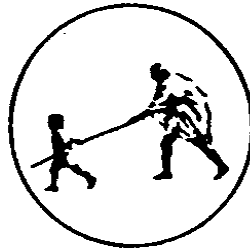


A
Project Report
On
“FOOD FESTIVAL”

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Under The Guidance
Of
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Submitted to



Mahatma Gandhi Mission's College of Engineering
,Nanded (M.S.)

Under
DR. BABASAHEB AMBEDKAR TECHNOLOGICAL
UNIVERSITY, LONERE
Academic Year 2022-23

A Project Report on

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**In partial fulfillment of the requirement for the degree of
BACHELOR OF TECHNOLOGY**

In

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**DEPARTMENT OF COMPUTER SCIENCE &ENGINEERING
MAHATMA GANDHI MISSION'S COLLEGE OF ENGINEERING
NANDED (M.S.)**

Academic Year 2022-23

Certificate



This is to certify that the project entitled

“FOOD FESTIVAL”

*being submitted by **Mr. Shaikh Noman Ahmed & Mr. Shaikh Shahed** to the Dr. Babasaheb Ambedkar Technological University, Lonere, for the award of the degree of Bachelor of Technology in Computer Science and Engineering, is a record of bonafide work carried out by them under my supervision and guidance. The matter contained in this report has not been submitted to any other university or institute for the award of any degree.*

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Abstract

A Restaurant Management System is a type of point-of-sale (POS) software specifically designed for restaurants, bars, food trucks and others in the food service industry. Unlike a POS system, (RMS) encompasses all back-end needs, such as inventory and staff management. Restaurant owner has to maintain records of each sales and purchase to keep track of the availability of stock of any materials which is used for cooking .This system will save time and will be easy to use when compared to manual work which will be done in paper.

In addition we added a complaint section for customer such that they can be easily give their feedback or complaint at this website. User can able to do this just by filling feedback form.This feedback is also stored in the database .Also we are adding table booking section so that user can be able to book table before coming in the restaurant .We are providing developer social media accounts like Instagram,facebook,linkedin so that if someone want to contact with developer then they can use his social media accounts.We are also providing menu so that customer able to order food through this website and all this activities also storing in the database.

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Introduction

Food Festival is a web application. This system is developed to automate day to day activity of a restaurant. Restaurant is a kind of business that serves people all over world with ready made food. This system is developed to provide service facility to restaurant and also to the customer. This restaurant management system can be used by employees in a restaurant to handle the clients, their orders and can help them easily find free tables or place orders. The services that are provided is food ordering and reservation table management by the customer through the system online, customer information management and waiter information management, menu information management and report. The restaurant menu is organized by categories (appetizers, soups, salads, entrees, sides and drinks) of menu items. Main objective build the system this is to provide ordering and reservation service by online to the customer. Each menu item has a name, price and associated recipe. A recipe for a menu item has a chef, preparation instruction sand associated ingredients. With this system online, ordering and reservation management will become easier and systematic to replace traditional system where are still using paper. To resister a meal online, the customer has to become a member first then he can access the later part of the site. this project to facilitate customer for make online ordering and reservation. The option of becoming member was only an attempt to avoid (to some extent) placing the fake bookings.

Food Festival is the system for manage the restaurant business. After successful login the customer can access the menu page with the items listed according to the desired time. The main point of developing this system is to help restaurant administrator manage the restaurant business and help customer for online ordering and reserve table. In proposed system user can search for a menu according to his choice i.e. according to price range and category of food and later he can order a meal.

The project is developing because; many restaurants have a lot difficult to manage the business such as customer ordering and reservation table. If the customer book an order and later wants to cancel the order, he is permitted to do this only within a specific time period. By using manual customer ordering is difficult to waiter keep the correct customer information and maybe loss the customer information. The customer is also

given with the facility to view the status of the order and if the order is ready then he can go and get it.

So, Food Festival will develop to help the restaurant administrator to manage restaurant management and for customer make their online ordering and reservation table. At Management side, initially the staff member has to login, and according to his designation the privileges are set. Other than that, this project is to upgrade the manual system and make the business easily to access and systematic. If the staff member is a cook, then he is allowed to edit only the order items status, indicating which menu items he has prepared.

1.1 Proposed Restaurant Management System:

Nowadays, many restaurants manage their business by manual especially take customer ordering. . In traditional booking system, a customer has to go to restaurant or make a phone call in order to get his meal reserved. Today, restaurant waiter takes the customer ordering by manual system with using paper. Customer does some formal conversation like hello, hi, etc. Than he demands for today's menu and do some discussion over menu items then he orders. It takes 5 to 10 minutes to book the order and waiter book the order on paper so there is probability of lost and duplicates customer information. Restaurant management system puts the order in a queue with specific priority according to time and quantity, and than a cook is assigned for the specific order to complete it.

Besides, the restaurant waiter information also by manual system kept use paper and this is difficult for restaurant administrator to find waiter information, probability missing the paper and difficult to arrange the schedule. Initial problem is that the customer has to get connected over the phone, it would be harder if the restaurant is very popular and busy. Sometimes, waiter information and customer information is important to restaurant administrator for reference in the future. The chances of committing mistakes at the restaurant side in providing a menu list for a specific time would be more.

