

“DAILY MEAL SOLUTIONS”

A Project Report Submitted
in Partial Fulfillment of the Requirements
for the Degree of

BACHELOR OF TECHNOLOGY

in

Computer Science and Engineering

by

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Under the Supervision of

Mr. Saumendu Bose

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Pranveer Singh Institute of Technology, Kanpur



to the

Faculty of Computer Science and Engineering

**DR. A. P. J. ABDUL KALAM TECHNICAL UNIVERSITY,
LUCKNOW**

May, 2022

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Certificate

This is to certify that Project Report entitled “ **Daily Meal Solutions** ” which is submitted by -

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in partial fulfillment of the requirement for the award of degree B. Tech. in Department of **Computer Science and Engineering** of **Pranveer Singh Institute of Technology**, affiliated to **Dr. A.P.J. Abdul Kalam Technical University, Lucknow** is a record of the candidates own work carried out by them under my/our supervision. The project embodies result of original work and studies carried out by the students themselves and the contents of the project do not form the basis for the award of any other degree to the candidate or to anybody else.

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DECLARATION

We hereby declare that this submission is our own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgment has been made in the text.

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We also do not like to miss the opportunity to acknowledge the contribution of all faculty members of the department for their kind assistance and cooperation during the development of our project. Last but not the least, we acknowledge our friends for their contribution in the completion of the project.

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ABSTRACT

In this busy, developing, and fast-moving society people have to live outside their homes and they have to depend on themselves or others for their daily meals in order to fulfill their daily requirements.

The Project is all about developing a fully functional website that provides food solutions to the people who are dependent on a tiffin for their meal. The students and working people who are living outside their home and continuing their studies or work, do not prefer to take time to cook their meal so they depend on tiffin services. People have to search a lot to get a good and hygienic service, which we will be ensuring. As it will be an online platform so it will be easy to find and easy to order for the tiffin services.

The website will be specific to the tiffin services, this will bring all the tiffin services online and will provide a variety of options for the consumer to look after services and then go for best of them.

The Project will have features to order for tiffin services on the daily basis. There will be multiple interfaces to make the functioning of the website very easy, interactive and appropriate for everyone. The customer will get the tiffin to the doorsteps without any problem. The project will resolve the man effort for searching manually for the tiffin providers.

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LIST OF ABBREVIATIONS

HTTP	:	HyperText Transfer Protocol
DB	:	Database
POS	:	Point of Sale
MERN	:	MongoDB, Express, React, Node
HTML	:	Hypertext transfer protocol
CSS	:	Cascading Stylesheet
JS	:	JavaScript
SWOT	:	Strength, Weaknesses Opportunities and Threat
RAM	:	Random Access Memory
JSON	:	JavaScript Object Notation
IDE	:	Integrated Development Environment
SQL	:	Structured Query Language
API	:	Application Programming Interface

CHAPTER 1

INTRODUCTION

1.1 Problem Statement

In this busy, developing, and fast-moving society people have to live outside their homes and they have to depend on themselves or others for their daily meals in order to fulfill their daily requirements. The major area is of students who are preparing for their higher studies outside their place, in that case food services become a necessity of that person.

Today, many tiffin providers use traditional restaurant ordering systems to serve their customers. In a traditional ordering system, employees write down the food ordered by the customer. After that, the paper goes to the kitchen and the cook starts cooking and then packs the food in order to deliver that. This caused some inconvenience. Staff may make a mistake when writing down an order. If the staff writes in a hurry, the handwriting may be difficult to understand. Staff may lose the purchase order or the customer may receive the wrong invoice.

The Project is all about developing a fully functional website that provides food solutions to the people who are dependent on a tiffin for their meal. The students and working people who are living outside their home and continuing their studies or work, do not prefer to take time to cook their meal so they depend on tiffin services.

One of the problems faced by the service providers that use of the traditional ordering system is the customers do not know the time for preparation for the food. Some of the customers might have next schedule after their lunch or dinner. They need to know the time preparation so that they can plan their schedule wisely. Especially when there are lot of customers, the customers might think their order has been forgotten if their food still has not yet been served in a long time. It will be good if there is an estimated time to prepare the food shown to the customers.

People have to search a lot to get a good and hygienic service, which we will be ensuring. As it will be an online platform so it will be easy to find and easy to order for the tiffin services.

The website will be specific to the tiffin services, this will bring all the tiffin services online and will provide a variety of options for the consumer to look after services and then go for best of them.

1.2 Proposed Solution

As we have described the main problem in the above statement, for the solution we would like to create a tiffin system where any person will be able to order any desired tiffin available in their area or any tiffin from another area. We would like to provide users with the option to customize tiffin within the given budget on different days of the week. They even can order different tiffin from different vendors on different days of the week and according to their order their money will be deducted from their account.

They will be provided with different packages which they can choose and subscribe as it will contain option that if they want to order from different vendors or want different tiffin on different days or they also want customize the tiffin and with that every pack will be having different subscription package.



Figure 1 : Daily Meal Solution

1.3 Objective

Our main objective is to create a Web App named *Daily Meal Solution*. The user will be provided with a Webapp with interactive interface where they will be provided with all the option to explained in the proposed solution. At first, they will be provided with the login/signup option which will be helpful to interact further with webapp where they will be provided with the different option of subscribing different packs according to their own needs. They will be having the option of changing the the tiffin, customize it or to cancel any subscription if they are not satisfied with the particular service. The main goal is to provide user with opportunity that they easily access all the functionality described in the proposed solution

1.4 Proposed Approach / Study

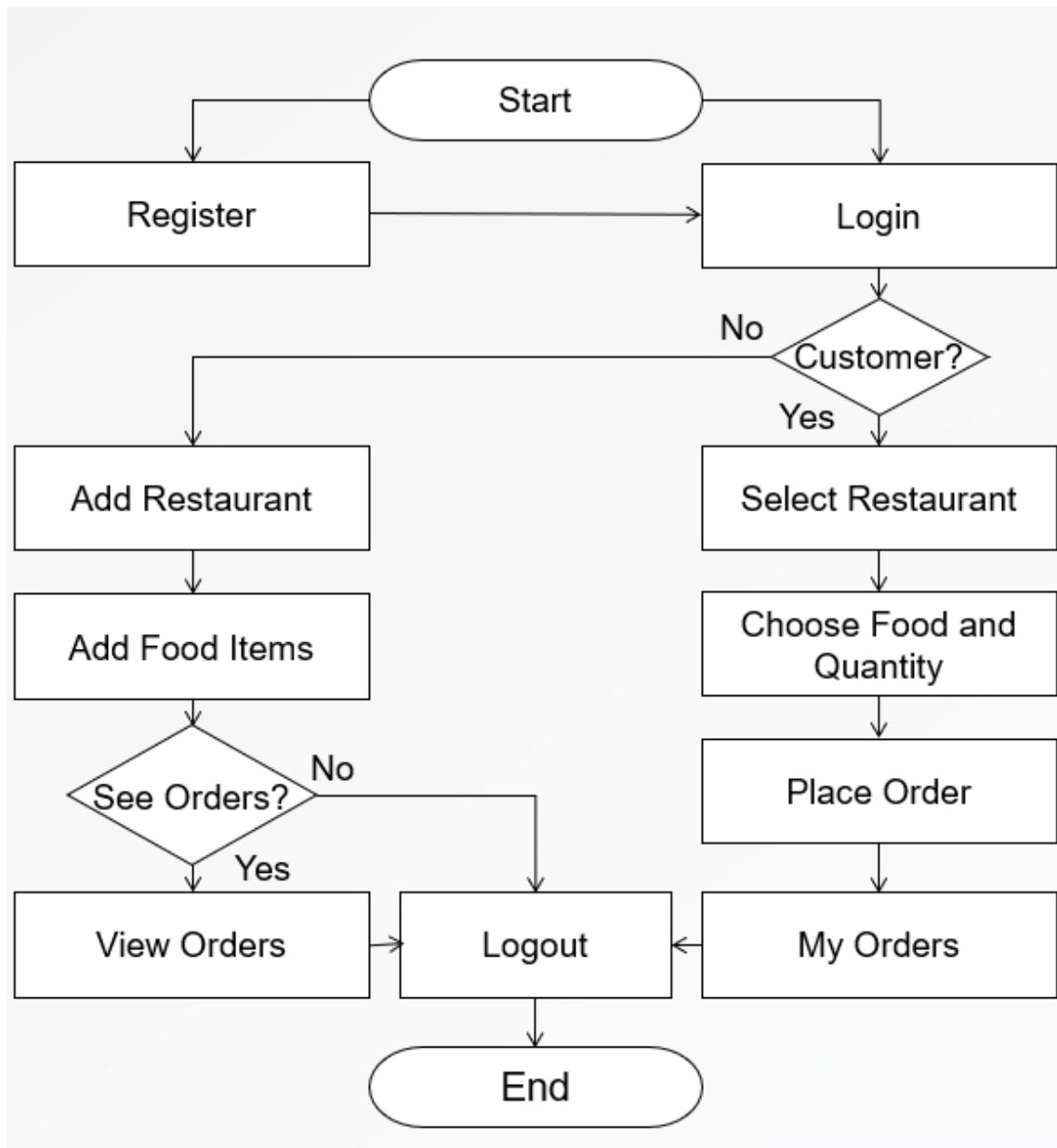


Figure 2 - System Flowchart of Daily Meal Solution

Figure 2 shows the system flowchart of Daily Meal Solution. When the customer open the Webapp he would see the menu of the tiffin. Then, the customer will be able to order the food. After the customer fill the quantity and place the order. The tiffin vendor will receive the order and process it further. Then, after some time the tiffin will be delivered to the customer accordingly. When the tiffin is delivered the status will be changed.

CHAPTER 2

LITERATURE REVIEW

2.1 Wireless Food Ordering System

Today, the Internet is everywhere. People use the Internet to chat with family and friends, communicate with colleagues, search for information, and more every day. The internet is very convenient for people because almost everything can be done over the internet. Telecommunications and the Internet are growing rapidly. There are several industries that are beginning to apply this technology to their businesses. This will help make their business more efficient.

Users can access data and services from remote servers. This allows users to access the database over the network or the Internet. Most handheld devices support this wireless technology because users can access the database and retrieve data. Today, people use mobile devices to manipulate and access data and information. This is because mobile devices are cheap and small. PDA, a mobile information terminal, is a mobile device suitable for business applications. You can access your data and information from a remote location.

In this ordering system, the tiffin vendor will take the order from the user by using the webapp. Then the vendor will send the order to the kitchen. If the order is processed the user will be notified accordingly. When the tiffin is ready, it will be served to the user. This system will help the vendor to reduce wastage of food and user will get their desired food.

