

Restaurant management system

Hariprasath V, Jagadheesh B, Hemalatha J

Guide: Ms. Kirubadevi AP/IT

Department Of Information Technology

Bachelor Of Technology

Sri Shakthi Institute of Engineering and Technology

(Autonomous)

Coimbatore 641062

ABSTRACT:

The Management System for a Restaurant is a web-based application. The main aim is to provide better communication between clients and restaurant owners. By using this application, the user can reserve the table for their dine. This application will reduce all the manual processes of the customer and also the restaurant managers. There are two main actors in this application: Restaurant manager and User. The admin will create all menus with their corresponding price lists. Also, the admin will be able to view statistical reports for foods. Restaurant managers will receive orders from customers. Users/Customers can place orders using this application and they will be able to view availability of the tables for reservation. Each user must register with the system; after logging in only, they are able to perform operations. unique login pages are provided for logging into the system. To develop this system, we use HTML, CSS, JavaScript, and bootstrap for the front end, MySQL database and PHP as the back end.

INTRODUCTION:

This Online restaurant table Reservation System project aims at providing the user to reserve table at restaurant online. The system shall take the start and end dates from the user and check for availability of tables. It shall check for the number of guests and reserve the table for the user. This is a simple user interface which displays the information about the restaurant, its contact address and the availabilities in restaurant. This tool shall enable the user to check for information regarding the table reservation to have a good dine experience. It helps the user to make payments online safe and securely. A reservation system also helps a restaurant better plan for food and supply needs, which can help reduce waste and save money. As well, a reservation system can help a restaurant track customer preferences and special requests, which can improve the overall dining experience for guests. A field of a restaurant management as well as a wide range of affiliated topics such as: Accounting, administration, good image among the people, finance, information systems,

human resource management, strategy to attract the customers, marketing, revenue management, sales, change management. The cost and quality of restaurant are usually indicative of the range and type of services available. Due to the drastic increase in craze for food items among the people during the last decades of the 20th century, standards, especially those of smaller establishments of the restaurant, have improved considerably. Restaurant are independently assessed in traditional systems and the facilities available in the restaurant.

APPROACH:

The main concept is that we are going to build a website that helps customers to book their seats to take their food safely and maintain hygiene. There will be a home page and queries page will be available to send a feedback or any queries about the restaurant or about the dine to the restaurant manager/owner. In about page details about the restaurant as well as the social media links also available to know more about the restaurant.

Menu page is also available to preorder the food items .In the menu page add to cart option is available as the customer can preorder the foods along with the reservation. customers can order the food in sufficient quantity. Reservations also help restaurants control costs by letting them know how many people are going to show up. we can't control what people order but knowing how many people will be dining on a particular location gives us a better idea of how much food to order to avoid the wastage of food. You don't want to buy 200 chicken pieces if only 150 people are on the books. So we build a webpage for a particular restaurant that will take necessary details to book your seats to have a peaceful dine. This is important to take your food safely and maintain hygiene. We have created this by using HTML, CSS, PHP. After filling all the necessary details to book their table a confirmation message will be generated.

A reservation can either be accepted or avoided or turned away based on the availability of tables in the day if it is available will be updated through the email or SMS. An acceptance would lead the receptionist into the confirmation phase, while a denial or turn away could cause a series of other options to be exercised like for example showing other timings of the availability of tables. The customer have to pay the cost for food in advance. After the confirmation the admin will check for the availabilities of the tables in the restaurant and then update it through the email to the customer. A email will be sent to the customer before 1-2 hours of their arrival and it consist of table number ,cancel link and proceed link. If the customer want to cancel the order they can cancel it by just clicking the cancel button. As we included this special feature to avoid the wastage of food in the restaurant and also to prevent the loss of money for the restaurant owners. If the customer cancelled the order and the reservation once the email is sent to them the money will be fully returned to them. If they cancelled the reservation after sometime i.e. before half an hour of their arrival money will not be fully refunded. About seventy percent of the money only be refunded. As this will prevent the loss for restaurant owners.

So we build a webpage for a particular restaurant that will take necessary details to reserve your table and give you a confirmation message regarding that through the email or SMS. This is important to take your food safely and maintain hygiene. We have used HTML ,CSS , Javascript ,PHP to implement it.