Furthermore, restaurant side needs management in the section menu. This is the important to restaurant waiter to manage the menu. As customer won't have the menu

list with him, it would be harder for him to remember the entire list (with price as well...!) and come to a decision, i.e. customer is provided with less time to make decision. Besides this section is for customer viewer the menu that restaurant prepared and make their ordering.

There might be some communication problems or sometimes language might be a barrier. As a result, the current system (manual system) is not effective and efficient to use anymore. As entire booking has to be done manually at the restaurant end, the chances of occurrence of mistakes is high as well. information, menu information, customer ordering information and generate report well. Even assigning orders (or some menu from the order) to a specific cook can be cumbersome if it is done parallel with the bookings of the order.

1.2 User Of The System:

Customer

This user will register to be a member to use the online system of this Food Festival. This online ordering divided into two type of customer; it is customer dine-in ordering and takeaway ordering. For dine in ordering, customer will view menu, make online ordering and make a reservation table. This system allows customer to place an order or allow him to cancel the book order. But takeaway ordering, customer can view menu and online ordering without reservation table. During login, the costumer has to enter the time of delivery, and the menu items will appear accordingly. As availability of items differ from time to time. After customer make online ordering, customer can take ordering the date that customer was choose during make online ordering. Customers can search menu according to price range and the category as well, Event though, customer must confirm online ordering with restaurant three days before customer take the ordering for dine-in customer and for take-away customer will be confirm one hour before it whether by email or phone. customer can create his new account or he can edit his personal information from the existing account.

Administrator

Administrator or manager is the person who will manage the entire system. he is allowed to reassign the cook according to his priority, he can edit the menu information such as its price, items available currently, etc. This type of user will also do maintenance and control the application of this system. A manager can reassign the cook for a specific order or an item. Administrator takes a responsibility to register new customer, register new waiter, register new menu into database. A manager can edit/create some or whole part of the menu record on daily basis. That is by changing the menu items, prices, description, etc.

Unexpected Advantages:

Print ads and commercials are expensive. With a website you can display an endless amount of print information at a fraction of the cost. Information is available 24/7 to anyone with internet access and you can easily update out-dated information on your website whereas the cost of re-printing flyers is far greater. More striking perhaps was that the first group's texts were also of a higher quality than those of the second group.

A website gives you a platform to provide the basic information your customers may need to know about your restaurant including hours of operation, directions, payment methods and more. By answering these basic questions, you can decrease the amount of time your managers and staff need to spend answering phone calls. You can also keep customers aware of any promotions, such as pre-theatre menus, lunch deals or Christmas offers. Teachers can thus benefit from training their students to type before giving them computer-based writing projects. Not only could faster completion of the task make up for the training time, the finished text may also be of higher quality.

When people are looking for information the first place they will look is on the web. It is important that if someone is looking for your business they can find the information that they need quickly so they are less likely to become disgruntled and consider your competitor(s).

You can easily add an online booking link or app to your website giving your customers a quick way to make reservations on the go.

A website gives you a channel to promote your other services. Offer catering or private events? Creating pages for these and using SEO (see point 5!) can generate more business. Wilderman and Owston found that students who regularly write on a computer produce texts of a higher quality in terms of style and structure. The researchers conclude that regular use of wordprocessing software contributes to the qualitative improvement of students' written work. For Crook, this underscores the importance of a good typing technique in ensuring that computer-based writing is as rapid and fluent as possible.

By investing time into search engine optimisation (SEO) you can help your business show for related search terms. For example if your website shows for someone searching 'late night café', 'Italian restaurant' or 'family friendly pub' you will gain more exposure and hopefully more customers. Overall, those who keep their eyes on the screen are faster and more productive, tend to re-read their work more frequently, and are more capable of mental multitasking. Research led by Crook and published in scientific literature has established a correlation between writing speed and compositional quality of texts by children aged 7 to 9.

Make it as easy as possible for people to spend money at your restaurant. It will only boost your revenue.

Your website gives you a place to show off positive reviews that will bring more people through your door.

1.2 Overview "Matara Kema" is a restaurant located in Matara. They are handling food ordering process and daily routine of their restaurant manually. Customers cannot order food online in this hotel. In case of take away food or dining there, customer have to visit or call and order. Table reservation is also the same. This project is based on automating the above mentioned processes. The problem that many businesses face today is to make sure that they attract new customers and also they keep their existing customers. The cost to attract a new customer is costlier than retaining the old customer. Therefore, there is an argument that for a business, existing customer is worthier than a new customer. In this industry, a customer is likely to return to the restaurant in the future if they received an excellent customer service as well as appetizing food [1]. However, if they had to wait for an unreasonable amount of time or there was a mistake