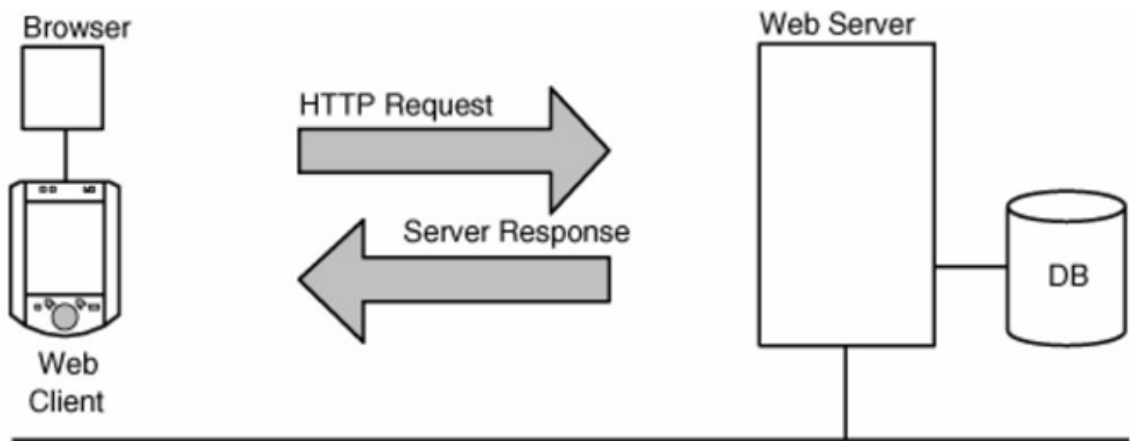


Figure 3 - Applications: Architecture, Design and Development

The strength of this system is that it reduces time. Users don't have to search for a new vendor and vendors also don't have to search for the customer. Customers can simply search for the tiffin they desire and order it. This system also helps in reducing food wastage because vendors will always know how many tiffins they have to make and what is the need for that.

The weakness of this system is that it does not support a real-time feedback policy. Users are not contacting the vendor directly; they are ordering through a medium.

As compared to the existing system, the proposed system will reduce time. And for the real-time feedback, they will have to directly contact the vendor.

2.2 Point of Sale

Point of sale system, which is also known as POS system, is a combination of hardware and software that allows the staff to perform some tasks. There are a lot of businesses using this system to operate their daily transactions including restaurants, hospitals and hotels.

The point-of-sale system includes some hardware such as printers, handheld devices, terminals and cash registers. The indicator bar is used to display the price of an item when it is scanned. The printer is used to print the receipt after the customer has made the payment. Handheld devices are used to accept credit card payments from customers. The terminal is the main screen used to enter transaction details. The

cashier is used to store cash. When employees receive cash from customers, they keep the money in the register.

2.3 Online Ordering System

The Internet is very famous and plays a big role in people's lives today. People use it not only for communication, but also for educational and work purposes. Nowadays, many companies are starting to sell their products online because people prefer to buy them online. People also like to buy goods through the internet, as the internet brings a lot of convenience to people.

The industry has also begun to use the Internet to attract more customers. Some vendors may have started using an online ordering system to allow customers to place orders. When a customer places an order over the internet, the data and information is sent to the vendor's database. The customer's order is also displayed on the vendor screen.

This online ordering system brings convenience to customers. Customers can choose their favorite tiffin on the Internet. They can look at the vendor's menu and order through the website. The vendor after receiving the order will deliver the food to the customer's home. Meals can be paid in cash, credit card or UPI.

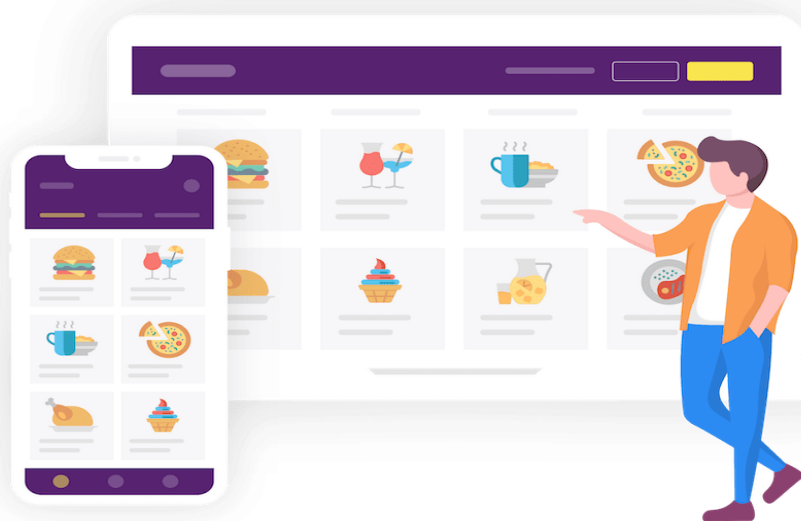


Figure 4 - Online Ordering System

The strength of this system is its flexibility. Customers can order food anytime, anywhere. Customers can place an order simply by accessing the internet using their mobile device or laptop. They don't have to waste time going to restaurants to order. You don't even have to contact the vendor. This has saved our customers time.



Figure 5 - Real life implementation

The limitation of this system is that not everyone uses the Internet. Some older people do not know how to use the Internet. Therefore, you cannot access the internet to place an order. This system does not serve all types of customers. In addition, this system relies on the internet. You will not be able to access the website if you are not connected to the internet or if your service provider is under maintenance. We apologize for the inconvenience.

CHAPTER 3

FEASIBILITY STUDY

A **feasibility study** should be conducted after the project is announced and before work begins. This study is part of the project planning process. In fact, for some projects, this is often done in combination with a SWOT analysis or project risk assessment.

The feasibility of a project can depend on several factors, including the cost of the project and the return on investment. H. Whether the project generated sufficient income or sales from the consumer.

However, feasibility studies are not only used for projects that measure and predict monetary gains. Feasible may mean that it depends on the industry and the goals of the project. For example, feasibility studies can help determine if a hospital can generate sufficient donations and investment funds to expand and build a new cancer center.

Feasibility studies also help develop new businesses, such as how a company works, potential barriers, competition, market analysis, and determining the amount and sources of funding needed to grow a business. Feasibility studies target marketing strategies that can help convince investors and banks that investing in a particular project or business is a wise choice.\

Types of Feasibility Study:

1. Legal Feasibility
2. Economic Feasibility
3. Technical Feasibility
4. Operational Feasibility
5. Scheduling Feasibility

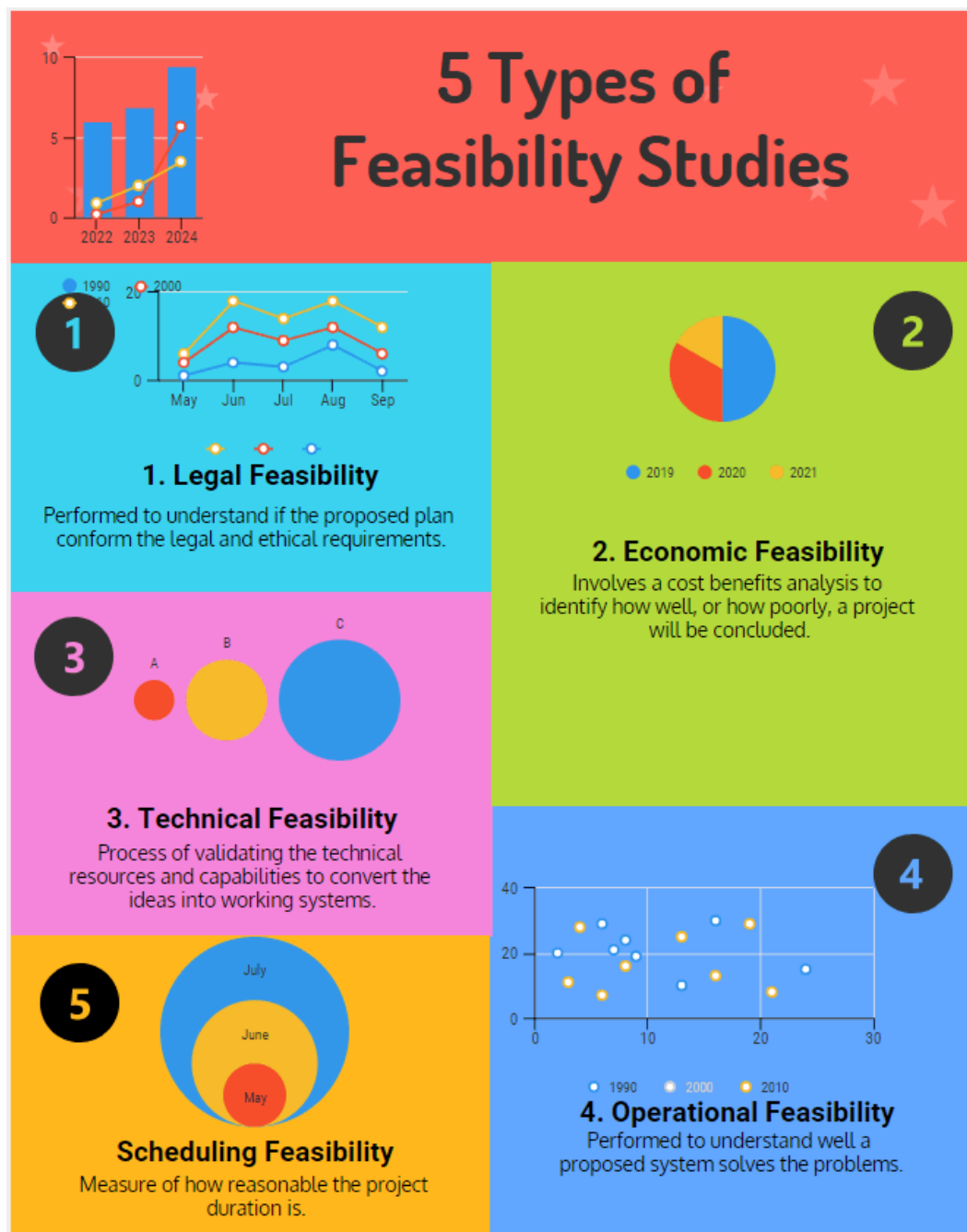


Figure 6 - Feasibility Study Types

3.1 Technical Feasibility

The project is technically feasible because all the tools and technologies needed to develop the project are readily available. The team has the technical skills and knowledge needed to create a project. Possible technical risks and limitations were also taken into account.

3.2 Operational Feasibility

This project is operational viable as it has achieved its goal of providing a digital platform for interaction between juniors, seniors and graduates. The project takes advantage of the opportunities identified during the scope definition to meet the requirements identified during the requirements analysis phase of project development.

3.3 Economic Feasibility

The project is economically feasible because it can be developed within the budget allocated to the project. Most of the tools and technologies used to develop projects are open source and free to use. This means that project development work is economically meaningful and justified.

3.4 Legal Feasibility

The project is legally viable because the idea of the project is unique and original. In addition, the tools and technologies used to develop the project are open source and free to use. No legal violations occurred during project development

3.5 Scheduling Feasibility

The project is scheduling feasible as all the work always completed on time and within various constraint. All the work allocated to different team members was always on time, there was no delay in any task.

CHAPTER 4

REQUIREMENTS AND SPECIFICATIONS

Project requirements are the characteristics, features, and tasks that a project must complete in order to be considered successful (or at least completed). They provide all stakeholders with a clear set of parameters to work on and set the various goals that stakeholders must achieve.

Requirement elicitation is a way to investigate and determine system needs from users, customers, and other stakeholders. This method is sometimes referred to as "requirement gathering". Gathering requirements is not easy. Just asking what you want your system to do and what you don't want to do does not guarantee that you will get all the requirements of your users and customers. The purpose of this phase is to have a clear understanding of the customer or customer requirements and to systematically organize these requirements. Requirements can be documented in a variety of formats, typically including summary lists, and can include natural language documents, use cases, application history, or process specifications.

