

Dining and Lodge Booking System

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Abstract—With rapid increase in the use of internet, the desire of people to use internet to find various kind of services and information has been increased. The total number of restaurants and restaurant-goers is increasing. This has paved the way to the growth of hospitality industry. The Dining and Lodge Booking System (DLBS) aims to a remote table and lodge booking system, through which one can book table before visiting a restaurant, book a lodge and also make payment. This system consists of two functions within itself. First is for the customer who can book table or lodge and place orders. Second is for the manager of that restaurant in order to keep track of all the booking details. We have made the menus available at site of restaurant. This helps the customer while placing order through menus. This system increases quality and speed of service. Implementing this system gives a cost-efficient opportunity to customers a personalized service experience. The customer has option of selecting their choice for table or lodge while booking.

Index Terms— Reservation, Dining, Lodging, Token.

I. INTRODUCTION

A restaurant table reservation and lodge booking system is rare, because of inconsistent flow of customers and decentralized reservation systems. To make table reservation, one has to either call the restaurant or book table in person before time. Restaurants have traditionally used similar techniques for processing customer requests. Table reservations are created by calling the restaurant and speaking to hostess. If a customer arrives at the restaurant without making any prior reservation and no tables are available, the hostess places the customer on a waiting list. Traditional techniques, however, do have their shortcomings. For instance, ordering is entirely depends upon the waiter's availability. A busy waitress may not get around to a customer who is ready to order for five or ten minutes.

Other shortcomings include the management of the wait list. During periods of high activity, a hostess may face some problems in managing the wait list given the number of reservation requests over the phone and in person. A person will spend lot of time in waiting in a queue or finding a restaurant on weekend. Thus, we need to improve techniques for executing restaurant orders and reservations.

Such problem can be solved by using a Table and Lodge booking system which is a convenient way to save the time. With this table reservation application you can create a customized booking process and let people book a table or lodge online, manage restaurant availability and reservations. DLBS is a better idea with respect to following perspectives: hours of operation, consistency, cost, customer convenience, restaurant control, and record-keeping accuracy. DLBS is able to take a large number of reservations at the same time, which is especially helpful at busy times. The right type of reservation system can result into better cost efficiency for restaurants due to reduced labor cost.[6]

II. LITERATURE SURVEY

Online Reservation Systems (ORS) entered the market in the late 1990s. The acceptance and progress have attributed to dramatic growth in the last twenty years. Generally speaking, Dining and Lodge booking systems can be classified into two categories: Telephone Reservation System (TRS) and Online Reservation System (ORS). TRS is not the better idea according to hours of operation required, consistency, cost, customer convenience and restaurant control.

About two-thirds (65%) of respondents who had not made an online reservation wanted to talk to someone to make their reservation, for any of several reasons. One possible way to maintain personal contact but keep costs under control would be to consider using a remote call center to take the calls. Outsourcing reservations can reduce the workload on hosts and hostesses during busy periods, prevent interruptions, and allow the staff to instead concentrate on delivering better customer service. Moreover, a call center can be available around the clock, unlike the restaurant staff. If managed appropriately, outsourced reservations may also provide a more consistent customer experience while making it easier for customers to make a reservation. At the same time, operators should make customers aware of their online reservations capabilities and encourage customer trial. Once customers try online reservations, they are more likely to view them as useful.^[3]

In the past five years, there have been tremendous influxes of customers/guests patronizing restaurants worldwide especially in the developed country. This has posed huge challenges on restaurant management. This has made difficult for the customer service providers to cope with the influx of customer orders using the existing traditional system. On the other hand, customers/guests are tired of waiting on the queue before the service is provided. "Restaurant Management finding it elusive to minimize the waiting time before a customer is served".^[2] There is no such application in use today that enables customers to book tables of their choice, see menu and also make payments.

III. PROPOSED SYSTEM

3.1 Dining and Lodge Booking System

Dining and Lodge Booking System (DLBS) can boost the demand for seats in a restaurant for Dining and for Lodging. The DLBS System allows people to book table for dining as well as to book a room in lodge in a restaurant at anytime, anywhere. It will enhance the rate of customer ordering, attracts more customers/guest, effectiveness and efficiency of the day-to-day running of business transactions. The System provides the following advantages:

A. Table and Lodge Booking:

The system will allow user to book a table of his choice in advance. This will allow the customers to browse the images of the restaurant they wish and book a table or Lodge.

B. Attractive Profile:

There are images of location of every lodge and table which will make the view of customers more clear about how the Lodge or Dining table will look like exactly.

C. Time Management:

As people spend lot of time in restaurants by waiting for a table to be occupied. The DLBS provides direct booking of the table without wasting a time as he/she books earlier.

D. Offers for Customer:

The Restaurant owner can post various offers on their respective restaurant. This will help the customer as well as the restaurant owners.

E. Multiple Vendors:

We are providing the facility where multiple vendors can add the details of their restaurants which can be seen by the user.

F. Geolocation:

More and more services around us focus on where we physically are situated at the moment, and how we can be assisted in the best fashion depending on that. We are using Geolocation, i.e. finding out where someone is located. Firefox 3.5+, Chrome Beta supports for this feature.^[2]

G. Availability:

Availability is another criterion influencing the restaurants' decision of which DLBS to choose. Through DLBS a bigger number of restaurants and free tables can be checked simultaneously. This however, applies mainly to markets with a big number of restaurants and visitors. Another important element of availability is that the systems are available at any time and therefore are not depending on the working hours of the restaurant.