in the order, it's very unlikely the customer would return. 1.3 Problem "Matara Kema" is a food store located in Matara. Their process is currently manual and time consuming. Customer cannot order food online, before they visit the restaurant. They have to visit the restaurant and place the order. Then they have to wait until the order is ready. There is no visual confirmation that the order was placed correctly. Customers cannot ensure about the correctness of their order. Order customization is also difficult because it takes more time. Table reservation is also difficult. This restaurant is very busy in the morning and evening after 6 pm because the restaurant is located in a very attractive place, near Godagama expressway interchange. Therefore, the restaurant is always full. Currently customers have to come to the restaurant to reserve a table. Sometimes customers have to wait long time to reserve a table during busy times. Also, very long queues are there. It is difficult for the cashier to handle such a situation. On the other hand, this situation is difficult for the kitchen also. They are receiving orders one by one. Sometimes kitchen is receiving same food item within separate orders in same time. So kitchen has to make them separately. This is time consuming and inefficient costly method. It is better if the orders for same kind of food are grouped. It will help them to save time and attend to the next order quickly. At the end of the day, taking a summary is also difficult because there are so many orders and they are not recorded properly. This happens because they are not keep records properly. Taking this summary is important because they can review what the fast moving items are and what items are not ordered frequently. Sometimes customers do valuable suggestions. Usually staff is listening to them and try to do the improvements. But they are not keeping records of those suggestions and they may forget them at the end of the day. It is not good for the restaurant because it will break the trust of the customer and missing the opportunity for the improvement. Currently, this restaurant uses least efficient methods such as paper-based or verbal method to communicate between the restaurant and kitchen. Even though this approach is implemented in successful profitable restaurants, there are several problems which could be seen as reducing the restaurant's efficiency that can be identified using above scenario: • Sometimes handwriting can lead to miscommunication. • Order logging is unmanageable. • Inefficient restaurant-kitchen communication. • Difficult order tracking and time management. • Difficult stock management. • Limited statistical output [2]. Online system that proposed here will simplify the ordering process and it will be helpful to both restaurant and customer.

The proposed system will be developed with interactive menus, pop-up messages etc. for the easiness of the user. Customer can select the required food item with available customizations and the can change the order at any time before checking out online. If order is confirmed, it will display a pop-up message as confirmation to the customer. When the order is placed it's recorded in the database and retrieved in real time manner. Through this option Restaurant Employees are allowed to quickly go through the orders which they have received. Therefore, they can process all orders efficiently and effectively with minimal delays and confusion.

3 1.4 Motivation for the project

The motivation of this project comes with observing their difficulties in busy situation while I was there as I usually visit the place to order food. Personally I don't have much time to wait in long queues. This restaurant is also very crowded during lunch and dinner time. Although this restaurant is not very large they have to provide quality service to enormous number of customers. Without a system it is very difficult. Other than that, I value learning web designing and development because I have less experience in this area and it will be helpful in future for my carrier. New expectation is there for this project due to the current situation in the country with Covid-19 virus. This kind of solution will help to make the restaurant less crowded.

1.5 Objectives of the project

Maximizing the profit is one of main objectives of any business. This can be achieved by increasing efficiency and decreasing overheads without compromising customer satisfaction. Through better application of daily operations restaurant can increase the efficiency and can offer improved services to the customers. Because almost all processes are manual and time consuming, all the processes should be automated.

The Main Objective: To build a web based restaurant management system for "Matara Kema" Restaurant. In order to fulfill the main objective following goals have to be achieved.

- **Improve customer relationship management** Proposed system enables visual confirmation to the customers that the order was placed correctly and will decrease difficulties. When the order is ready, kitchen can update the food order status as ready. Same time, customer and the cashier will be notified. This will reduce miscommunication and workload of the cashier. Reducing waiting time of the customer will improve the customer satisfaction.
- **Avoid long queues** This solution will help to increase the efficiency of restaurant's staff. It eliminates paper work and increase level of accuracy. Staff can handle more

customers in little time because web based solution can improve speed of service, sales volume and customer satisfaction.

- Bulk Processing Order retrieval is simple and kitchen can see the order as bulks. Then kitchen can process more orders because they can complete several same type of orders at the same time.

- Customer feedback Customers can give feedback which is very valuable for improvements of the restaurant.

- Stock Control All the kitchen ingredient stock levels can be maintained through the system. Proposed system will facilitate restaurant to maintain kitchen stock.

- Menu item management. Kitchen can maintain possible meals and can update which item cannot be provided in relevant day.

- Discounts Providing special discounts and promotions. They can assign, "Item of the Day" for special discount. System can identify whether the customer is new customer or regular customer. For the regular customer, system can provide special discounts.

- Increase the customer satisfaction and make them retain with the restaurant.

1.6 List of deliverables The following deliverables are expected upon the completion of the proposed System.

- Create WBRMS where the customers can order the items, update and cancel orders, staff can manage menus, discounts, display items and control inventory.

- Generate essential reports throughout the process.

- Provide detailed user manual.

5 1.7 Scope of the project Proposed system is valuable for both customer and the restaurant because it is simplifying the order processing process. Customers have to create an account with valid phone number or email and can log-in to the system. The web page has up-to-date and interactive menu with all the available food items. When customer made a selection, items added to their order.