Requirement Elicitation process includes the following step in cyclic order -

- Requirement Discovery
- Requirement classification and organization
- Requirement prioritization and negotiation
- Requirement Specification

4.1 Functional Requirements

4.1.1 Hardware Requirements

- Processor: Minimum 1 GHz; Recommended 1.60 GHz or more
- RAM: Minimum 2 GB; Recommended 4 GB or more
- Hard Drive: Minimum 512 GB; Recommended 1 TB or more

- Ethernet connection (LAN) OR a wireless adapter (Wi-Fi)

4.1.2 Software Requirements

- Operating System : Windows 7 or More
- Browser : Any
- Database : MongoDB
- Frontend Development Technology : React.js
- Backend Development Technology : Node.js, Express.js
- IDE : VS Code (Community edition)

4.2 Non-Functional Requirements

4.2.1 Performance and Scalability

The project is scalable and the performance is also good as it is able to manage high workloads and also give the desired without any extra delay.

4.2.2 Portability and Compatibility

The project is compatible on all the major devices. There will be no problem if the Webapp get open in mobile, laptop, desktop or any major devices.

4.2.3 Usability

The project is very usable as all the options will be present for the customer through a interactive interface.

4.2.4 Maintainability

The project is well organized as the code section are easily distinguishable. If there is need of change it can easily be done by the programmer.

4.2.5 Security

The project is very secure as it is easy to access the data through external means.

4.3 Tools and Technologies Used

4.3.1 MongoDB

MongoDB is a document-oriented NoSQL database used for high volume data storage. Instead of using tables and rows as in the traditional relational databases, MongoDB makes use of collections and documents. It stores data JSON like documents.

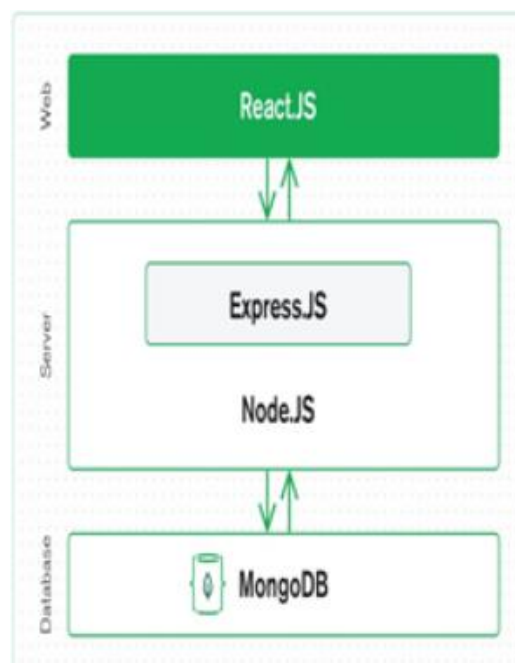


Figure 7 - Architecture

4.3.2 Express.js

Express.js, or simply Express, is a back end web application framework for Node.js, released as free and open-source software under the MIT License. It is designed for

building web applications and APIs. It has been called the de facto standard server framework for Node.js.

4.3.3 React.js

React is a JavaScript-based UI development library. Facebook and an open-source developer community run it. Although React is a library rather than a language, it is widely used in web development.



Figure 8 - MERN stack

4.3.4 Node.js

Node.js is a platform built on Chrome's JavaScript runtime for easily building fast and scalable network applications. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.

4.3.5 HTML

The HyperText Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets and scripting languages such as JavaScript.

4.3.6 CSS

Cascading Style Sheets is a style sheet language used for describing the presentation of a

document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.



Figure 9: HTML, CSS, JS logo

CSS, or **Cascading Style Sheet**, is responsible for the styling and looks of a website. In this course, you will learn CSS from the ground up. You will learn everything from basic skills, such as coloring and text, to highly advanced skills, like custom animations.

Note:

JavaScript is used by programmers across the world to create dynamic and interactive web content like applications and browsers. JavaScript is so popular that it's the most used programming language in the world, used as a client-side programming language by 97.0% of all websites.

CHAPTER 5

SYSTEM DESIGN

5.1 Flowchart

Flowcharts are diagrams that represent a process, system, or computer algorithm. They are widely used in many areas for documentation, research, planning, improvement and communication, often a complex process of clear and easy-to-understand diagrams. Flowchart procedure the algorithm presents the boxes in various shapes and logical forms. The flow is indicated by the connection arrow. Boxes are used to represent different box operations and arrows are used to indicate the order of these operations. Since then this is a visual representation of an algorithm that assists programmers / testers. Understand the logic of the program. Flowcharts (sometimes called flowcharts) are rectangular, oval, diamond, and Perhaps connected with many other shapes to define the nature of the stage arrows for defining flows and sequences. You can choose from simple hand-drawn figures and a comprehensive computer drawing diagram depicting multiple steps and routes. These are some points to keep in mind when creating a flowchart-

- Flow charts can contain only one start and stop symbol
- On-page connectors are referenced by number
- Off-page connectors are referenced alphabetically
- The general flow of a process is top-to-bottom or left-to-right.


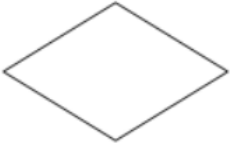


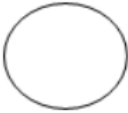




	Terminal/terminator	Indicates start/end of the flowchart or process
	Decision	Represents different decisions emerging from different points
	Action/Process	Represents an action or process
	Input/output	Holds the input/output information
	Connector	Indicates the flow connection to the next symbol
	Document	Indicates a report or a document
	Multiple document	Indicates multiple documents or reports
	Alternate	Indicates an alternate process to take place
	Preparation	Indicates preparation taken for the following step

Table 1: Flowchart Symbols

5.2 Project Flow Diagram

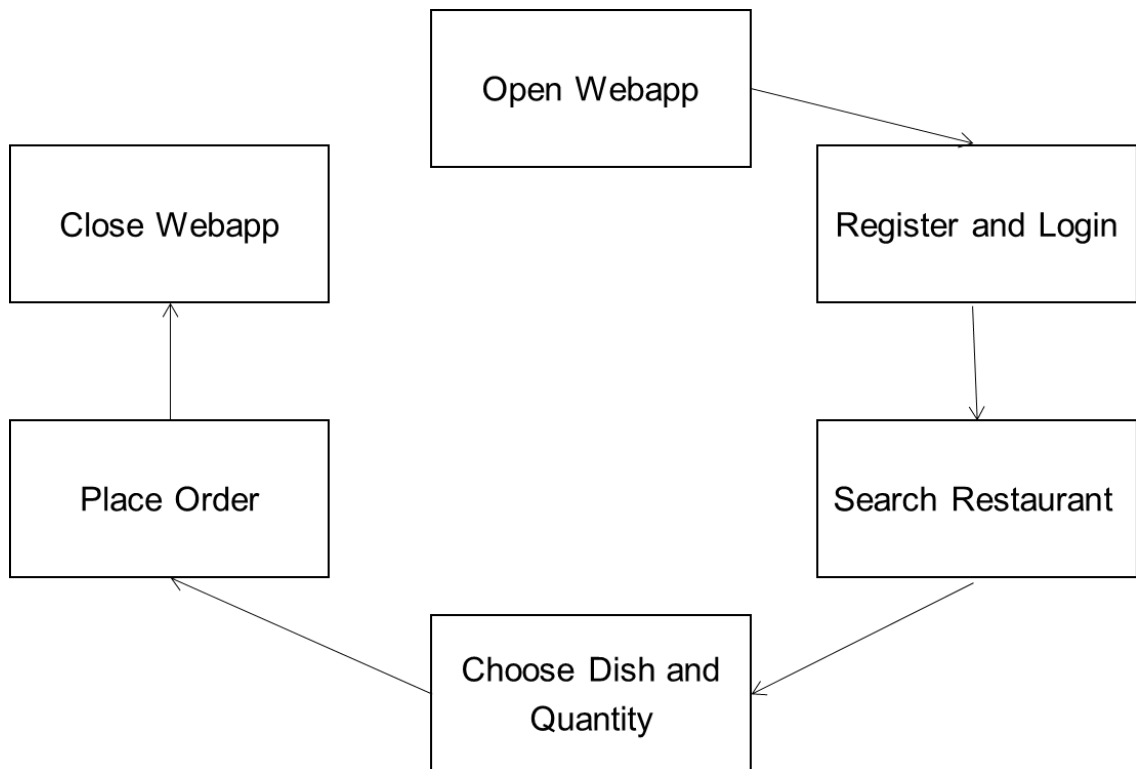


Figure 10 - Project Flow Diagram

Above figure shows the project flow diagram of the project. First user will open the webapp, if it's a new user he will login/register on the web app and then he will search for the tiffin he desire, he will choose the dish accordingly and give the quantity and place the order and the order will be received by the vendor and it will be processed accordingly.

5.3 Use Case Diagram

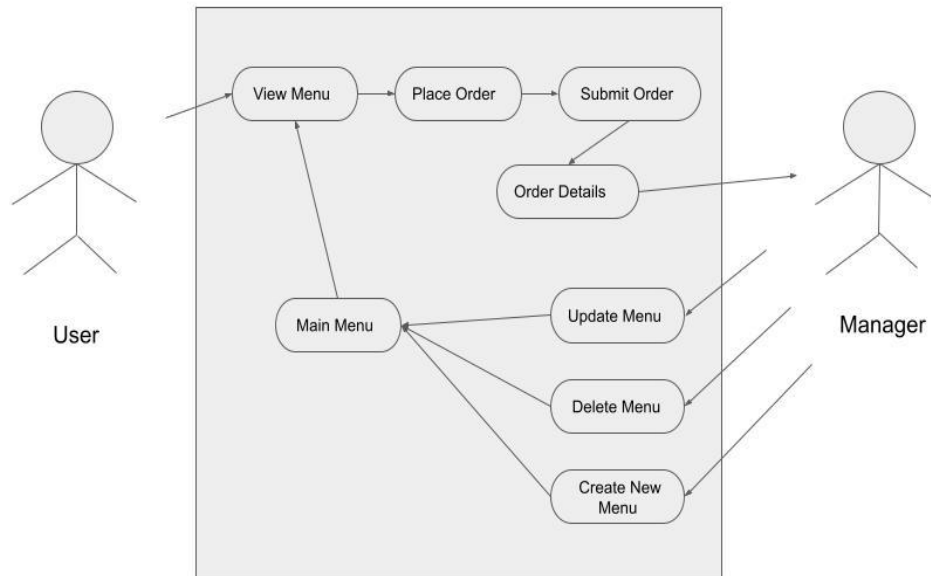


Figure 11 - Use Case Diagram

Above figure shows the use case diagram for the Daily Meal Solution. There are some function which was provided are:

- **Login**

The existing user will have to login as it will be helpful to verify the user is a customer or restaurant manager.

- **Register**

The new user will have to register on the website either as customer or as restaurant manager.

- **View Menu**

The user can view the menu through this functionality. They can see the menu according to different category or for different tiffin.

- **Order Food**

The customer can order the food after viewing the menu. They need to enter the quantity of the food.

