

Digital Menu Card System

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Abstract: *There are numerous ways in which the customer experience can be improved in the hotel industry. One great way to do this is through a Digital Menu Card system. Instead of the current system of ordering food through printed menu cards, customers will be able to order their choice of meal through the scanner in the restaurants. This gives the customer complete freedom to browse through the menu and placing their order. Once order is sent from the customer then print of the order is received to the servant then this order will be sent to the kitchen for preparation. Reduce the need for printing the scanner will have a very simple and easy yet effective user interface for the customers. The menu can be easily updated and maintained by the restaurant staff as well unlike in the case of printed menu cards. The ordered items are also updated in the database and this will often avoid the misunderstanding between the customer and the waiter in case he gets served something different or eliminating false orders. Users will also be able to pay their bill through our platform using net banking. This will reduce time consumption in getting the bill ready and reduce the dependency of paying through cash or credit cards. This system will also help in restaurant owners to not worry about hiring staff and waiters and in certain cases them not showing up for work. This system will also help them keep an accurate record of the total earnings at the end of the day. This system has potential to solve issues and improve the experience of customers in hotels and restaurants.*

Keywords: Digital Menu Card.

I. INTRODUCTION

The proposed system goal is to order the food from outlets using this mobile communication. During the food order in hotels, users need to wait in a queue in the peak hours. If suppose, one waiter available in the hotel that leads to human error due to the greater number of users.

This can be avoided by Digital menu card system with

the help of wireless or mobile communication through the scanner. Now the customer can fix the order to one or more outlets just by sitting at their table by scanning the QR code. In the behind the scanner there is web application.

Once user scan the QR code then it will be redirected in web application and this web application shows different menus to the customer in the hotel. we provide the visualization of dishes in the menus as well as information of dishes for customer understanding purpose this will help the customer forchoosing or ordering a right dish.

This system is very easy and useful because this system removes the need of printing multiple menu cards.

Once the customer places the order then this order is goes to

servant. Servant received a print of customer's orders and then the order will be sent to the kitchen for preparation after completing kitchen work then order will be served to customers by the servant.

This Digital Menu Card System has been developed to override the problems prevailing in the manual ordering systems. This software eliminates and reduces the hardship faced in the menu card systems. Moreover, this is developed particularly for smooth and efficient functioning of the administration.

This application possibly reduces the error of serving wrong orders to the customers. No formal knowledge is required to use this software. It is user-friendly. The main objective of this application is an efficient management of details of Food item, cart, category, order, customer. It manages all the information securely and the project is totally built on the administrator's end.

II. LITERATURE REVIEW

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III. PROBLEM STATEMENT

Traditionally the method in which customers specify their desired menu to the waiter who takes the order on a paper personally, then takes the order to the kitchen department and then they supply the order to the customer. So, it was a time-consuming process.

It leads to wastage of paper and also it requires reprinting of all menu cards. Also, in many cases for small change to be made in menu card it is not convenient to print all menu cards again and again. Simply saying that the menu card once printed can't be changed. After some days, the menu card lost its worthy look and attractiveness.

restaurant is managing their work-flow and services by paper and manually which take time and high budget for management. busy day of people schedule and value of time become important day by day and the customer of this restaurant increase due to those busy day and schedule, manager is busy while recording each customer's activities manually with pen and set of books.

The proposed system helps in elimination or the reduction of the manual works and the reduction of money spent on the man power. The proposed system helps the administration to operate and manage their resources smoothly and efficiently.

IV. PROJECT OBJECTIVE

- Designing user friendly admin panel and user panel for menu ordering system (Web interface).
- Developing dish visualization by using real images.
- Designing Subscribe Module where the subscribed clients can be recorded.
- Increase efficiency detailed daily, monthly or annual records and reporting
- Improved customer experience: Digital menu cards offer a user-friendly interface that allows customers to easily navigate through the menu, view item details, and make selections based on their preferences. This interactive experience enhances customer satisfaction and engagement.
- Increased efficiency: Digital menu cards eliminate the need for physical menus, reducing printing costs and wastage. They also enable quick updates and modifications to menu items, prices, and descriptions, ensuring

accuracy and consistency. Additionally, digital menus can integrate with order management systems, allowing for seamless communication between front-of-house staff and the kitchen.

- Enhanced ordering process: With a digital menu card system, customers can place their orders directly from the device, eliminating the need for traditional pen-and-paper ordering or waiting for a server to take their order. This results in faster order processing and reduced wait times, leading to improved customer flow and table turnover
- Upselling and cross-selling opportunities: Digital menus can be designed to showcase featured items, daily specials, or promotions more effectively. They can also provide recommendations based on customer preferences, dietary restrictions, or past orders. These features help restaurants drive sales and increase average order value.
- Accessibility and customization: Digital menu card systems can accommodate different languages, dietary preferences, allergen information, and portion sizes. Customers can easily customize their orders based on their specific requirements, enhancing inclusivity and personalization.

V. PROJECT SCOPE

With the increasing need of automation in every field it becomes necessary to offer customer with an advance experience with satisfaction in restaurants.

In current formal dining environment, large number of restaurants offers static menu that is paper menu card to convey available food items and waiters delivers order to kitchen staff. There is major scope in enhancing visual experience by replacing paper menu card with digital scanner. To avoid delay order wireless communication can be used to replace waiter who manually deliver order to kitchen.

Currently due to increased literacy, awareness of advanced technology among people, they are crazy about latest technology and eager to automate their routine task.

So introducing new technology and approach in conventional digital menu card system will lead to improve experience as well as simplicity of customers.