Customer can review order at any time and change the selection before the payment. Online payment and cash on the collecting counter is possible. Confirmation is prompt to the customer. If it is required, customers can check the table availability and make a table reservation if necessary. Proposed system is not handling delivering food, due to restaurant is not having delivery team. After a customer placed an order, order details are visible to the kitchen. They can see what the quantity that is required from each item is and they can fulfill multiple orders with same food item in same time. This happens because proposed system can combine orders during allowed time period. Stock of the ingredients should be always up to date. Otherwise, restaurant cannot fulfill the customer orders properly and may accept orders that cannot be fulfilled due to lack of ingredients. Real-time view of ingredient stock levels is very much important to so much necessary to any restaurant. Then only the meals with enough ingredient stock can be sold. The stock levels will be updated by the kitchen staff at the end of the day through the proposed system. Restaurant should be able to control the menu items. This ensures that the customers can only order available food items. Only authorized employee can handle the menu. They can create and remove food categories, food items. When creating these categories and food items, employee can add photos and description also. Adding new food items also possible. Remove food items and change visibility of food items. Create and remove options of food items. They can edit and update prices of the food items. They can select “Food Item of the day” and allocate special discount to them. Giving reasonable discounts to the customers, can keep customers without moving out from the restaurants customer base. First restaurant must identify if the customer is new customer or regular customer. Giving proper discounts to regular customers will increase their satisfaction and they will not move to another restaurant. 6 Restaurant can keep track of all the orders, retrieve and display order information. This information invisible to the kitchen for the order processing. These order details can be useful to report generation. Customers can give general feedback and suggestions about the restaurant and meals. Those are only visible to the management of the restaurant. Also, customers can give star rating to each and every meal. Other customer can view those when they are selecting their meals. Order logging and report generation are also implemented in proposed system.

Resturant Management Module

Managing a restaurant on any regular day can range from minor scheduling delays to major management fiascos. Wish to have your cake and eat it too? While successfully managing a restaurant, you will find yourself in need of multiple helping hands and countless reminders.

What if all the help you need arrived in the exact manner you need and at the exact time, sometimes even without you having to set reminders! An interactive skill set that helps you efficiently manage your restaurant is a power tool that every restaurant needs at hand. So, the introduction of efficient restaurant management systems has given most restaurants the respite they need.

2.1 Booking Table

In the booking table system customer book a table from home if table is available the they are able to book a table easily if table is not available then customer should wait or try again after sometime.

In the resturant website we gave a page for booking table in that there is a form in which there are some points given their or some coloumns are there in which we want customer details like firstname, lastname,email,tabletype,placment and like that sooo on.

In booking table section we use HTML, CSS, JAVASCRIPT as frontend and MYSQL as backend. in backend we store the information of customer in database mysql if any customer visited our site booked table then we seen his/her data in MYSQL database.

In the Form we use JAVASCRIPT for validate the elemnents of form for validation we use some information or tags and so on.

HTML form validation is a process of examining the HTML form page's contents to avoid errored-out data being sent to the server. This process is a significant step in developing HTML-based web applications, as it can easily improve the quality of the

web page or the web application. There are two ways to perform the HTML form Validation, and they are by Using HTML5 built-in functionality and by Using JAVASCRIPT.

There are mainly two ways by which HTML form validation can be performed,

Using JavaScript

for building form we use html and its tags like `<form>tag</form>` and like that we use many tags

The `<form>` element is a container for different types of input elements, such as: text fields, checkboxes, radio buttons, submit buttons, etc. The input you have given the typing section after seeing the paragraph your typing speed will get analyzed by your net speed gross speed how much duration you have taken to type the words for a paragraph how much letters you have formed how much word you have formed that will get analyzed by this typing speed.

Notice the use of the `<label>` element in the example above.

The `<label>` tag defines a label for many form elements.

The `<label>` element is useful for screen-reader users, because the screen-reader will read out loud the label when the user focus on the input element.

The `<label>` element also help users who have difficulty clicking on very small regions (such as radio buttons or checkboxes) - because when the user clicks the text within the `<label>` element, it toggles the radio button/checkbox.

The `for` attribute of the `<label>` tag should be equal to the `id` attribute of the `<input>` element to bind them together.

What if all the help you need arrived in the exact manner you need and at the exact time, sometimes even without you having to set reminders! An interactive skill set that helps you efficiently manage your restaurant is a power tool that every restaurant needs at hand. So, the introduction of efficient restaurant management systems has given most restaurants the respite they need.

The <label> element also help users who have difficulty clicking on very small regions (such as radio buttons or checkboxes) - because when the user clicks the text within the <label> element, it toggles the radio button/checkbox.

The screenshot displays a web browser window with the title 'Booking | SK's Restro'. The address bar shows '127.0.0.1:5500/booking.html'. The website has a navigation bar with links: Home, Fes_Menu, About, Contact, and a highlighted 'Book Table' button. The main content area is titled 'Book Table' and contains a form with the following fields:

- First Name: Text input field
- Last Name: Text input field
- Email: Text input field
- Table Type: Dropdown menu with 'Choose' selected
- Guest Number: Text input field
- Placement: Dropdown menu with 'Choose' selected
- Date: Text input field with a calendar icon and placeholder 'dd-mm-yyyy'
- Time: Text input field with a clock icon and placeholder '--:--'
- Note: Text area

A green 'Book Table' button is located at the bottom of the form.