- **Create Menu**

The restaurant manager can create the whole menu after registering on the webapp. When the menu is created, the customer can see the menu at their end.

- **Update Menu**

The restaurant manager can change the menu or make any changes to any dishes. Changes can be like change in price, change in minimum quantity etc.

- **Delete Menu**

The restaurant manager can delete the whole menu to create the new one, or they can delete a particular dish.

5.4 Activity Diagram

5.4.1 Login/Register

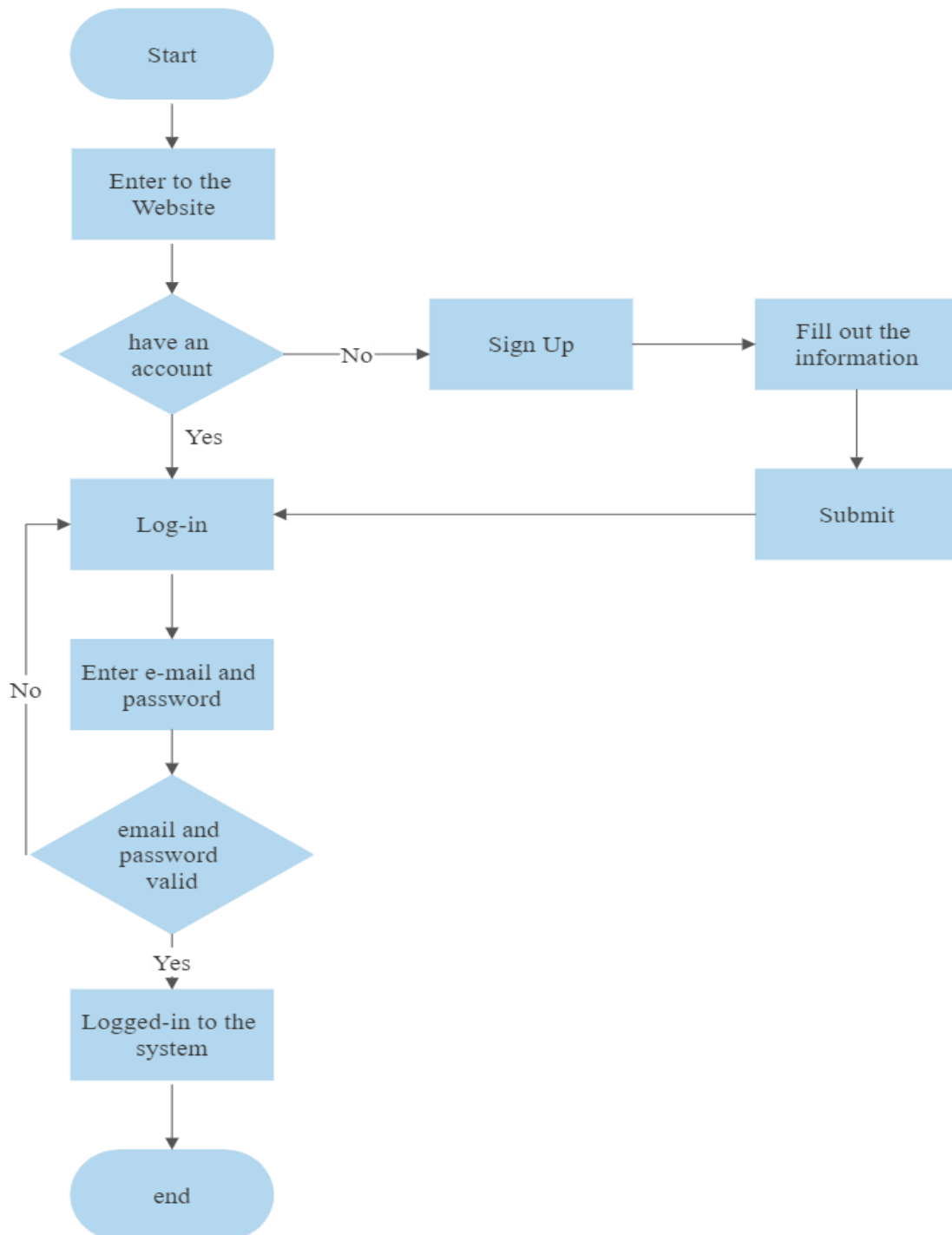


Figure 12 - Activity Diagram of Login/Register

When user open the webapp at homepage he will be having the option of login/register. If the user is new he can simply register on website either as manager or as a customer. If the user is existing user he can simply login to the account by providing his credentials. If the credentials are right he will be redirected further otherwise he will remain at login page.

5.4.2 Place Order

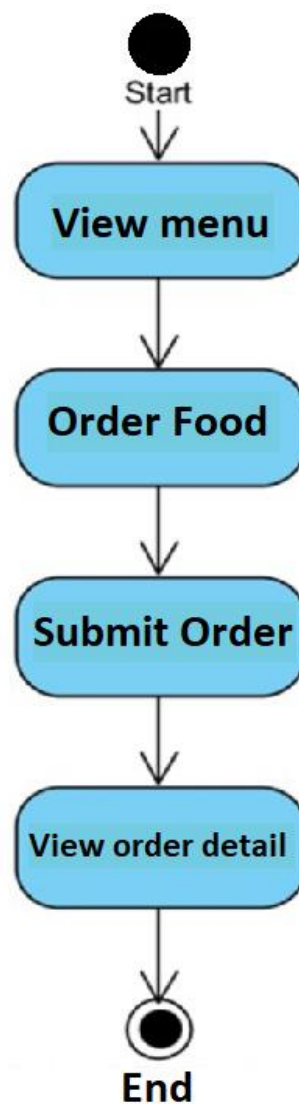
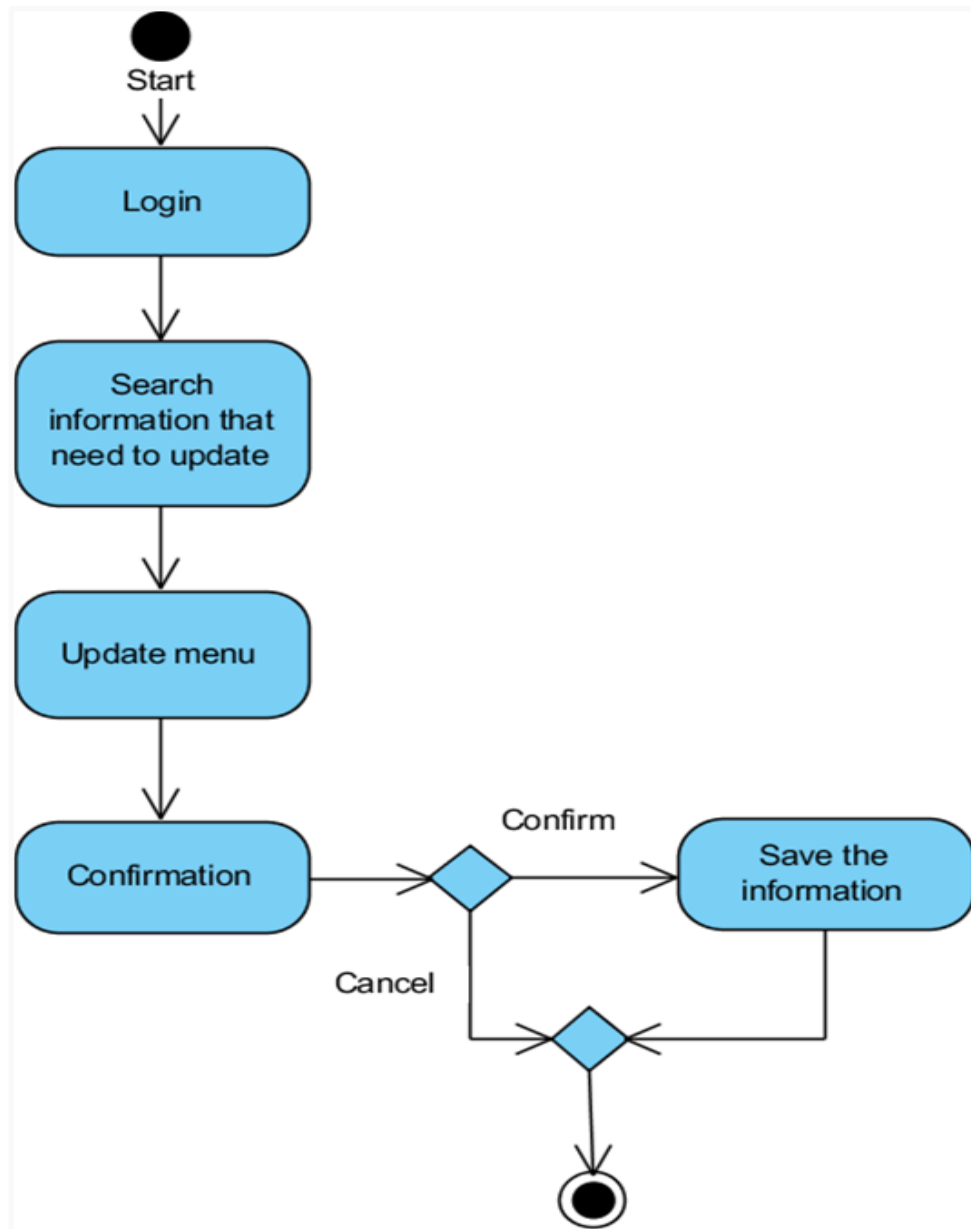


Figure 13: Activity Diagram of Place Order

After login customer can see the menu by view menu functionality and after deciding what to order he can simply give the quantity of every dish and submit the order to be processed further. After ordering the food he can see the order detail which was also got send to the vendor.

5.4.3 Update Menu



End

Figure 14: Activity Diagram of Update Menu

When the user login as a restaurant manager he have many option to handle his business. The one is that he can make changes to his order menu. The user simply search the item he want to change, then make the changes in it and then simply update the changes which can be viewed at customer side.