EXISTING SYSTEM:

The existing Online reservation Management System depends on only the table reservation. Such a system is prone to wastage of food and not able to prepare the food on time according to the customers wish. A lot of paperwork is generated and it is difficult for a supervisor to go through all these documents. Allocation of tables based on expected vacancies is also difficult as it requires extra work on the part of the employees. The costs of running such a restaurant is also great. Various problems of already existing system are described below:-

The existing system of reservation Management was manual. All the daily routines are carried out manually and the records are not maintained computer system as a database insted they maintain it in the record books or the registers. As computer has merged with man as single entity so a computerized application can be developed that can handle restaurant Management System. Various activities takes place in restaurant like:- All the above activity takes place manually, manually carrying out this activity in very tedious time consuming. As we have tried to develop computerized application so as to handle all the activity that takes place in restaurant. As all the activities that happen in the restaurant such as enquiry, check status booking, food order etc. can be maintained on this system .

Restaurant are the place where you stay, eat meals and utilize their other services. Booking:- The customer used to make enquiry for table available, and then depending upon the status he used to make booking. All the data the admin used to give the customer was based on paper works, there was no clear idea of the status of tables as they did not update automatically.

Food Order:- The customer gives the food order to the waiter, and then the waiter pass that order to the food department. If they reserved the table for any special occation they have to give the order to the waiter and then they used to eat.

Bill Generation:- The clerk operates the bill department he used to generate the bill of the customer depending upon the services utilized by the customer.

Inventory:- The inventory manager manages the inventory as he checks the status of the inventory and as per that he order places the order.

Report: The administrator views all the report of the various departments, to check the progress of the restaurant and to make the necessary changes

HARDWARE SPECIFICATION:

- Processors -Intel Core i3 processor or Intel Core i5 processor
- RAM 4GB
- Hard Drive-320 GB 5400 RPM hard drive
- Operating systems -Windows * 11 or later, macOS and Linux

SOFTWARE SPECIFICATION :

Included Packages: Html ,CSS ,Javascript ,Xamp ,Visual Studio,PHP.

LANGUAGE USED FOR DEVELOPMENT OF WEBSITE:

Html: The HTML document plays a couple of significant roles in a webpage. Hypertext Markup Language, or HTML, is a programming language used to describe the structure of content on a webpage. HTML, CSS, and JavaScript make up the building blocks of websites, with CSS controlling a page's appearance and style of it while JavaScript programming is for the functionality of the webpage.

CSS: CSS (Cascading Style Sheets) is a language for styling the webpage to make it attractive with the help of css properties. We can change the appearance and the layout of the webpage by using css properties. We can also define how a website's appearance changes in different screens like desktops, tablets, mobile devices and other devices.

Javascript: JavaScript is a client-side programming language which helps web developer to do Web Application Development and it helps to make a dynamic webpage along with interactive web designs by implementing custom client side scripting.

Bootstrap: Bootstrap is a free and open-source tool collection for creating responsive websites and web applications. It is one of the popular HTML, CSS, and JavaScript framework for developing responsive, mobile first web applications. Bootstrap is a framework to help you design websites faster and easy to access.

PHP: The abbreviation for "PHP is: Hypertext Preprocessor" .PHP is a server side scripting language that is embedded in HTML to store the data of the user. Helps in managing the content, databases of entered by the user, even build entire e-commerce sites.

MODULES:

Module 1: Login Module

In login module the users restaurants login will be taken while they already registered on the application. Every user will have login id and password to login to the application.

Module 2: Registration Module

Login page will be activated after the registration is completed. Through the password and username which they have entered during registration they can able to login into the website.

Module 3: Account Management Module

There will be an account manager who will manage all the online order transaction and he/she will be responsible for issuing printed copy of customers payment receipts.

Module 4: Place Order Module

The activity is performed by customer itself . Once the verification is done by application, the order gets confirmed and that will be notified to the customer.

Module 5: Carting Module

This is additional feature given to add the food items in customer's virtual basket just like pending orders or the orders which customer wants to do later or preorder for their dine during the reservation period. But, if the customer is first time visiting then he/she will unable to place order until he/she do registration to our application.

Module 6: Queries Module

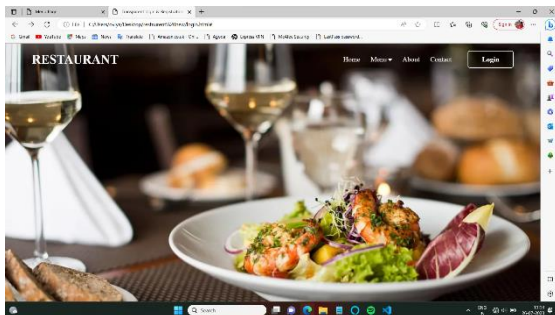
The private window for conversation between customer and customer executives will be given inside the application where they can ask about any kind of queries to the executives 24/7.