Fig 2.1: Booking Table

2.2 Contact & Inquiry

In this part we our information to the customers . that how to contact us in that section we gave adress of our resturant , Email adress, Contact number, and also gives them the opening and closing time of our resturant.

For that we use many tags of html most of the part of html and also use one form named as contact and inquiry form in that customer fill all possible and necssary detail and submit the information for contacting us.

Here in our website we use svg tag for making a graphical image of call or map and for watch the svg tag is help us for making these type of images and using in website.

Most contact pages are designed with function in mind.They slap an email address, phone, and location on a plain background and call it a day.But basic contact pages don't inspire visitors to reach out and connect.

Other pages make it easy to contact the company – which is awesome. Except, that can also drive up customer service costs. So what makes the perfect Contact Us page? An awesome Contact Us page finds just the right balance between making it easy to reach the company and sharing resources users can use to answer their questions right away.

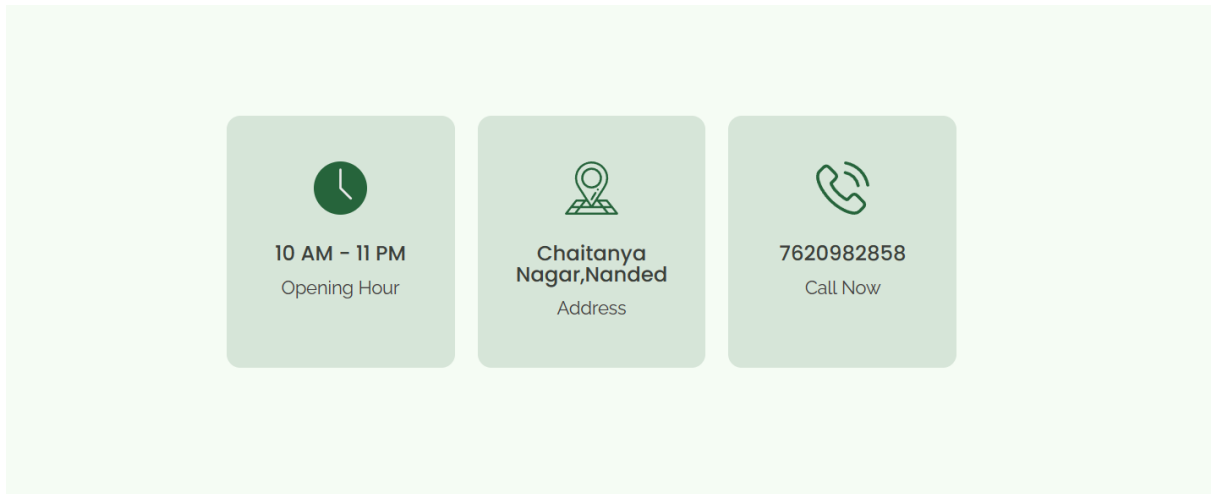


Fig 2.2 Contact & Inquiry

Keep reading to discover 39 examples of Contact Us pages that go beyond the basics and will, hopefully, inspire you to take your site to the next level. This makes sense because proof-reading and correcting errors takes up more time than simply typing a passage correctly in the first place. Less mistakes also means less chance for errors being missed during proof-reading and making their way into the final product.

To calculate Net WPM, take your gross WPM result and subtract the amount of errors you left in per minute, also known as the error rate. To calculate error rate, simply divide the number of errors by the time you typed for in minutes. For example, if you typed for two minutes with a gross typing speed of 80 WPM and left in 8 mistakes, your error rate would be $(8 \text{ errors} / 2 \text{ mins}) = 4 \text{ errors per minute}$. Your net typing speed would then be $(80 - 4) = 76 \text{ WPM}$. Note that for every mistake you make per minute your typing speed goes down by 1 WPM.

This is a rather simple equation - the hard part is actually deciding which types of errors should be counted. There are two kinds of errors:

