Project Synopsis

Restaurant Table Reservation System

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Abstract

The Restaurant presently runs a manual reservation system and as customers are desirous tofind a handy application for reservation of tables or any other services to avoid physical walkingto the hotel or contacting by call or reserving through a middle man. for table reservation andonline booking system. Restaurant table reservation system is an android application that canaffectively improve their restaurant table reservation system in order to provide direct access ofevery user to the management. It has given the benefits of effective booking corridor or to holdtheir accessible table with holding up through an android application. Restaurant tablereservation involved the use of two applications associated with each other, and involved the useof five modules which are the reservation, the order takes away your order, gallery and get intouch with us. The major goal of this task was to enable the administrative representative oforganization of a restaurant to deal directly with the clients. In addition, it can place client&requests to discover free tables as indicated by their own need of particular required number ofseats in his choice area. This application can assist to avoid holding up time spend at therestaurant. We utilized database to accomplish current task to deal with the historical backdropof the Restaurant reservation and client's records. Client can see the history and also like wisedelete, share and copy data. The administrator can keep up the time-table of ordering items andfoods. Restaurant table reservation system can enhance the popularity of restaurant among theirintended customers coupled with speedy and direct service availabilities.

1.Introduction

Long wait time for tables can turn the customers away orcan create revulsion towards the restaurant, many of people even argue that the restaurant makes them wait unnecessarily. "Restaurant Table Reservation System" give a proper solution to the problem by allowingthem to pre-book the table online. While it is appropriate to give customer a chance to look atthe menu and decide their order, but it is not ideal if they feellike they are being ignored when the staff is too busy to attend them. This creates a dislike towards the restaurant. Ourproposed application will reduce the load of the staff to attendthem by taking order online at the time of booking. Areservation is a promise between the diner and the restaurant.Sometime customer shows up late for their table and therestaurant cancel their reservation, the customer has to waitfor another table to available even after they have reserved. "Restaurant Table Reservation System" will inform the restaurant if there is a change or delayin the reservation from the customer side.

1. **Literature Review**

1)https://ieeexplore.ieee.org/abstract/document/5513147-An Automated Food Ordering System using Interactive User Interface approach was created to improve the current food ordering system. A computer screen will be placed on each table for customers to make their order. Order will be sent to the server in the kitchen. Food will be delivered to customers using a robot controlled via wireless transmitter.

2) https://ieeexplore.ieee.org/document/7058749-To manage the crowd and eliminate the problem of waiting time, we have designed and proposed an application for the customer to pre-book the table at specific time. The proposed system also provides additional optional features for customer to order food from their home through the application by just paying a booking amount to save their valuable time. To satisfy and enhance the experience of the customer we have predict time using intelligent algorithm for managing table for customers. It will not only help the customer but also help the restaurant to manage and serves customer easily.

3) https://ieeexplore.ieee.org/document/5288330-This paper presents an integration of wireless communication technologies and web services technologies to realize a wireless food ordering system. In this system, it implements wired and wireless data access to the servers and food ordering functions through both desktop PCs and mobile devices such as PDAs over a wired/wireless integrated local area network. To sure the security of the system, the secure web service architecture and some security strategies to ensure mobile communication security are discussed. Web services-based wireless applications on mobile devices provide a means of convenience, improving efficiency and accuracy for restaurants by saving time, reducing human errors, etc.

2. **Problem Statement**

Restaurant is a kind of business that serves people all over world with readymade food. Currently this industry is going on with lot of flare the main problem with today's Restaurant Management is the waiting problem. As sometimes so happens that sometimes their customers are more than hotel's capacity so the customer has to wait. So, it can become Tedious and time is wasted. And for the hotel to keep all the reservation in the register were not easy as it was time consuming and the hotel was not able to keep record. Restaurant manage their business by manual especially take customer reservation.

3. **Objectives**

The key objective of current project was to allow the management administration and employees of a restaurant to grip the customers to place their orders and to find free tables according to their required number of seats. Restaurant table reservation system app will enable the user to access and

manage the arrangements of table and food. The general objective of Restaurant table reservation system was to build up a reservation system for table reservation to assist workers with solving basic issues with their manual reservation system for example utilization of time, cash and vulnerability. And for the customer to Pre-Book the table

4. Scope

The scope of this project is to build an application for reserving tables for restaurants. Through restaurant reservation system online, users can be allowed to take reservations quickly and easily. The proposed system also provides additional optional features for customer to reserve which food to eat from home and reserve table through the application by just paying a booking amount to save their valuable time. It will not only help the customer but also help the restaurant to manage and serves customer easily. The manager doesn't have to maintain a guest book anymore. The manager can see who is coming and at what time. In that they are aware about which tables have been booked. The system will also notify the customer if there is a delay for their reservation by the restaurant, it will help the customer to re-schedule their reservation. The sole objective of the proposed system is to eliminate the wait time of the customer, enhance the customer eating experience and manage the large number of customers by the restaurant. Restaurant table reservation system is an android application That can affectively improve their restaurant table reservation system in order to provide direct access of every user to the management. This application can assist to avoid holding up time spend at the restaurant.

5. Benefits for environment

As the project mentioned above is mainly an app so it does not require any work in written format on paper. So, which is very beneficial for environment as all data is saved in the app so there will be no need of paper which means less usage of paper. So, there will be less cutting of trees. As this project requires less energy so the consumption of electricity is reduced

6. Benefits for society

The benefit for society of proposed system is given as followings: -
1) Rights are reserved at customer's fingertips.
2) During festive seasons, tables get booked shortly, in such cases clients can make advance booking for utilization of ordering framework.
3) It saves client's time looking out for restaurants.
4) It saves business assets and costs.
5) It discourages the involvement of third party or a middle man by providing a direct interface of customers to their service providers. It avoids to customers

to pay heavy commission.

7. Applications

The Restaurant Reservation is used to people have different mindset, sometimes they don't want to miss their favourite restaurant on their very special day or occasion so they like to book a table for the decided number of people. It significantly time saving and gives one a sense of relaxation. Sometimes we have an important meeting or a business gathering, which we want to keep in any exclusive and peaceful ambiance so we book for a suitable restaurant and make the arrangements according to the event. This controls flow of information for owner and Manager and enhance better table management which results an overall improved Management of the Restaurant. That guests who leave happy from the restaurant will leave a pleasant feedback and so would be their word of mouth, so it's an important aspect for a successful business planning. With the help of such booking systems designed for our assistance, one can easily check the availability instead of calling to the respective restaurant and ask them to check. Also, if any kind of change is made, restaurant is responsible to informyou, so you don't have to track for Operating Hours, Location, and Menu and much more, everything will be taken care of by the restaurant itself.

8. Technology stack

The project mentioned above uses android smartphones. Android Studio is going to be used with IDE for the application with its Android SDK including debugger and libraries. The Application developed for this project will be programmed with a. Backend Microsoft SQL Server, Android Studio. It Would have hardware requirement of Processor – i5, Hard Disk – 5 GB, Memory – 1GB RAM, Android Phone with Kit Kat and higher. As it is a prediction project, we can use data mining so we can predict in case if their seats are full but if there are any chance of having vacant seat.

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