Module 7: Email Module

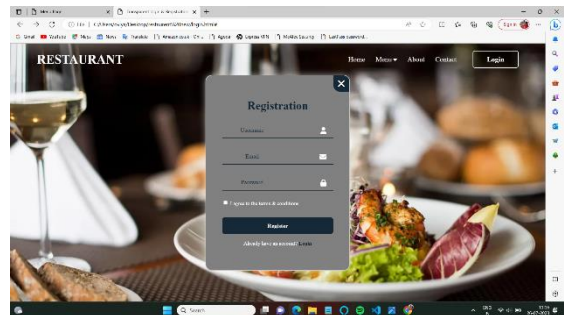
Mail will be send to the customer before 1-2 hr of their arraival. If they want to cancel the reservation made for them they can cancel it by just clicking the cancel button which we have send through the email.

MODULES DESCRIPTION SCREENSHOTS:

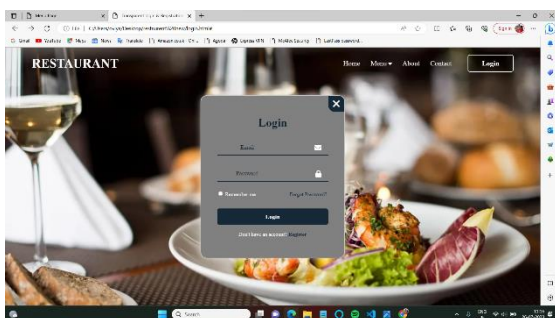
HOME PAGE:



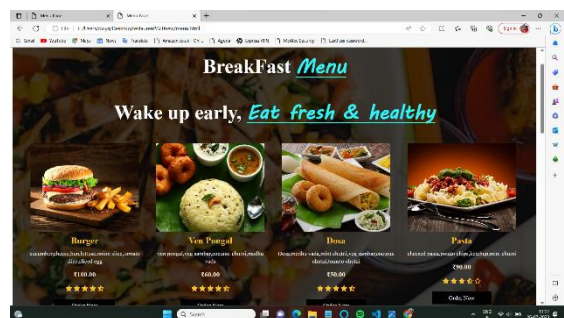
REGISTRATION PAGE:



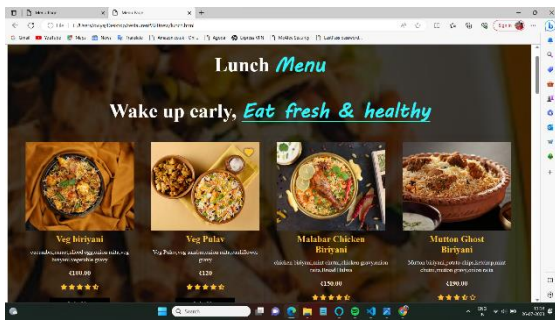
LOGIN PAGE:



BREAKFAST MENU:

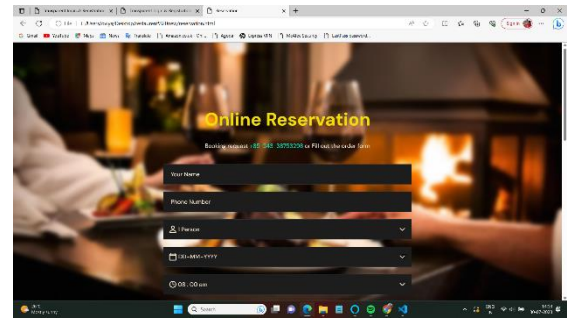


LUNCH MENU:

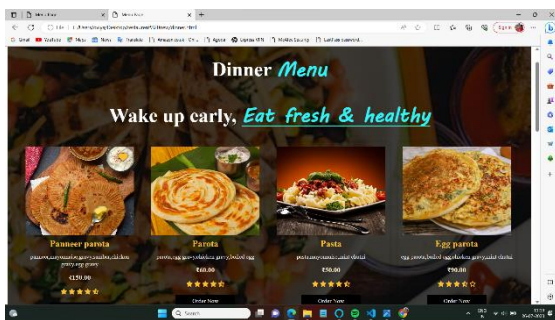


RESERVATION

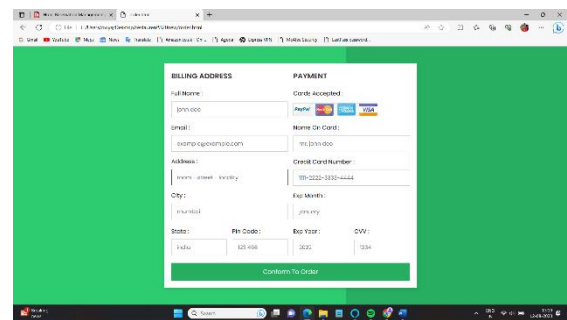
PAGE:



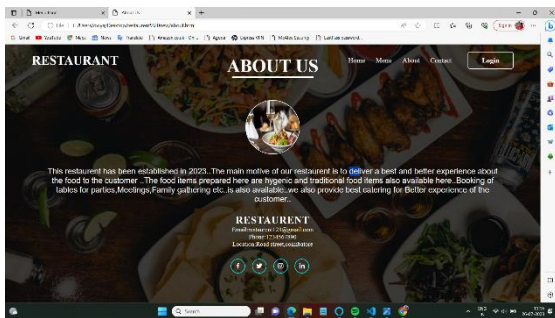
DINNER MENU:



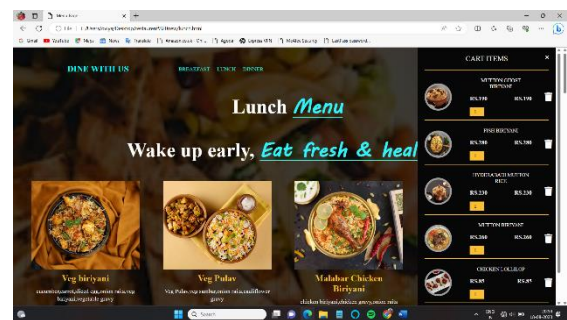
BILLING PAGE:



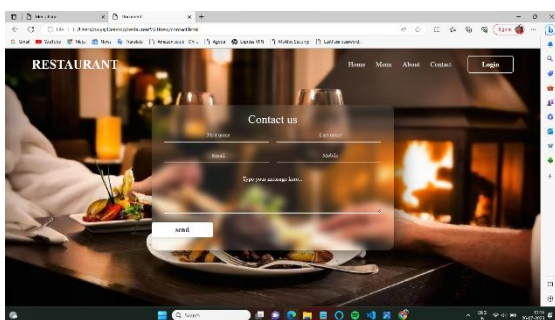
ABOUT PAGE:



ADD TO CART:



CONTACT PAGE:

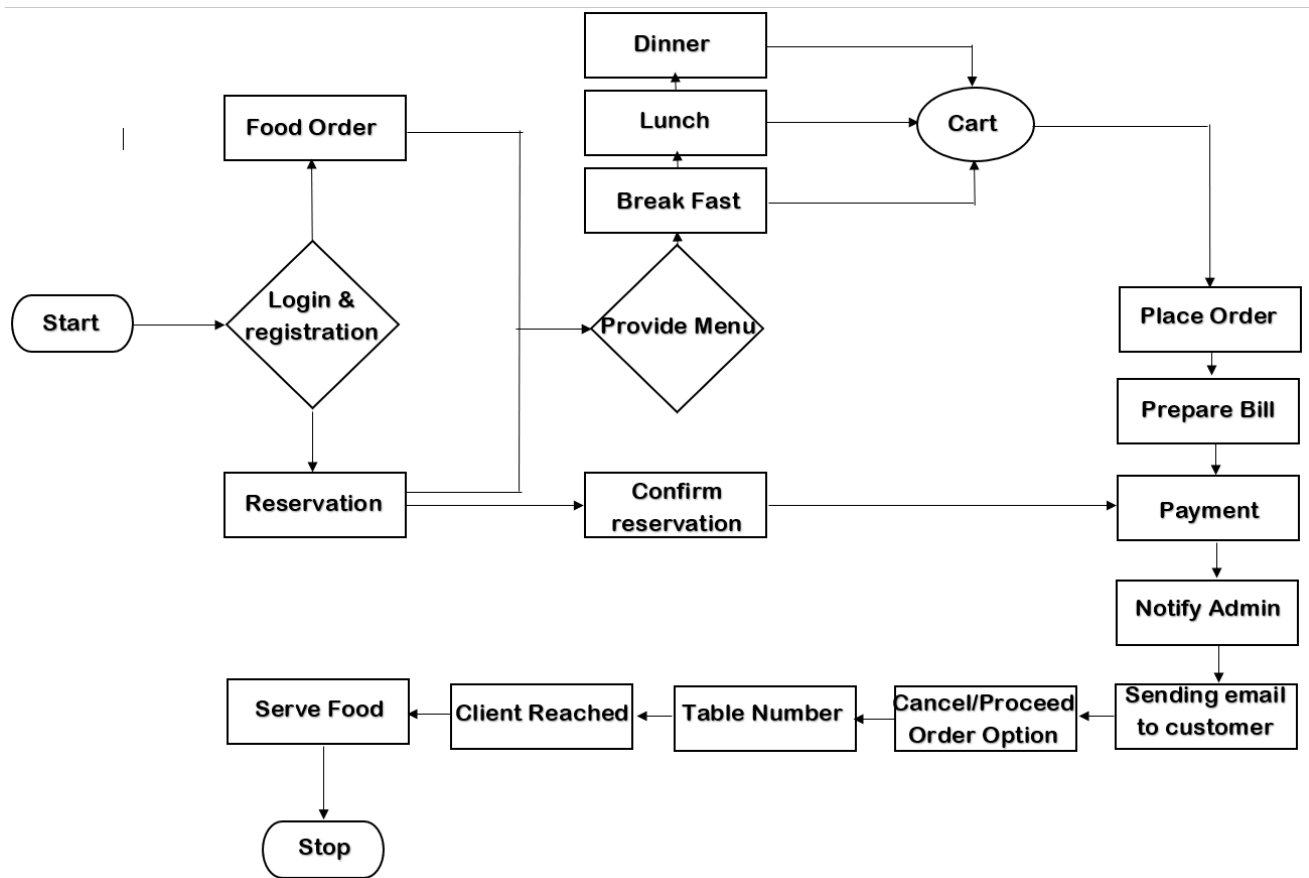


PROJECT DESCRIPTION:

The design of a restaurant management system mainly depends on the number of items, orders, and payment details where the statements of M. Mahaputra Hidayat, R. Dimas Adityo and Alek Siswanto. An advanced version with some modifications developers developed the online food ordering system In 2018 with the help of Singh Abhishek, R Adithya, Vaishnav Kanade and Salma Pathan . In which they added a notification module. There are many websites in the market that allow users to place food orders. Some of these sites include McDonald's, Starbucks, Door Dash, a food delivery service. However, our site is different from those existing ones. Rather than booking up the tables only they can also preorder the food so that restaurant owners can manage the production and preparation of food accordingly.

The project can be updated soon if any new requirement arises because it is flexible in terms of expansion. In the future, we can develop search engine algorithm for fast retrieval of data through which they can able to find out the nearby restaurant. Furthermore, we could add a notification module where the user gets a mail or message whenever the restaurant adds a new item, and we could add real-time tracking. This restaurant management system can be accessed by the employees in a restaurant through which they can able to handle the clients, their orders and can help them easily find free tables and place orders according to the clients wish. As preordering the food before their dine will help the restaurant owners to prepare the food in sufficient quantity without wasting the food and also the money. The services that are provided is food ordering and reservation table management by the customer through the system online, report it to the client as well as the chefs in the restaurant. The restaurant menu is organized by categories (Breakfast,Lunch,Dinner) of menu items. Main objective build the system this is to provide ordering and reservation service by online to the customer. The project is developing because; many restaurants have a lot difficult to manage customer ordering and reservation table. If the customer book an order and then later wants to cancel the order, he is permitted to do this only within a specific period of time. By using manual customer ordering is difficult to manage the orders in the restaurant.

FLOWCHART:



CONCLUSION:

A restaurant management system is essential for the owners to run their restaurant efficiently and smoothly. The restaurant management team indeed are compassionate and help in building a better community. The foundation of tomorrow lies in the service of the restaurant industry.

Data entering of customers and employees are also included in this system along with the order and the billing process. Customers, restaurant records and employees are interconnected in order to maintain the accuracy of this system. This system can also be further improved adding many other features and including the other systems as well.

REFERENCE:

1.Pantelidis, I. S. (2010).

Comments. *Cornell Hospitality Quarterly*, 51(4), 483–491.

<https://doi.org/10.1177/1938965510378574>

2.V. Liyanage, A. Ekanayake, H. Premasiri, P. Munasinghe and S. Thelijjagoda, "Foody - Smart Restaurant Management and Ordering System," 2018 IEEE Region 10 Humanitarian Technology Conference (R10-HTC), 2018, pp. 1-6, doi: 10.1109/R10-HTC.2018.8629835.

3.Soon Nyeen Cheong, Wei Wing Chiew and Wen Jiun Yap,2010 International Conference on Science and Social Research (CSSR 2010), 2010, pp. 680-685, doi: 10.1109/CSSR.2010.5773867.

4.Kimes, J Revenue Pricing

Manag 10, 189–194 (2011).

<https://doi.org/10.1057/rpm.2011.1>