Methodology

3.1 Benefits of Restaurant Management Systems

Track sales item by item All transactions such as orders, payments, promotions, deals expenses are captured by the restaurant management system. Therefore, sales data is accurate and spot on to last item. Therefore, revenues can be calculated correctly and health of the business operations can be identified accurately. In built notifications are there to give notifications of variances of the system. Most of the restaurant management systems have this feature. As example, the gap between stock level and order volume at the end of the day, or unauthorized order voids. Alerts are typically sent via email or phone or can be viewed from a dashboard. Sales data can also be broken down into various categories to make sense , such as by bestselling item ranking, customer names, or cash vs. card payment rate . Generating quick and efficient financial statement If it's possible to capture transactions digitally, manual errors can be avoided. As example, each transaction is time-stamped and recorded with relevant details, such as cashier name and sold item etc. Sales data is also synced with CRM and inventory to update customer information as well. The data is consolidated. With that integrity of the financial reports is well protected. Not like manual system, report generation is simple as few mouse-clicks. The system can run analytics on data queries. Using that KPIs can be displayed using graphs and charts. 3. Better customer service This is probably the best reason to use a restaurant management system: make customers happy. Most restaurant management systems come with CRM software features. This module records customer information like name, contact details, and transactions. With more knowledge of customer's likes, delivering a more satisfying service is possible. This can build a mailing list, run campaigns that target their interest based on past orders, or push deals that match their profiles. The CRM typically comes with a loyalty program to help rewarding regular clientele. Similarly, advanced features like online booking, mobile payments, and kiosk POS make it convenient for customers to place orders and transact business with restaurants. Similarly, the use of an iPad or

Android tablet makes tableside ordering faster, to the delight of customers. 11 Some restaurant management systems also give the option to work with a shared delivery network service therefore can reach eager customers outside the neighborhood. Overall, the restaurant management system helps to run a restaurant business more efficiently to the satisfaction of the customers [4].

4. Data can be accessed from anywhere Cloud-hosting method is used in most restaurants today. It allows to access the system and data from a web browser. Real-time sales transactions and tracking employee performance is allowed even on the go. That means manager is not required to stay in restaurant premises to handle the restaurant. Manager can be a hands-on manager while out of the place. Even for the client or investor this is beneficial because of the remote data access.

5. Staff management become more efficient If employee scheduling is available in a restaurant management system, it will help to staff allocation during peak of off-peak time frames. Downtime may be less. With aggregation of sales data with staff schedule, it is possible to match demand with supply. It will help to ensure that resources are optimized, neither over- or under- utilized. Other than that, most of the systems employee scheduling feature. Using this method, employees can plot their schedule where everybody sees the available and taken slots. Conflicts of schedule or nonappearance can be avoided using this feature. Waiting staff during peak hours can be managed using this. It is helpful because staff can manage their own schedule without any problem.

6. Better communication for the kitchen, wait staff, and cashier The perennial problem in running restaurants is that somewhere along the way, someone mixes up information. The result: an angry customer whose order is, if not wrong, remains unaddressed or improperly billed. A restaurant management system does away with this scenario. When waiter takes orders via a handheld device, that data is automatically transmitted to the cashier, so the right transaction is captured and billing is accurate. At the same time, the handheld device transmits the order items to the kitchen. Barking orders to the head cook is a thing of the past.

7. Saving Costs Well planned and managed employee schedule and well organized inventory restaurant can reduce the daily operational costs. Avoided variances or at least considerably reduced, can add 12 more savings from restaurant's profits. Likewise, there are plenty of areas where a wellmanaged restaurant can squeeze out savings. Some vendors also hook the restaurants to an online marketplace and delivery service network, so they can scale operations minus the overheads that come with expansion. New restaurants grappling

with marginal profits can cut down on losses by simply running their operations more efficiently .

3.2 Comparison Of Development Life Cycles

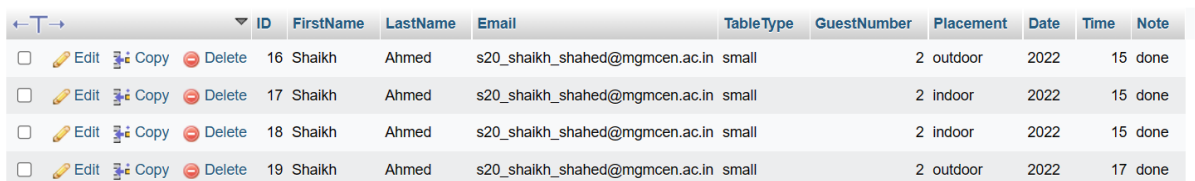
It is very important to identify best method to do the development of the system. Variety of software development life cycle models are available. Success of any project is depending on selecting a suitable model for a specific development project. In the background study, waterfall, spiral, incremental/iterative (agile), v-model is considered as the alternative software development

Proposed Web based restaurant management system it is a middle sized project. Currently, requirements are finalized but some changes may possible. Therefore, project will be developed using a modular approach. The guarantee of the success of this project must be high. 21 Following a modular approach and develop the system as working modules will be better. Previously waterfall model was selected, but through further studies it confirmed that the traditional waterfall approach is not suitable for this kind of project. So, it is decided to follow the principles of iterative and incremental software development life cycle (Agile) for this project.

History Section And Feedback Module

4.1 History Section

In the history section of typing speedo all the test results you have done will get stored by the time and your date respectively all your net speed gross speed the time duration and the words and letters you have formed will get stored as a reserved and you can see it anytime in the typing speedo site history section will store all your previous results and store and sorted it it by the date and time respectively you can see your typing test result lifetime without any problem because all the typing test results are stored in the JavaScript local storage.