5.4.4 Delete Menu

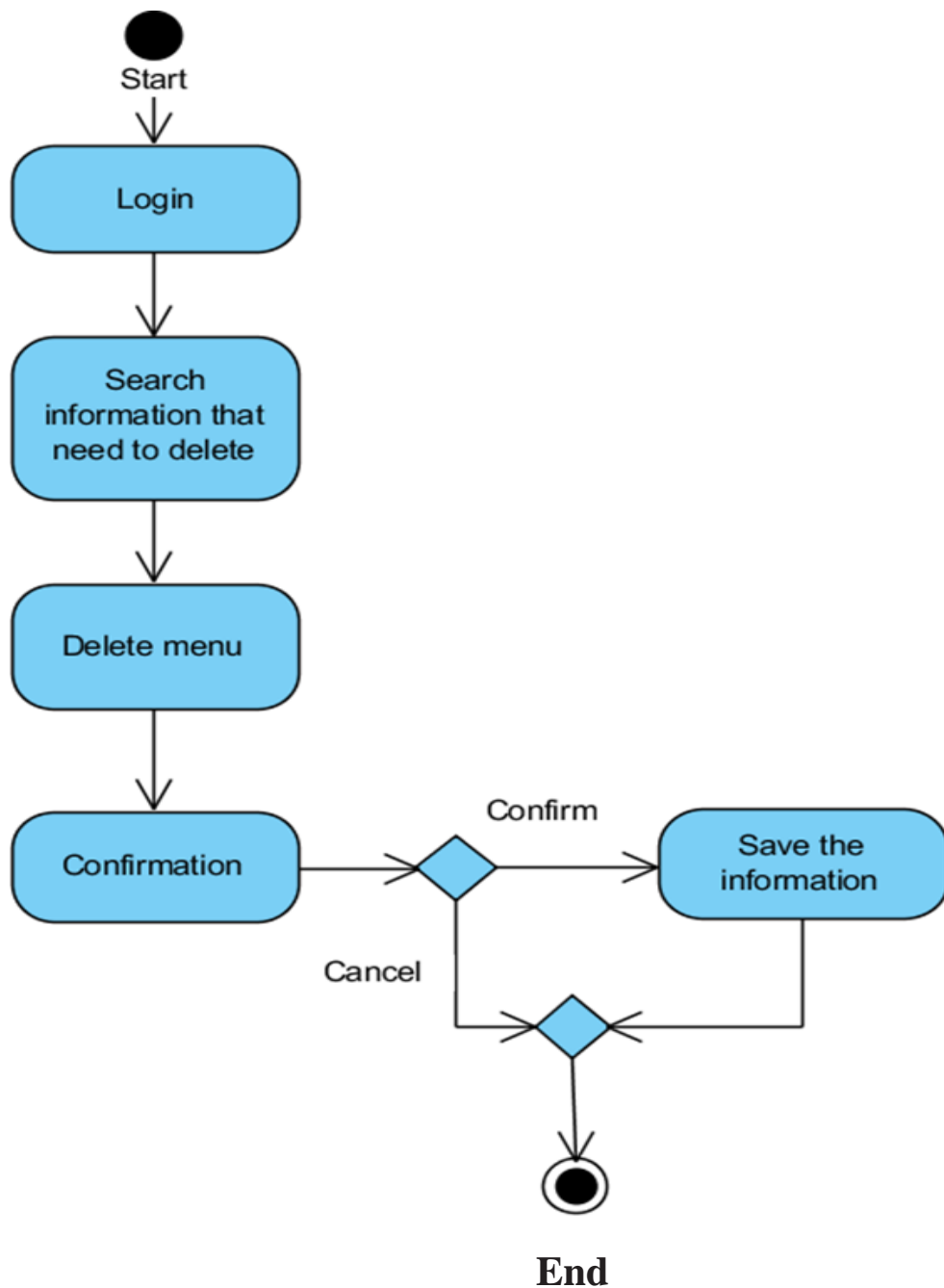


Figure 15: Activity Diagram of Delete Menu

When the user logged in as manager he can also delete the item in the menu or can delete the whole menu. The manager first can search the item he want to delete then simply delete the item or he can do the delete all option.

5.4.5 Create Menu

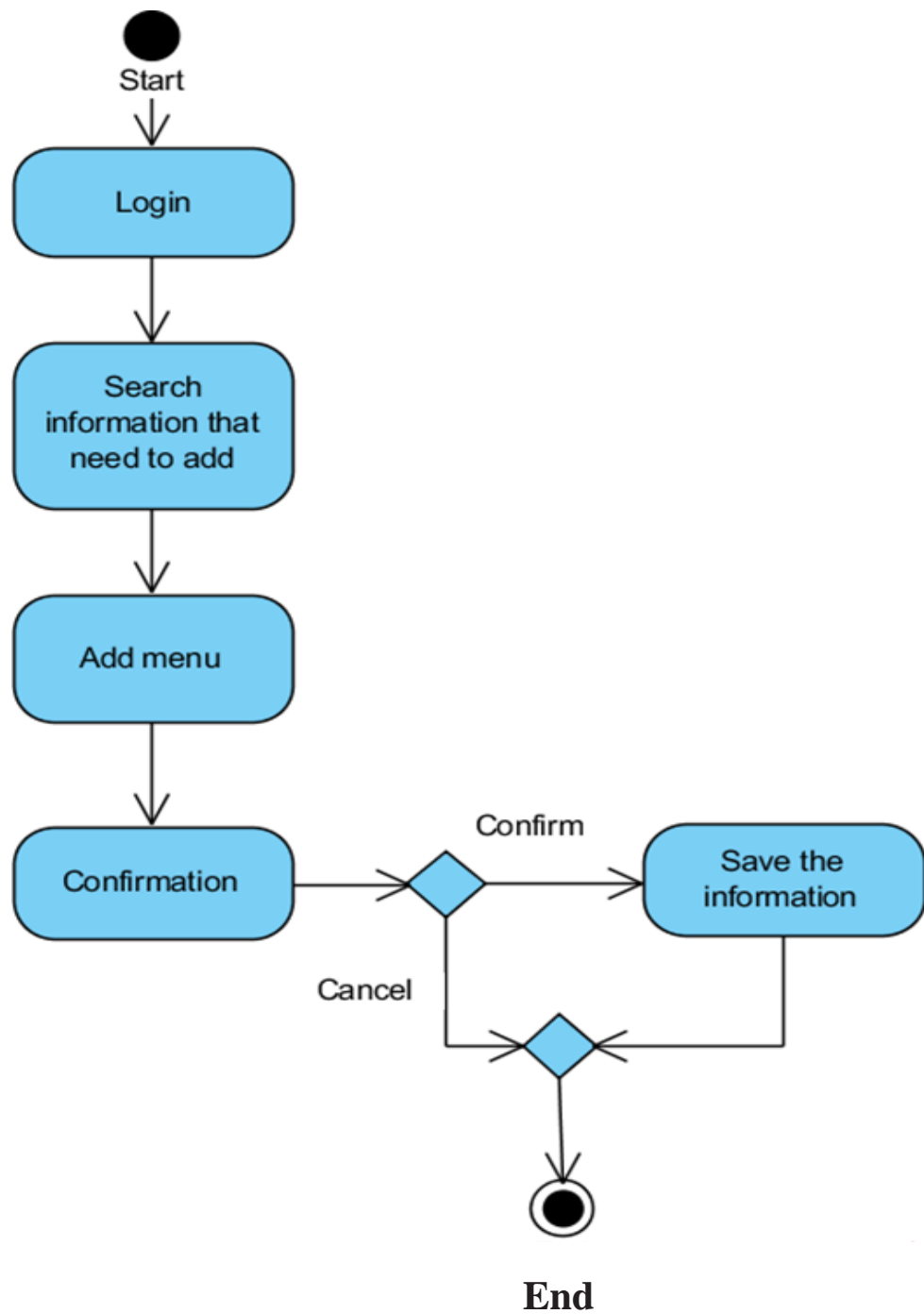


Figure 16: Activity Diagram of Create Menu

If the user logged in as a new restaurant manager he has the option to put his tiffin service on our website and can create the whole menu for that. If the user wants to change the whole menu, he can simply delete the whole menu and create the whole new menu. He has to fill in the detail of the item and price or any other detail with it and then simply confirm it and then the item will be added to his restaurant/tiffin service column.

5.5 Prototype Model

Prototype is a working model of software with some limited functionality. The prototype does not always hold the exact logic used in the actual software application and is an extra effort to be considered under effort estimation.

Prototyping is used to allow the users evaluate developer proposals and try them out before implementation. It also helps understand the requirements which are user specific and may not have been considered by the developer during product design.

Following is a stepwise approach explained to design a software prototype.

Basic Requirement Identification

This step involves understanding the very basics product requirements especially in terms of user interface. The more intricate details of the internal design and external aspects like performance and security can be ignored at this stage.

Developing the initial Prototype

The initial Prototype is developed in this stage, where the very basic requirements are showcased and user interfaces are provided. These features may not exactly work in the same manner internally in the actual software developed. While, the workarounds are used to give the same look and feel to the customer in the prototype developed.

Review of the Prototype

The prototype developed is then presented to the customer and the other important stakeholders in the project. The feedback is collected in an organized manner and used for further enhancements in the product under development.

Revise and Enhance the Prototype

The feedback and the review comments are discussed during this stage and some negotiations happen with the customer based on factors like – time and budget constraints and technical feasibility of the actual implementation. The changes accepted are again incorporated in the new Prototype developed and the cycle repeats until the customer expectations are met.

Prototypes can have horizontal or vertical dimensions. A Horizontal prototype displays the user interface for the product and gives a broader view of the entire system, without concentrating on internal functions. A Vertical prototype on the other side is a detailed elaboration of a specific function or a sub system in the product.

The purpose of both horizontal and vertical prototype is different. Horizontal prototypes are used to get more information on the user interface level and the business requirements. It can even be presented in the sales demos to get business in the market. Vertical prototypes are technical in nature and are used to get details of the exact functioning of the sub systems. For example, database requirements, interaction and data processing loads in a given sub system.

Software Prototyping - Types

There are different types of software prototypes used in the industry. Following are the major software prototyping types used widely –

Throwaway/Rapid Prototyping

Throwaway prototyping is also called rapid or close ended prototyping. This type of prototyping uses very little effort with minimum requirement analysis to build a prototype. Once the actual requirements are understood, the prototype is discarded and the actual system is developed with a much clear understanding of user requirements.

Evolutionary Prototyping

Evolutionary prototyping, also called breadboard prototyping, is based on building actual functional prototypes with minimal functionality in the beginning. The prototype

developed forms the heart of the future prototypes on top of which the entire system is built. By using evolutionary prototyping, the well-understood requirements are included in the prototype and the requirements are added as and when they are understood.

Incremental Prototyping

Incremental prototyping refers to building multiple functional prototypes of the various sub-systems and then integrating all the available prototypes to form a complete system.

Extreme Prototyping

Extreme prototyping is used in the web development domain. It consists of three sequential phases. First, a basic prototype with all the existing pages is presented in the HTML format. Then the data processing is simulated using a prototype services layer. Finally, the services are implemented and integrated to the final prototype. This process is called Extreme Prototyping used to draw attention to the second phase of the process, where a fully functional UI is developed with very little regard to the actual services.

Software Prototyping - Application

Software Prototyping is most useful in development of systems having high level of user interactions such as online systems. Systems which need users to fill out forms or go through various screens before data is processed can use prototyping very effectively to give the exact look and feel even before the actual software is developed.

Software that involves too much of data processing and most of the functionality is internal with very little user interface does not usually benefit from prototyping. Prototype development could be an extra overhead in such projects and may need lot of extra efforts.

