

Digital Restaurent

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Abstract

A Restaurant is a gathering place for many people to taste the favorite foods are in there. The restaurant which visited many people sure will increase the attraction of them to visit it. Of course, the owner will get more benefit. However, what happens when a restaurant is famous still uses a service without technology, such as making orders using pens and paper, inspects the food stocks manually, and delivering orders to the kitchen using manpower, and more. Therefore, it designed a system that can accelerate the ordering and processing food in the restaurant. This system replaces the use of pen and paper with digital devices such as tablets/smart phones based on Android. Not only that, order data can be sent through a wireless network which connects tablets/smart phones with the kitchen's computer. It can be read by kitcheners and showed directly on the LCD screen. By the application is expected to reduce the level of error in the processing of the consumer's order.

Introduction

An important area of the hospitality industry are restaurants. This industry sector has not only experienced severe consequences of the recent lockdowns, but it has also seen the rise of digital technologies. As known from other industries, the digital transformation impacts products, processes and business models alike. Starting from the classical distinction of a restaurant's front-and back-of-the-house processes, this paper presents an overview on current developments in the restaurant industry and based on an analysis of current digital services, it derives some implications for future directions. Among the observations are that restaurants need to cover more touch points, provide more individualized offerings and strive for more automation as well as integration of their systems. In last few decades, there is rapid increase in the development. Traditional method of ordering the food through waiters is outdated. So, everything is changed to digital nowadays. Food can be order by the application or the device provided. The GUI is user friendly so that everyone can easily use without any confusions. The main goal is to attract the customers and it adds efficiency of maintaining records of ordering and billing system. This will reduce human labor. May be waiter can make a mistake while taking orders from the customers. And chances of errors are more. The system administrator will have the system rights to add or change the food items, or can change the price of food items anytime. Customers order the food according to their choice and the payment amount will be displayed on the screen. So, payment can be made by cash, credit card or debit card. It will avoid waiting of the waiter to take the orders. It can directly be ordered without wasting of the time. Once customers have their food, one or two waiters will be allocated according to their requirement which will clean the table.

Literature Review

Akash Patil, Rinkesh Kalani, Bhavesh Patil, Sachin Shinde, Prof. S. M. Shedole, “Smart Restaurant System Using Android”)

In this paper, it describes how mobile menu system was developed in order to provide a generic, easy to use and platform independent menu system for VR applications. The online survey showed that albeit most people are satisfied with paper-based menus. The communication between customers and servers are through RF module.

Shraddha G. Malviya, Nikita D. Deshpande, Shivani G. Mahalle, Prof. Sharvari Tantarpale, “Smart restaurant Ordering System”

In this paper, person can have the facility to search service by location that is home location of the person is detected with GPS and according to selected option location of nearby service get searched. As this system using GPS and Geo-hashing algorithm so, it is costly. Here, user must give input in terms of rupees only as this system also provides search by cost. But it means that only Indian user can access this system.

Swapna (A), M. Firdouse Ali Khan, “Design & Implementation of Ordering System for Restaurants”

Customer can also book a table in advance before coming for dinner/lunch and can know whether a table is available or not.

Krushna A. Patil, Aakanksha P. Gawande, “Zigbee Based Hotel Menu Card Ordering System”

To facilitate more intuitive interface and customization for the restaurant owner to update the menu content on the customer devices. It enables a real time feedback between the restaurant owner and customer on the order status. The system requires laptop for the restaurant owner.

Meghana Nandre, Divya Patil, Kalyani Patil, J.R. Suryvanshi, “IOT based Restaurant Automation System “

Use a cloud based server for storing the database which makes it inexpensive and also secured. Run the app on android based tablet and not on an iOS based tablet which is more expensive alternative.

System Analysis**Existing System:**

Restaurant menus are an important communication tool that affects customer behavior. Just like a business card, they introduce the restaurant to the customer. The design of the menu is complementary to the décor of the place, its service, food quality and price range. It provides cost control with marketing and sales activities. The physical features of the menu give the

customer subliminal messages about the business.