		ID	FirstName	LastName	Email	TableType	GuestNumber	Placement	Date	Time	Note
<input type="checkbox"/>	Edit Copy Delete	16	Shaikh	Ahmed	s20_shaikh_shahed@mgmcen.ac.in	small	2	outdoor	2022	15	done
<input type="checkbox"/>	Edit Copy Delete	17	Shaikh	Ahmed	s20_shaikh_shahed@mgmcen.ac.in	small	2	indoor	2022	15	done
<input type="checkbox"/>	Edit Copy Delete	18	Shaikh	Ahmed	s20_shaikh_shahed@mgmcen.ac.in	small	2	indoor	2022	15	done
<input type="checkbox"/>	Edit Copy Delete	19	Shaikh	Ahmed	s20_shaikh_shahed@mgmcen.ac.in	small	2	outdoor	2022	17	done

Fig 4.1: History section

4.2 Java script local Storage

The local Storage read-only property of the window interface allows you to access a Storage object for the Document's origin; the stored data is saved across browser sessions.

Local Storage is similar to session Storage, except that while local Storage data has no expiration time, session Storage data gets cleared when the page session ends — that is, when the page is closed.

Description

The keys and the values stored with local Storage are always in the UTF-16 string format, which uses two bytes per character. As with objects, integer keys are automatically converted to strings.

For documents loaded from file: URLs (that is, files opened in the browser directly from the user's local file system, rather than being served from a web server) the requirements for local Storage behavior are undefined and may vary among different browsers.

In all current browsers, local Storage seems to return a different object for each file: URL. In other words, each file: URL seems to have its own unique local-storage area. But there are no guarantees about that behavior, so you shouldn't rely on it because, as mentioned above, the requirements for file: URLs remains undefined. So it's possible that browsers may change their file: URL handling for local Storage at any time. In fact some browsers have changed their handling for it over time.

The following snippet accesses the current domain's local Storage object and adds a data item to it using `Storage.setItem()`. Using JavaScript local storage all the previous typing is results our Store in the form of cookies as sessions.

4.3 Feedback section

Feedback is an event that occurs when the output of a system is used as input back into the system as part of a chain of cause and effect. This alters variables in the system, therefore resulting in different output and consequently different feedback as well, which can either be good or bad.

In the case of a system which requires knowledge of the output in order to improve or deliver on a specific output, then feedback is essential and good. But for a system that does not require feedback, such as an audio system, then feedback is often bad.

Take for example a microphone and speaker system, when the sound from the speakers (output) is picked up by the microphone (input) it creates a negative feedback that produces a very high pitched sound.

Feedback is basically the concept of taking output and using it as input, either to further drive the system or produce a desired output. A good example is feedback used in an assembly line, when an output does not meet the minimum quality or quantity set by

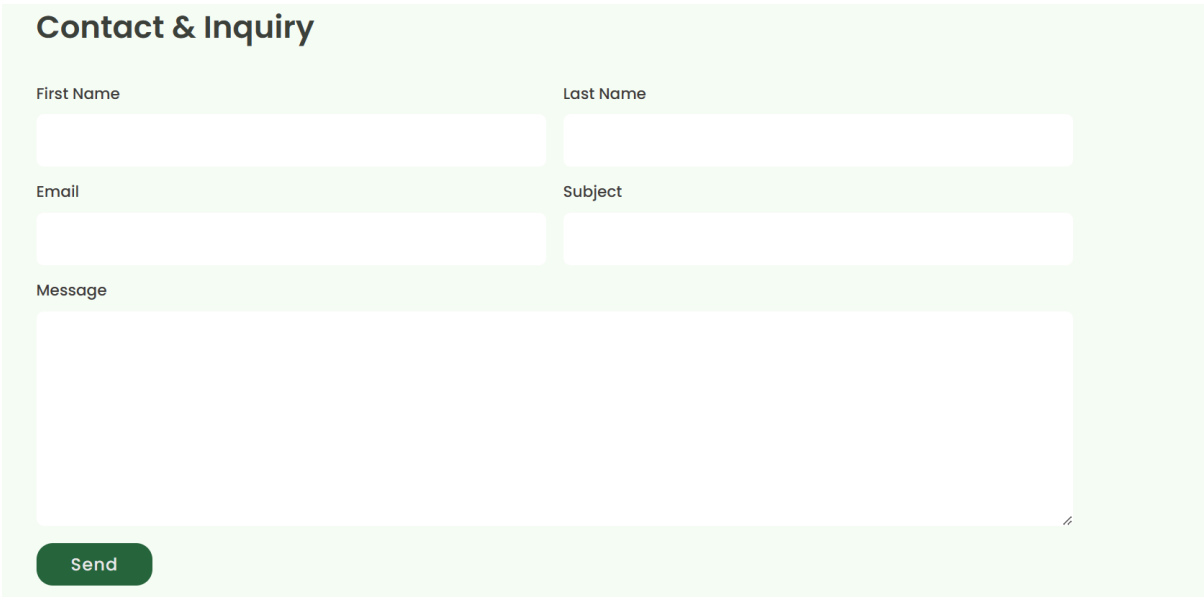
the system, it adjusts itself either to ramp up the production speed or even automatically stop if there are major deviations in the output.