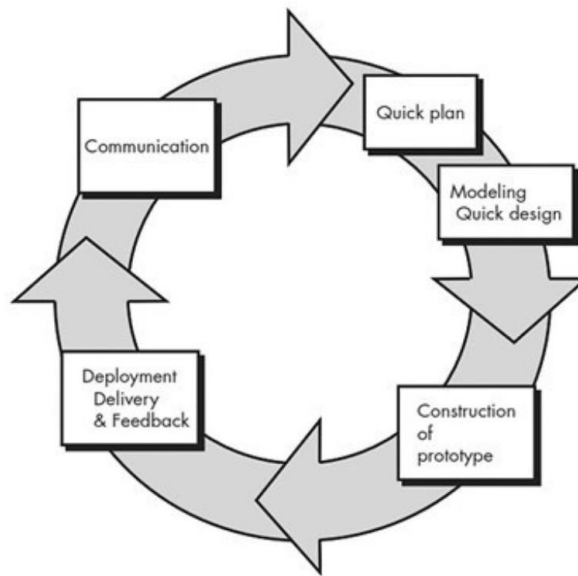


Figure 17 - Prototype Model

5.6 User Interface Design

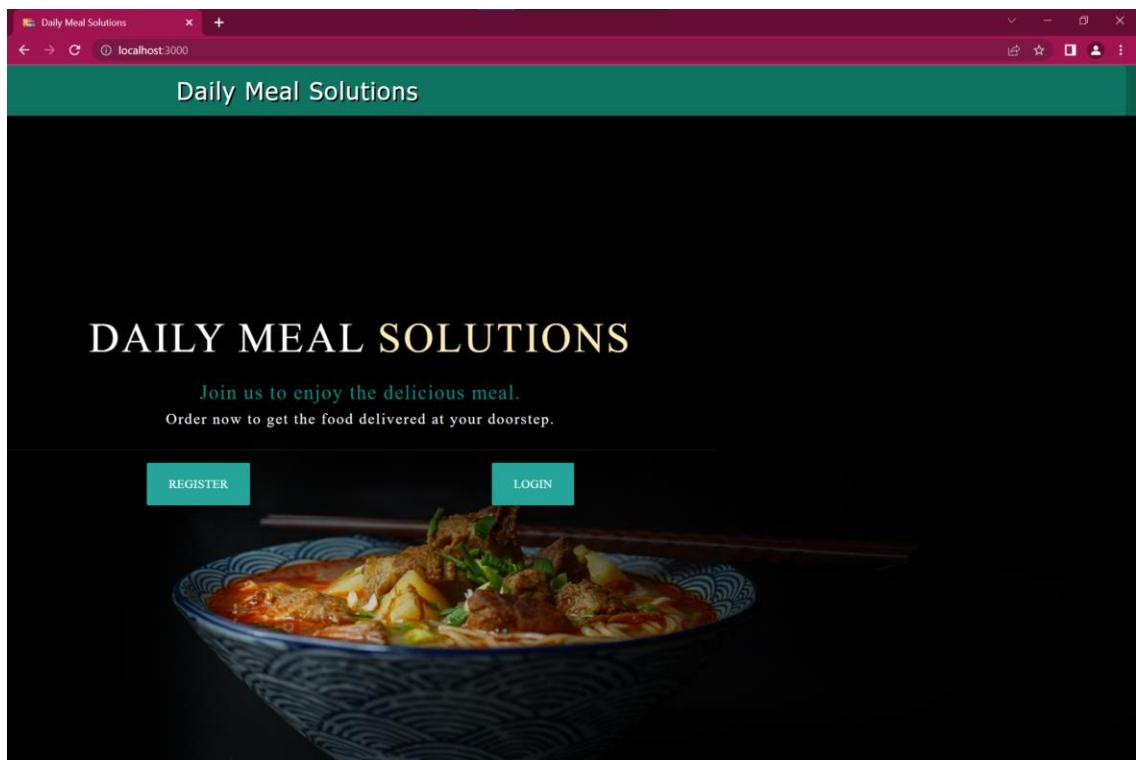


Figure 18 - Home Page

The home page of the project will have the registration and login options. The user who is new to the website will have to sign up or register as a new user to the website. If the already exists, he can login and perform the action as per his choice.

Daily Meal Solutions

Register Login

Register Your Account

Name

Email

Password

Confirm Password

Apply as

Choose your option

REGISTER

Already have an account? [Login](#)

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Made by 22B12 Team

Figure 19 - Registration Page

If the user is new he needs to fill the following details like name, email, password to register as a new user. After the registration he will only need to login using the email and password (created on the time of registration).

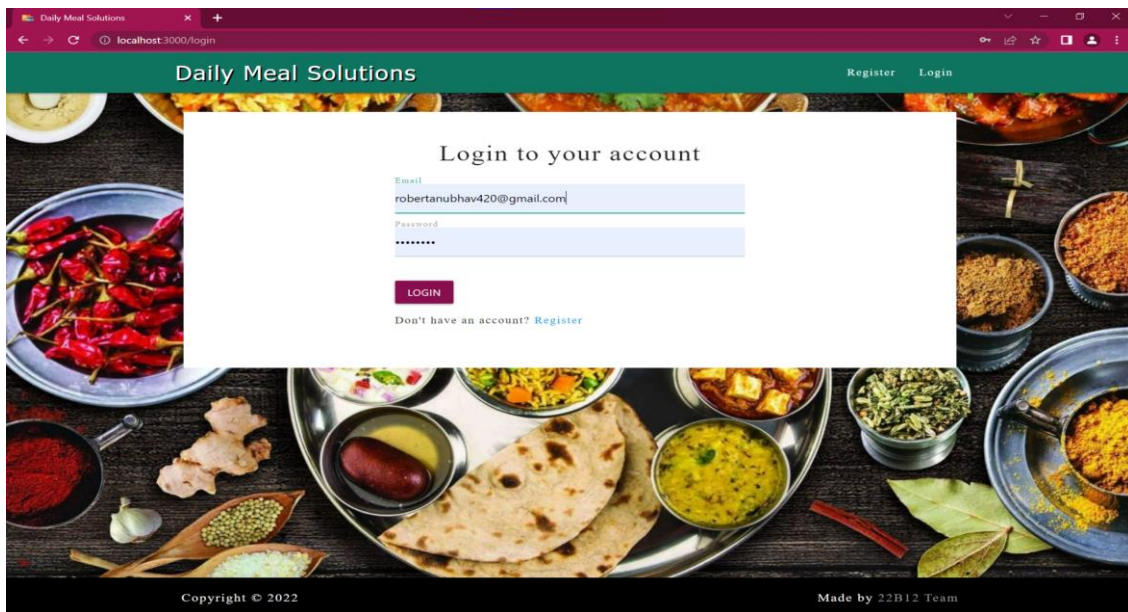


Figure 20 - Login Page

If the user needs to login to the website he needs the mail and password (created on the time of registration with the website). After logging in to the website he will be able to use the functionality based on the user account type.

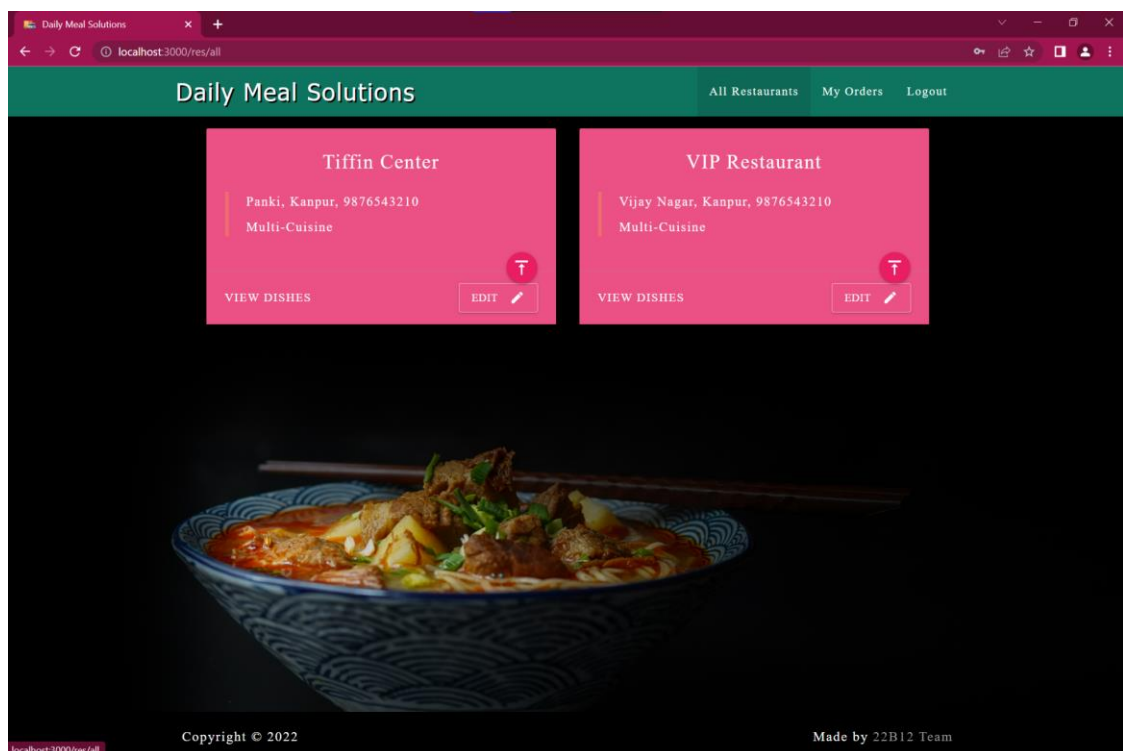


Figure 21 - Customer Homepage

The customer homepage will be shown after the customer login, the page will have the option of all the restaurants available and the user can select the restaurant and order the required food item. He can click on the view dishes icon to show the item available in a particular restaurant or tiffin provider. After the successful placement of order he may review the placed order in the My order section of the customer homepage.

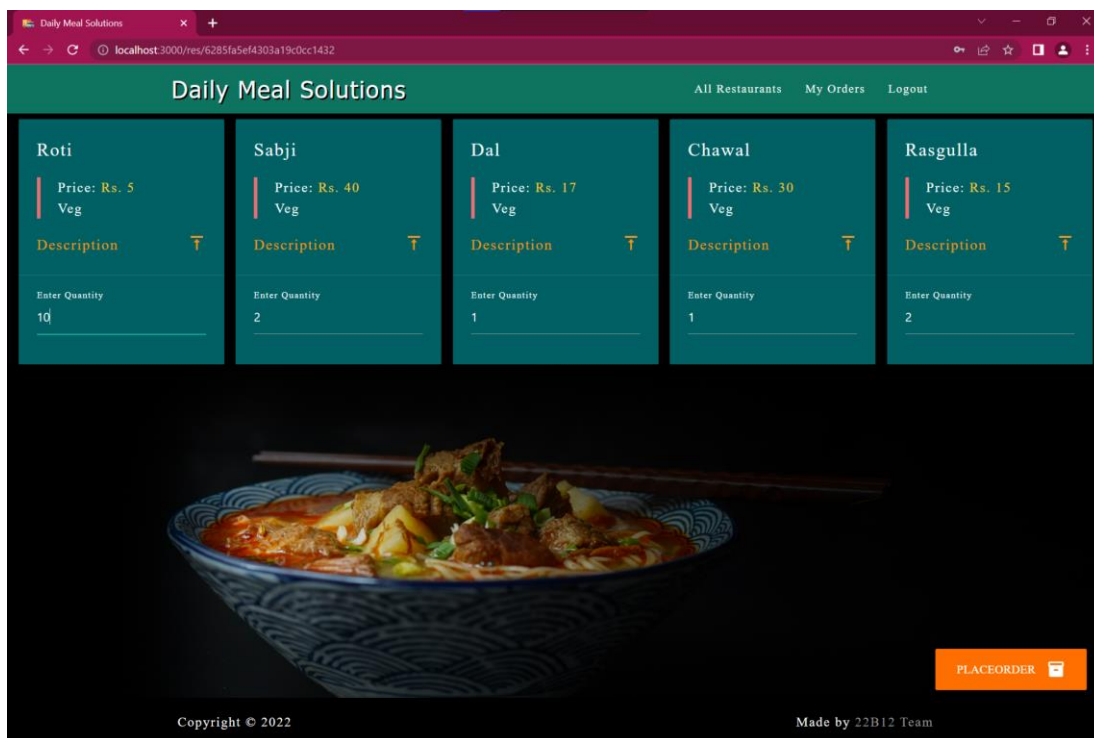


Figure 22 - Order Food Page

This is the page that will be shown after clicking on the view dishes button of the customer homepage and he will be able to select the quantity of item to be ordered and he may proceed to confirm the orders.