Proposed System:

We will develop a mobile app, this application will provide a qr code to the customers. After scanning that qr code they can be able to see the menu and can order the food. Restaurant owner can update the menu daily with prices

Methodology

AGILE methodology AGILE methodology is a practice that promotes continuous iteration of development and testing throughout the software development lifecycle of the project. The agile software development emphasizes on four core values.

1. Individual and team interactions over processes and tools
2. Working software over comprehensive documentation
3. Customer collaboration over contract negotiation
4. Responding to change over following a plan

Benefits of Using Agile methodology

1. Streamlined process overhead
2. Improved quality
3. Improved predictability through better risk management
4. Improved productivity profile

System Requirements

Features that are needed in the application for customer are as follows:

New Order:

New Order is the main feature of the customer's application that will be used to place orders.

Order Status:

This feature is used to show the order status that includes order placed, order received etc.

Order History:

Customer's order history is shown by this feature.

Features that are required in the website for admin are:

Menu:

Menu list of restaurant is shown by this feature. Through this feature admin can also reach menu directly.

Add Menu

Admin can add additional menu regularly if needed by this feature.

Order Status:

Order Status is the feature which shows the status of the order that has been completed by the restaurant.

Action:

Order is active or finished is indicated by this feature.

Checkout:

For generating bill admin will use this feature to generate the total bill.

System Implementation

The implementation of the system application is done in Android, HTML, Php and the datasets are stored in MySQL database. We have developed a web-based application and based on it we have developed a hybrid Android application using Android Studio. The hardware required for our application includes the Android smart phone and a desktop or a laptop with browser and internet connection. Implementation of our system consists of a real time order placing

Conclusion

In this digital world each and every field is undergoing a dramatic change due to Information technology. Human labor can be reduced. We have presented digitally food ordering system. System is effective and convenient. Food ordering application is presented with features of Wireless ordering system. The application has the good GUI which will bring more attention to the customers. With private login system, customers can view and make order and receive updates in real-time from the device itself.

References

[1] Kirti Bhandge, Tejas Shinde, Dheeraj Ingale, Neeraj Solanki, Reshma Totare , “A Proposed System for Touchpad Based Food Ordering System Using Android Application”, ”International Journal of Advanced Research in Computer Science & Technology(IJARSCST 2015), Vol.3 Issue.1(JanMar,2015)”.

[2] Priya Jadhav, Priyanka Teli, Snehal Korade, Varsha Chavan, “Implementing Digital

Restaurants and InterRestaurant Navigation Using Smart Phones”, “International Journal of Computer Science & Mobile Computing, Vol.4 Issue.2, Feb-2015”.

[3] Adithya R., Abhishek Singh, Salma Pathan, Vaishnav Kanade, “Online Food Ordering System”, “International Journal of Computer Applications Vol.180 Issue.6, Dec2017”.

[4] Sushmita Sarkar, Resham Shinde, Priyanka Thakare, Neha Dhomne, KetkiBhakare, “Integration of Touch Technology in Restaurants using Android”, “International Journal of Computer Science & Mobile Computing, Vol.3 Issue.2, Feb-2014”.

[5] Noor AzahSamsudin, Shamsul Kamal Ahmad Khalid, MohdFikry Akmal MohdKohar, ZulkifliSenin, MohdNor, “A Customizable Wireless Food Ordering System withRealtime Customer Feedback”, “2011 IEEE Symposium on Wireless Technology and Applications (ISWTA), September 25- 28,2011, Langkawi, Malaysia”

[6] Ashwini Bankar, Mamta Mahajan, “Design of Intelligent Restaurant with a Touch Screen Based Menu Ordering System”, “IOSR Journal of Electrical and Electronics Engineering (IOSR-JEEE), Vol.10 Issue.3, May-June 2015”.

[7] Tuhin Ghosh, Shubham Bhoir, Prashant Patel, Nikhil Mehta, Amruta Mhatre, “Smart Restaurant”, “International Journal of Industrial Electronics and Electrical Engineering, Vol.3 Issue.11, Nov-2015”.