In electronics, feedback is often used to get a desired result from a circuit. The simplest example would be an operational amplifier which uses feedback to vary the characteristic output of the op-amp, hence changing its "operation."

The output of the op-amp is basically fed back into one of its two inputs, and depending on the configuration of the feedback loop, the feedback can control the gain of the op-amp or make it act as a kind of signal conditioner, filtering out signal distortions from the system. In this case, feedback is used as a purely quantitative element with predefined mathematical equations.

Feedback is a reaction or information that occurs as a result of actions or behavior undertaken by an individual or group. In a Learning & Development context, both positive and negative feedback is crucial. Feedback provides a sense of engagement and interactivity and allows learners to take ownership of their learning. Effective feedback shows learners their current level of performance and lets them know what they need to do to reach a higher level.

the feedback fraction of typing is automatically fills the name and subject and message of the user who have used the site and delivered to the default mail address of developer.

A contact form titled "Contact & Inquiry" with a light green background. It contains four input fields: "First Name", "Last Name", "Email", and "Subject", arranged in a 2x2 grid. Below these is a large "Message" text area. At the bottom left is a green "Send" button. A small double-slash icon is visible at the bottom right of the message area.

Contact & Inquiry

First Name

Last Name

Email

Subject

Message

Fig 4.1 Feedback Form

Environment In Implementation process both server side and client environments were considered. There are environment requirements in this process. Those requirements are divided as software and hardware requirements. 4.2.1 Operating Environment This requires active internet connection because this is web based.

- Minimum Windows 8.1 Operating system - 32 or 64 Bit. (earlier Windows 7 was enough, but due to discontinuation of updates from Microsoft windows this was changed.)

- 2 Computers (One for the cashier and one the admin user)

- 2 android Tabs (for chefs)

- Active Internet Connection 4.3 Development tools and techniques 4.3.1 Tools

- PhpStorm - PhpStorm is a cross-platform IDE for PHP. PhpStorm provides an editor for PHP, HTML and JavaScript with on-the-fly code analysis, error prevention and automated refactoring for PHP and JavaScript code.

- MySQL - all database related developments were handled using this because development tools, and administration objects are available with this software.

- Adobe Photoshop CC 2018 was used to edit photos 35 4.3.2 Technologies

- HTML – Hyper Text Markup Language is used to build the base interfaces of the system

- CSS – Cascading Style Sheets was used to make the system more attractive and user friendly. • Php –used to build the system

- JavaScript- this is a programing tool to web development and used for validations.

- JavaScript based AJAX – Used to get data from server. Use of this avoid the requirement of refreshing it continuously.

- JQuery - Which is also based on JavaScript was used to implement some features.

- Lanka Hosting Space- Paid service used here to host the website. 4.4 Reusable Components

- Date picker – To select a date from the calendar.

- Data table – Table adept of searching and filtering data, pagination of data.

- CSS – Cascading Style Sheet to design an interactive user interface.

- Web Template –Front end Design which can edit

- Charts - Use to generate HTML based JavaScript based interactive charts to display information graphically to user. 4.5 Network Architecture Users can interact with the restaurant management system using web browser. Can be access via Internet and this system has central web server, for users to connect using their internal network in future. 4.6 Application Development Architecture 36 4.7 Main User Interfaces Only a few number of user interfaces and wireframes are provided in this section to show the structure of the system. Please Refer Appendix C - User Documentation for the rest of the interface designs.

Conclusion

Our project is only a humble venture to satisfy the needs to manage their project work. Several user friendly coding have also adopted. This package shall prove to be a powerful package in satisfying all the requirements of the school. The objective of software planning is to provide a frame work that enables the manger to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses.

This is the final chapter of this dissertation. Objectives achieved, lessons learnt, Problems and future enhancements will be discussed here. Matara Kema restaurant is become more popular than previous times. They have a plan to start delivery services also. Therefore, it has been implemented as a web based system to meet the requirements of increasing demand This system helps to manage entire restaurant easily. Restaurant operations also can be well mange using this solution. It was really difficult to explain about this system, and gather the requirements they need. Due to medical condition, I had to omit some parts of the system because I was not able to work more than one month. Covid-19 situation also made so many difficulties to development of this system because agile methodology is used. Testing was not able to done properly because even after 3 months still restaurant is not operating properly. Lack of knowledge about development tools and hosting environment was also a huge problem. Books, Video lessons and support from knowledgeable people were used to overcome this problem to some extent. Lessons Learnt Throughout this project, valuable knowledge has been gained. This is the first experience to work with a client that has no IT knowledge. Learned many things about fact gathering techniques in actual environment. This project gave me the opportunity to gain experience of actual web developer. It helps to understand how project planning should be done and had opportunity to collaborate with many Individuals and improve my skills. Had a great lesson about time management also. This was the first experience about web hosting and domains. Theories techniques and technologies that learnt throughout the MIT degree program was very valuable for this project. Future enhancements Delivery function has to added to the system because restaurant in planning to give that facility. Most of the customers suggested about mobile application and planning to implement that function also. Report generation part must be implemented more than this.

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