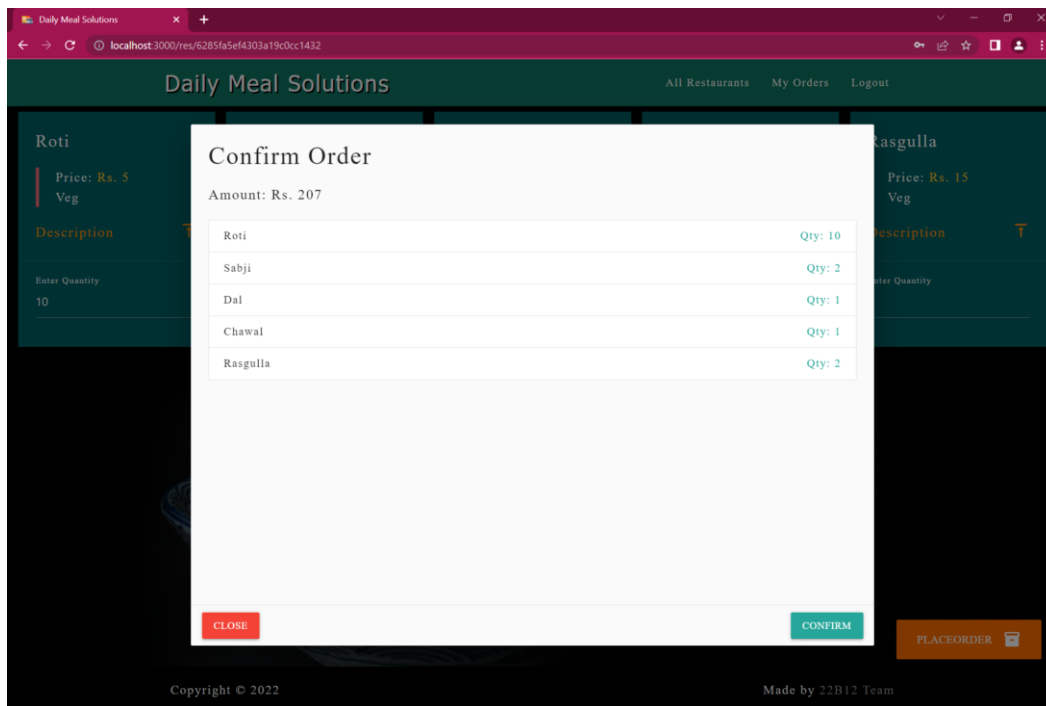


Figure 23 - Order Confirm Page

The above snapshot shows the page which shows the order confirmation for the made order from a particular restaurant. It will show the order and the order will have all the items along with the quantity of ordered food items and based on the price of items and the quantity the bill of the order is calculated and shown on the top of the confirmation page. Now you can confirm the order or you may cancel the order in order to edit the placed order.

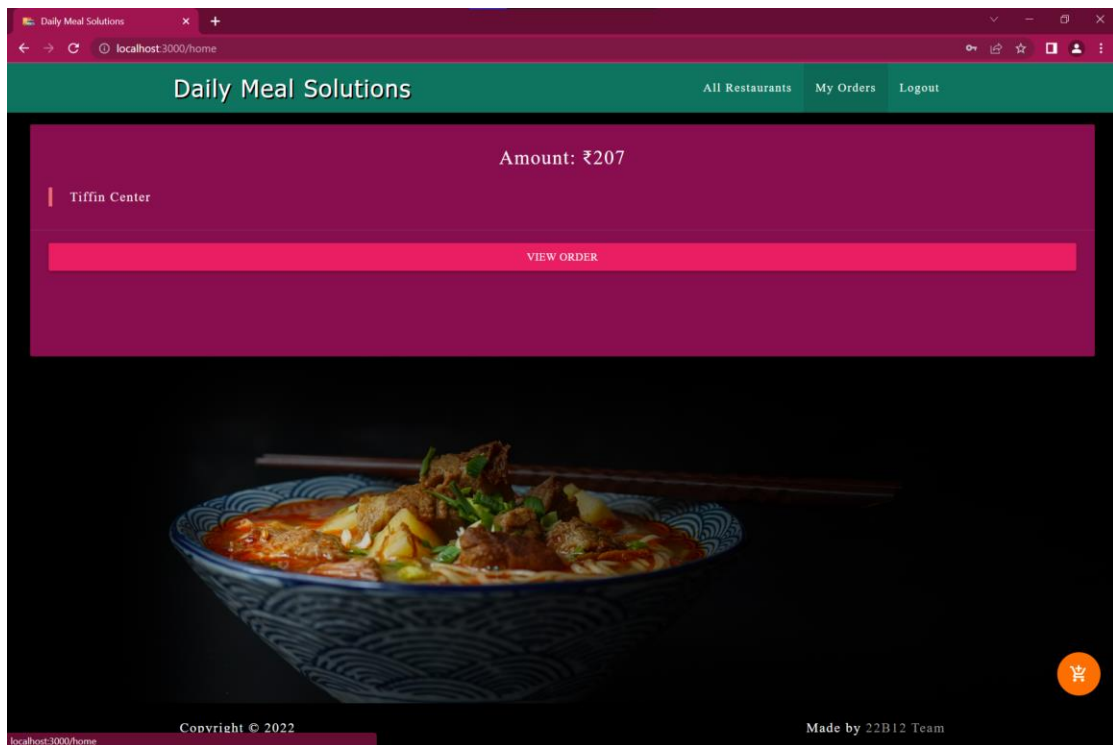


Figure 24 - View Order Page

To review the order of the customer he can login again and see the placed orders in the my orders section of the homepage of the customer after logging in. It will show the amount of the order and the restaurant name from where the order has been placed.

To view the order item click on the view order button which will show the placed order along with items and their quantity.

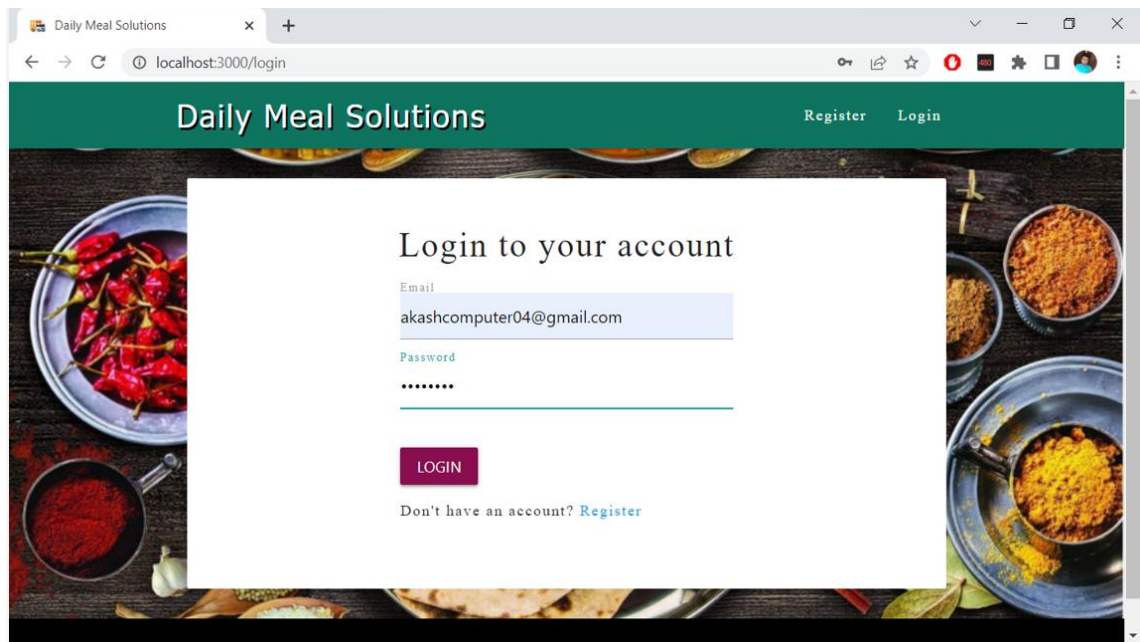


Figure 25 : Manager Login

The manager needs to login to the website with the mail and password (created on the time of registration with the website). After logging in to the website he will be able to use the functionality based on the user account type like a manager can add a restaurant and add the dishes in the restaurant along with their price.

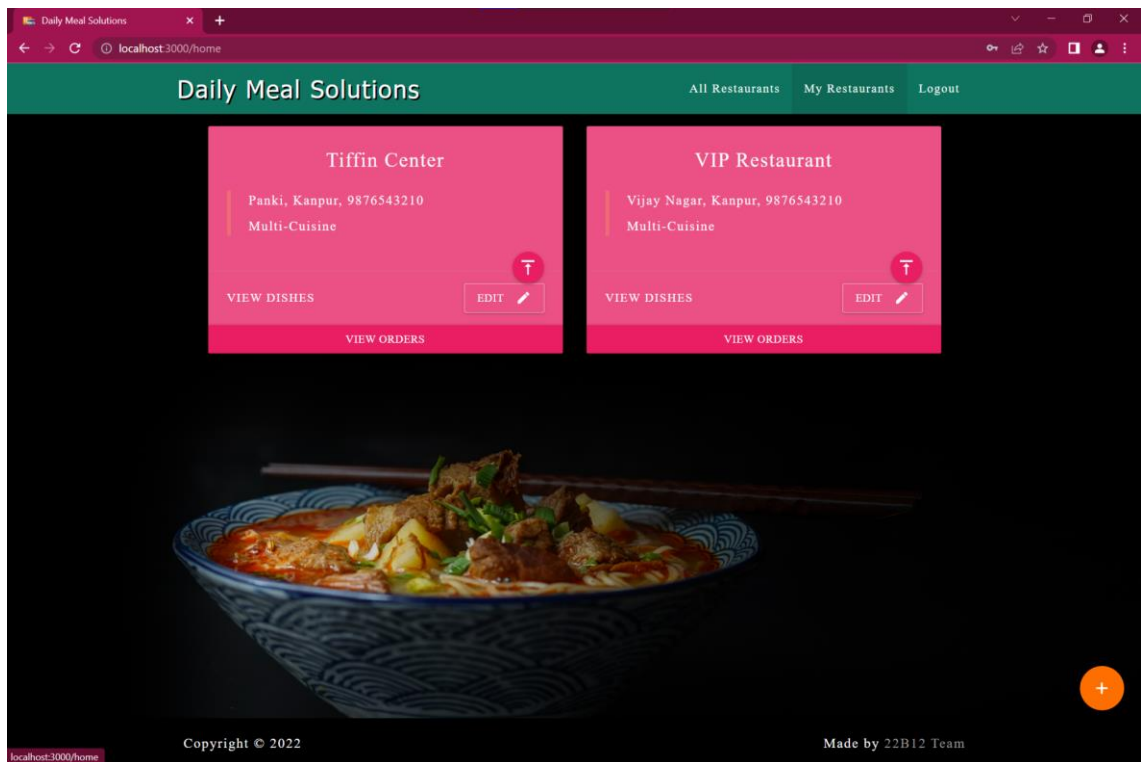


Figure 26 - Manager Homepage

Manager homepage will have the option of his added restaurants and he may see the dishes that he had and also can edit the price and add the new dishes based on his requirement. He can see the orders that has been made to a particular restaurant from the consumer side and can prepare the order and deliver accordingly.