- System Overview: Provide a high-level description of the digital menu card system, explaining its purpose, functionality, and how it will be accessed (e.g., mobile app, website).
- User Requirements: Identify the target users of the system (e.g., restaurant customers, staff) and outline their needs and expectations. This may include features such as browsing the menu, placing orders, customizing items, and making payments.
- Menu Management: Specify the requirements for managing the menu items within the system. This can involve creating, updating, and organizing menu categories, adding descriptions, prices, and images, and handling special offers or seasonal items.
- Ordering Process: Describe how the system will facilitate the ordering process. This may include allowing users to select items, specify quantities, add special instructions, and view their order summary before submission.
- Customization and Personalization: If desired, outline any requirements for allowing customers to customize menu items according to their preferences (e.g., choosing toppings, specifying dietary restrictions).
- Integration with POS (Point of Sale) System: If the digital menu card system needs to integrate with an existing POS system, outline the integration requirements, such as synchronizing orders, updating inventory, and generating reports.
- Payment Processing: Specify the desired payment options, such as credit/debit cards, mobile wallets, or cash on delivery, and describe any integration requirements with payment gateways or third-party services.
- User Experience and Interface Design: Outline the desired user interface (UI) and user experience (UX) design guidelines, including considerations for easy navigation, attractive presentation of menu items, and intuitive ordering process.

- Accessibility and Localization: If applicable, include requirements for accessibility features (e.g., support for screen readers, font size adjustment) and localization options (e.g., multilingual support, currency and unit conversions).
- Reporting and Analytics: Specify any reporting or analytics requirements, such as generating sales reports, tracking popular menu items, or capturing user feedback.
- Implementation Timeline: Provide an estimated timeline for the project, including key milestones and deliverables.

VI. SYSTEM DESIGN

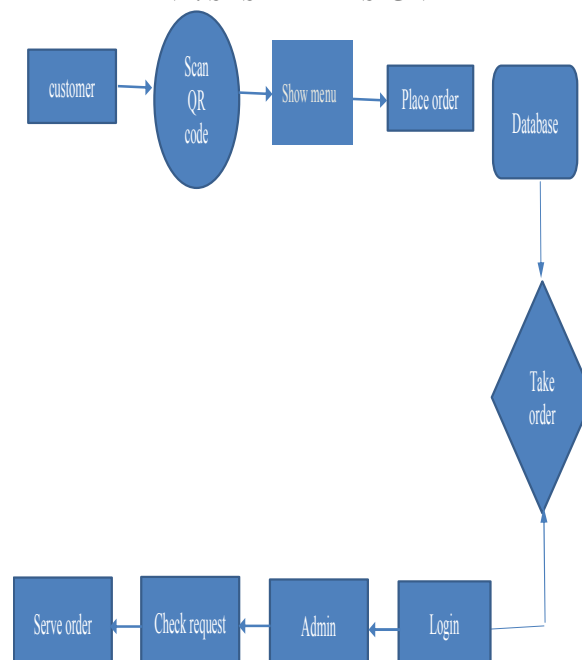


Fig shows the Data Flow Diagram of Digital Menu Card System

VII. CONCLUSION

In this proposed system we have a QR Code in the menu card in each table of the restaurant. For more details about the food stuff one can just scan the QR Code for the details. After the QR Code scanning the customer gets into our website page displaying the menu items and their respective price. In this page one can see the entire detail about the food stuff selected. The existing system of Hotel Management is manual. All the daily routines are carried out manually and the records are maintained in the record books or the registers. The introduction of our project will eliminate a good amount of manual work. In this proposed restaurant menu card system, displays the food stuffs available there and their respective prices. Along with the displaying of food prices, the customer can also view the making of the foodstuffs. Not only the prices are displayed, but also the making of each food item is made available to the customers. In addition to these features we have an ordering system. Using this ordering system the customer can order their preferences without waiting for the waiters. This concept is satisfactory for both the hotel administration and the customer. The traditional menu cards in the restaurants are paper based. Waiters use paper to write the order of customers. The records are stored on paper. As with anything paper based, it is so easy for things to get damaged by Coffee stains etc, or paper being lost due to fire or accidents or just generally lost. There is wastage of time, money, and paper.

As traditional menu cards are paper based, any changes that need to be made in the menu card will lead to wastage. As it will require reprinting of all the menu cards. Also, for small changes it is not possible to print all the menu cards again and again. There is no power to dynamically make any changes in the menu card.

To access a particular record from the stack of papers is not efficient. From the customer's point of view, this system is time consuming. As, one has to wait until the waiter comes to take the order, one has to call waiter number of times till

he notices it, there can be misinterpretation while the waiter is writing your order on paper, and it might be possible that you are served with a wrong dish.

In future we can add a payment option in our project. and take a bill and pay bills.

There have been improvements in the management of restaurants. Each waiter is assigned a group of tables, after taking orders for a table the waiters enter the orders (a list of dishes and drinks ordered by the customer) into the system at the PC. The waiter usually knows of all dishes that are unavailable before taking an order. The system must confirm the availability of dishes. Should an item not be available the system must allow to change or even delete a customer's order.

VIII. FUTURE ENHANCEMENT

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Drinks and desert orders may be taken separately. Kitchen staff sees the dish orders on their screen, prepare them in an appropriate sequence and confirm preparation to the system when complete. When a waiter sees the completion indications on his terminal he collects the items and takes them to the table. At the end of the meal the waiter will have the system print a bill, and he will enter the details of payment for it.

The system keeps track of the numbers of customers served by each waiter and the amount of money taken by each waiter. Making dynamic changes in the menu card, to get rid away from the heap of paper based records, to assure the customer that he'll be served with what he has ordered, to get the customer feedback on record.

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