, highlighting the progress, benefits, and challenges associated with this new way of eating.

Evolution of Restaurant Technology: The restaurant industry has adapted to the development of technology, and digital menus are at the forefront of this development. Researchers (Smith et al., 2018) analysed how the integration of technology, such as menus and mobile phones, has changed the way food is consumed ubiquitously. This change is based on the customer's need for convenience, personalization and communication.

Benefits of menus: Many studies have shown the benefits of using menus in stores. A study by the Restaurant Industry (2019) found that 64% of restaurant customers prefer menus because they offer attractive images, detailed descriptions, and interactive features. These improvements can increase order accuracy, customer satisfaction and revenue.

Interactive and engaging: Digital menus often provide interactive content such as recommendations based on customer preferences and upselling tips. Kim et al (2020) explores how these features can improve average check size and increase sales. Visual visualization and simple navigation help create a better eating experience.

Multilingual and accessibility solutions: In a multicultural environment, menus can be adapted to different languages. A study by Li and Guo (2017) demonstrated how multilingual digital menus can benefit customers and restaurant owners by eliminating language barriers and promoting effective access.

Environmental Sustainability: Environmental concerns have led some restaurants to adopt menu items. Scientists like Osterhage talk about reducing paper waste in menus and protecting the environment. (2019). This is in line with the development of sustainability in the food industry.

Challenges and Concerns: Although the menu has many advantages, there are also some challenges and concerns to consider. Another issue raised by Smith and Johnson (2016) is that human interaction while eating will disappear due to the increase in electricity use. The balance between technology and self-service is controversial.

Available data and related projects relate to the evolution of digital restaurants. They not only solve the limitations of menus, but also have many benefits such as improved user experience, multilingual accessibility, perimeter security, understanding and data paper resulting from sales. The Restaurant Digital Menu Project aims to contribute to this growth by developing a successful digital menu system that takes into account information from existing research, other studies and best practices, while also addressing related issues. by their implementation.

III. Methodology

The main technologies that are to be used in this project are mainly **HTML, CSS, JavaScript, Node.js, MongoDB, APIs, JavaScript Libraries (Qrious).**

FRONT-END TECHNOLOGIES:

HYPERTEXT MARKUP LANGUAGE(HTML)

CASCADING STYLE SHEET (CSS)

JAVASCRIPT

BACK-END TECHNOLOGIES: NODE.JS, MONGODB, APIS, JAVASCRIPT LIBRARIES



Fig : QR based Interactive Menu for Restaurant and its view

This system is restaurant independent. Any restaurant can use its service. Food ordering could increase efficiency of restaurants by saving time, reducing human errors and by providing higher quality customer service. With the combination of simple design and readily available communications technologies, it can be concluded that this system is an attractive solution.

IV. MODULES:

Welcome Screen: Welcome Screen welcomes the customer with a message and request for sign up.

Phone Authentication: Customer sign up need to add his/her mobile number for the authentication or the verification of the user.

QR Code Scan: This is use for scanning your native Restaurant QR Code from the scanning camera of your device.

Menu: Menu consists of list of Items with respectively prices.

Order: The restaurant will display message with your authenticated name and ask you for which table allocated you.

Restaurant Login: Once the registration is complete the restaurant admin will move to the login page which asks for user name and password.

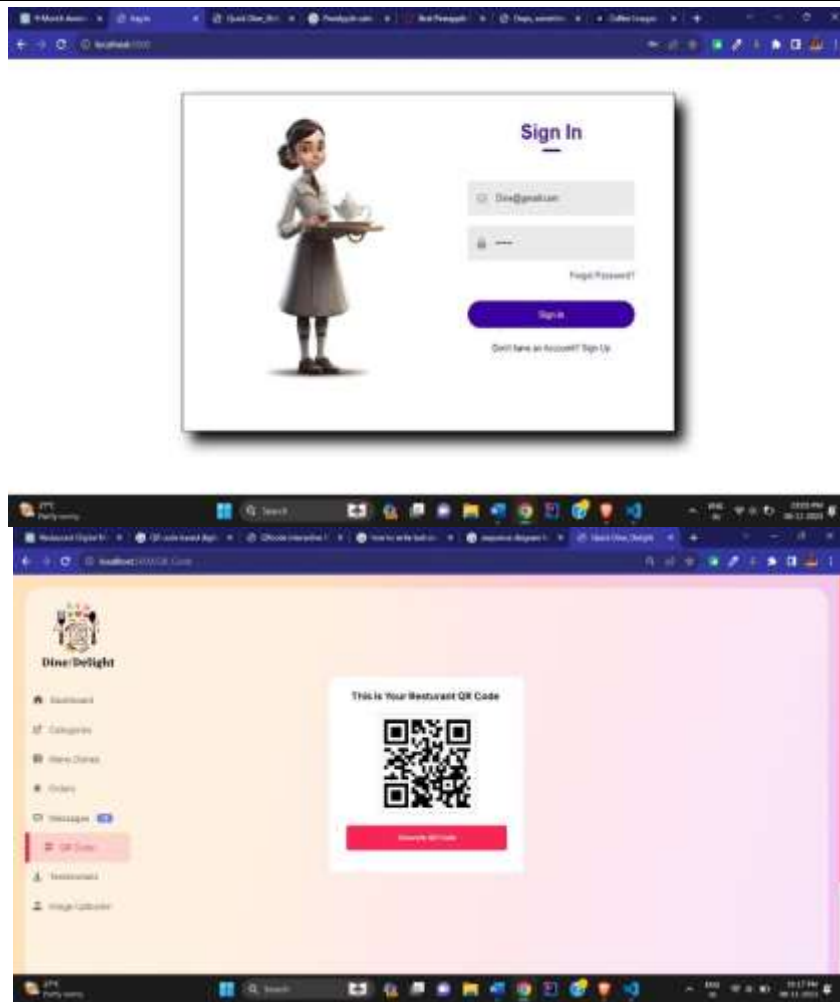


FIG: QR CODE SCANNER MODULE

The QR code module for a restaurant is a feature that enables the generation of QR codes specifically tailored for the establishment. Restaurants often use QR codes to streamline the customer experience. Each QR code generated corresponds to a unique link, typically directing patrons to the restaurant's menu, website, or online ordering platform. Customers can easily scan the QR code with their smartphones to access relevant information, facilitating contactless and efficient service. This module enhances convenience for both the restaurant staff and diners, promoting a seamless and tech-savvy dining experience.

V. CONCLUSION

Our project will reduce the human efforts, enhance paper less work and save time. There is chance of error while serving foods to the customers. By using proposed system there will no chance of errors and we can easily book table from home or from wherever you want. Customer will order the dishes using the bot according to customer requirement. The developed system will be very useful in saving time of customer. The Customer can get attended in more quick and efficient manner. The service becomes fast because of its digital nature. Our project is used for Fastly interacting with the customers. Also, it is much more user-friendly than other apps. Customer will experience in better way and efficiently. This system will also increase attraction of place for large range of customers. Implementing this system gives a cost-efficient opportunity to give the customers a personalized service experience, where they are in control choosing menu according to them— from dining to ordering to payment and feedback.

VI. REFERENCES:

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