Compared to traditional telephone reservation systems, online reservation systems are different in many ways. With rapid increase in the use of internet, the desire of people to use internet to get information and services has been increasing. As the total number of restaurants and restaurant-goers has been increasing, there is much scope for the enhancement of the hospitality industry. The Dining and Lodge Booking System (DLBS) aims to a remote table and lodge booking system, through which one can book table before visiting a restaurant, book a lodge and also make payment. This system consists of two functions within itself. First is for the customer who can book table and place orders. Second is for the manager of that restaurant in order to keep track of all the booking details. We have made use of a recommendation engine that helps the customer while placing order through menus. This system increases quality and speed of service. Implementing this system gives a cost-efficient opportunity to customers a personalized service experience. The customer has option of selecting their choice for table or lodge booking.

DLBS is a Client-Server Based Application for Table Reservation and Lodge Booking in restaurants where server consists of all the information about restaurants and all the information about tables and rooms which are available in the relevant restaurants. In this application client will request to book a table or lodge in a restaurant. We will be storing the information about restaurant such as restaurant name, owner of the restaurant, how many tables are available in that restaurant and which kind of accommodation the restaurant is providing to us like a General, AC conditioner and family sections for dining. And the kind of rooms available in the restaurants such as queen bed, single bed, single bed in lounge, lounge with TV, sofa, King Bed in Lounge.

The new user can know the process through the demo procedure available on the website. This system also allows planning events like Corporate party, Birthday, Anniversary, Kitty party, Naming ceremony or other function. The user needs to enter the details according to the function and his budget, and relevant restaurants are shown to the user as per his request. Perceived customer control can be enhanced by giving visible assurances that the customer's reservation will be accurate and making it easy for customers to change or cancel their reservation.

3.2 Detailed Design

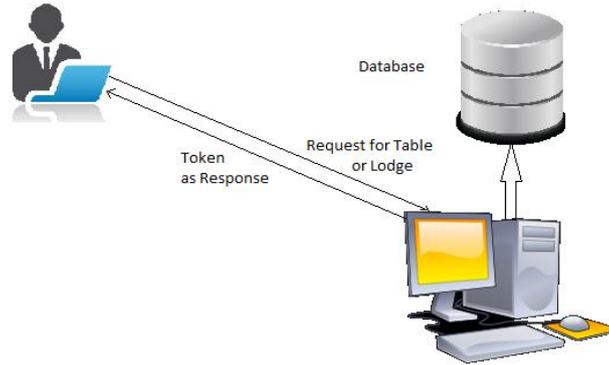


Fig 1: Detailed Architecture Diagram

When customer send a request to server for booking table or lodge in a restaurant then the customer details are stored into the database and retrieved from database as he moves and the user sessions are automatically maintained based on the details and fetched dynamically. We will generate a Token for client containing a unique id which will make easy to find the booking available either for table or lodge. The token will also contain date and time. The database is designed to store the data. When two customers request for a table in a same restaurant and at the same time then the request is going to process like First Come First Serve basis. At client side there will be an web application. When tables are not available in restaurant and customer wants to book a table or room, then the system will add the client into waiting list and a kind of notification or mail is sent to the client to inform about unavailability of the requirement. So the customer can know whether the service is available or not. If unavailable, he/she can try later or can go with other restaurants.

This application will help the restaurants to keep a high demand of its customers, because they don't know how crowded the restaurant will be. As this application is device independent i.e. anyone can use this application either by smart phones, tablets or personal computers to reserve the table for dining or to book the room in a lodge.

3.3 Procedure of DLBS

The booking process for table or lodge consists of 4 simple steps:

A. Stay Preferences

In the first step the customer enters his/her stay preferences. The stay preferences include the location, the date and time, the number of people for table booking and the arrival date (check in), the departure date (check out), the number of rooms and the number of guests per room etc for the lodge.

B. Rates & Availability

Step 2 displays the list of hotels where dining table for the relevant date and time is available and hotel rooms, descriptions and photos available as per the customer needs for lodge booking. Also the room charges and the room availability is displayed.

C. Guest Information

Once the customer has selected the desired table or room, he/she is led to the third step of the reservation where the personal information entered, phone number, address, email and any additional notes. At this point, the hotel's pricing and cancellation policies are depicted.

D. Reservation Completion

The fourth and last step displays a summary of the customer's preferences. At this point, the Token is sent to the customer. The token contains unique id and the table number.

IV. RESULTS

The Dining and Lodge Booking System is a web application. The application hence doesn't require any specific hardware needs to run. It can be available through any web browser.

The Figure 2 shows the Hotel Master page of our application in this the manager of the restaurant adds the restaurant details such as the location of restaurant, services provided, number of rooms available in the restaurant, number of tables available etc. This all information is stored in the database and fetched from the database when queried by the customer.

Hotel Management Admin

Home
Category Master
SubCategory Master
Hotel Master
Menu Master
About Us
Area Master

OPERATIONS
List HotelMaster
Manage HotelMaster

Create HotelMaster

Fields with * are required

Hotel Name *

State *

-----SELECT-----

District *

-----SELECT-----

Taluka *

-----SELECT-----

Contact *

Email *

Speciality *

Img *

Create

Fig 2: Master Page for Vendor

CONCLUSION

DLBS has solution which is very useful to the user for booking the table as well as lodge in a restaurant. Our website can be used in multiple platforms without any need of other platform services. Still development phase of our project is going on and we will take few more days to complete the work. This web application will help the customer for booking the table or lodge without any waiting in a queue for long time.

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