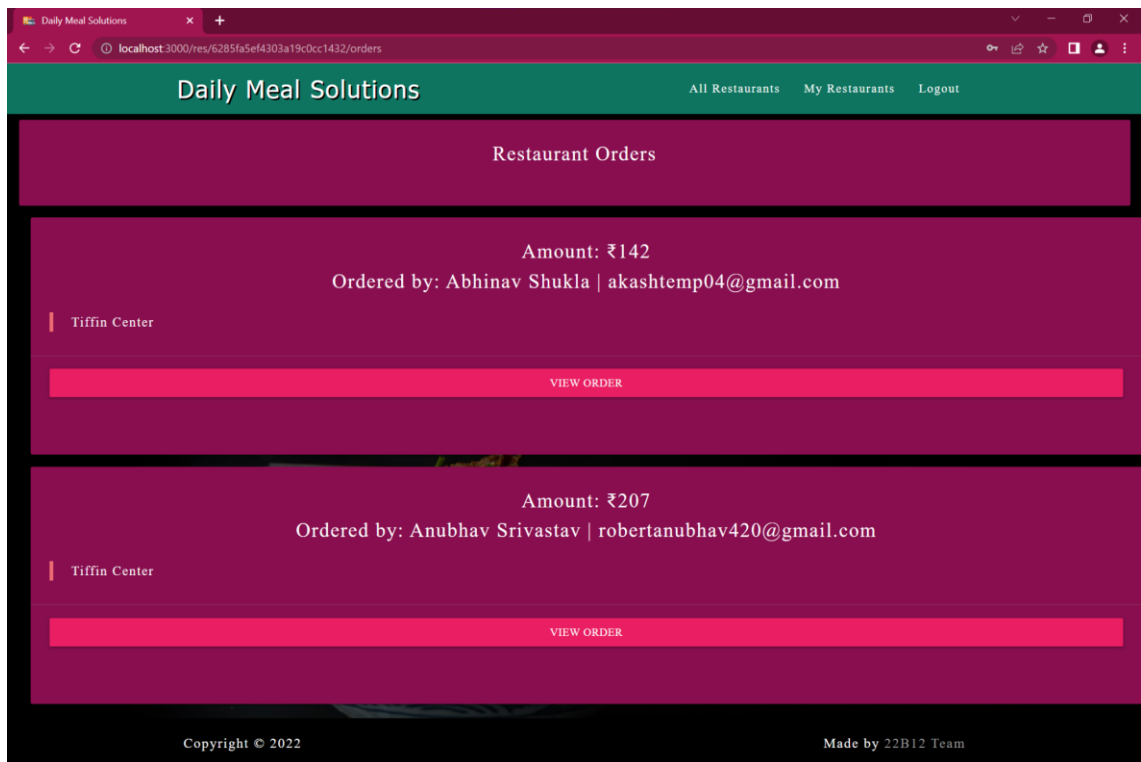


Figure 27 - Restaurant Total Order Page

To avoid the order errors and the confusion a manager can see all the orders in the order of their order time. He may sum all the amounts to match the daily incoming order and their amounts. He can click on the view order to see what the customer has demanded from the restaurant, For the same the next page has the attached snapshot.

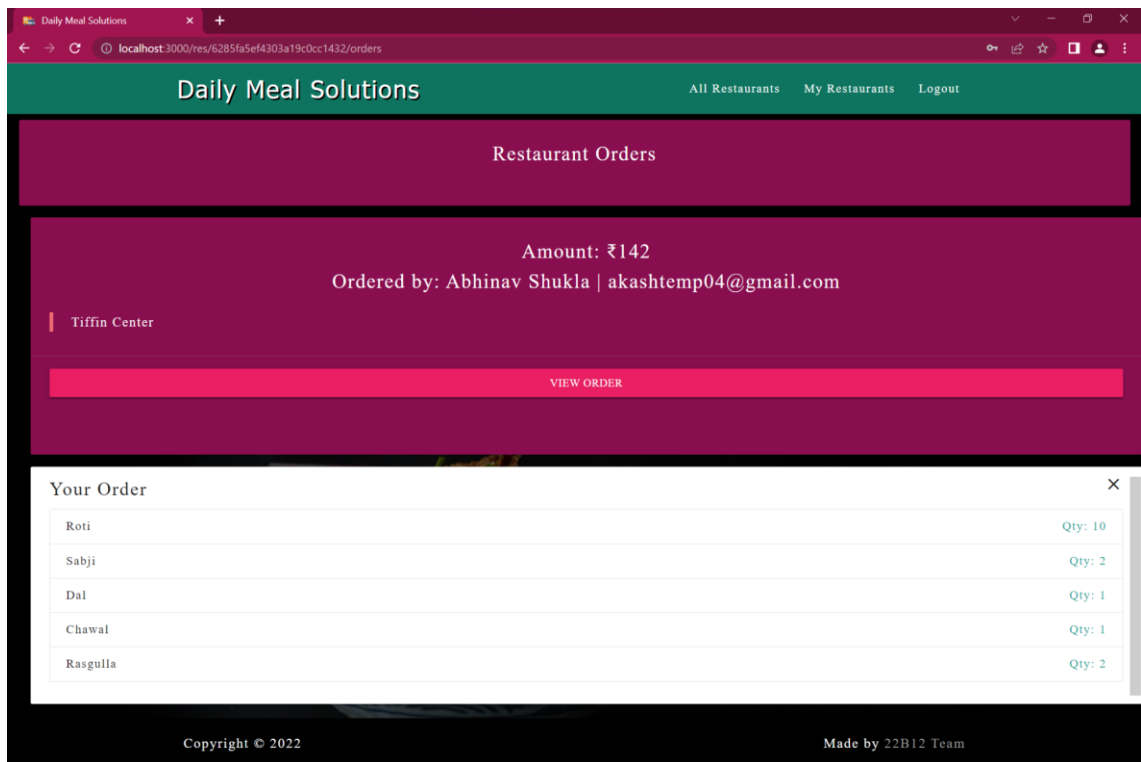


Figure 28 - Order Detail Page

He can click on the view order to see what the customer has demanded from the restaurant. The order will show the quantity of the items along with their name and customer name and other necessary details.

CHAPTER 6

METHODOLOGY AND TESTING

6.1 Methodology

The methodology used to develop this system is prototyping. Prototyping models can be designed quickly and inexpensively. Suitable when the user's needs are unknown. You can use this model to ensure that your system requirements are validated and clearly understood. As soon as the requirements become clear, the system will be developed from scratch. If you need the right knowledge, you can discard the actual prototype. Prototyping allows you to develop your system in less time than other methods. Using this methodology, users can receive feedback from end users and continue to work on developing systems that meet their needs.

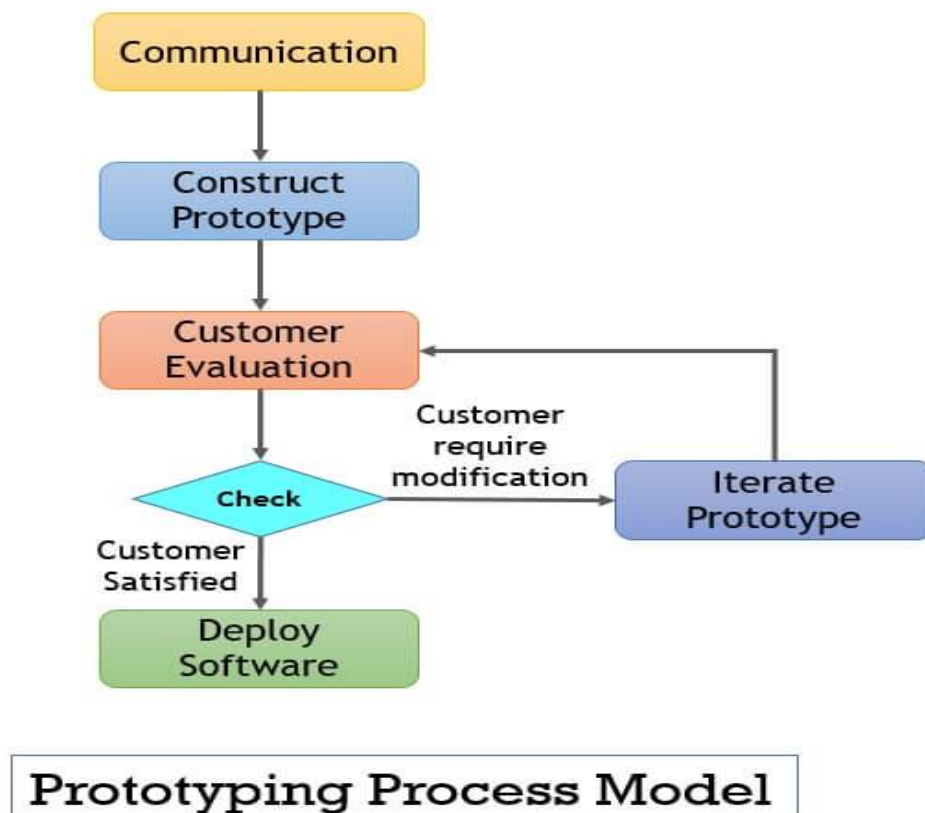


Figure 29 - Methodology Model

6.2 Implementation Model and Testing

The implementation of the system will be started after the end of the system design. The structure of the database will firstly build during development phase. Then, the server side and client side also built to allow the communication between customers and staff. During the testing phase, few test cases are carried out to test the system. This is to make sure the system is reliability.

6.3 Types of Testing

6.3.1 Black Box Testing

Black Box Testing is a software testing method in which the functionalities of software applications are tested without having knowledge of internal code structure, implementation details and internal paths. Black Box Testing mainly focuses on input and output of software applications and it is entirely based on software requirements and specifications. It is also known as Behavioral Testing.

The above Black-Box can be any software system you want to test. For Example, an operating system like Windows, a website like Google, a database like Oracle or even your own custom application. Under Black Box Testing, you can test these applications by just focusing on the inputs and outputs without knowing their internal code implementation.

Here are the generic steps followed to carry out any type of Black Box Testing - Initially, the requirements and specifications of the system are examined. Tester chooses valid inputs (positive test scenario) to check whether SUT processes them correctly. Also, some invalid inputs (negative test scenario) are chosen to verify that the SUT is able to detect them. Tester determines expected outputs for all those inputs. Software tester constructs test cases with the selected inputs. The test cases are executed. Software tester compares the actual outputs with the expected outputs. Defects if any are fixed and re-tested.

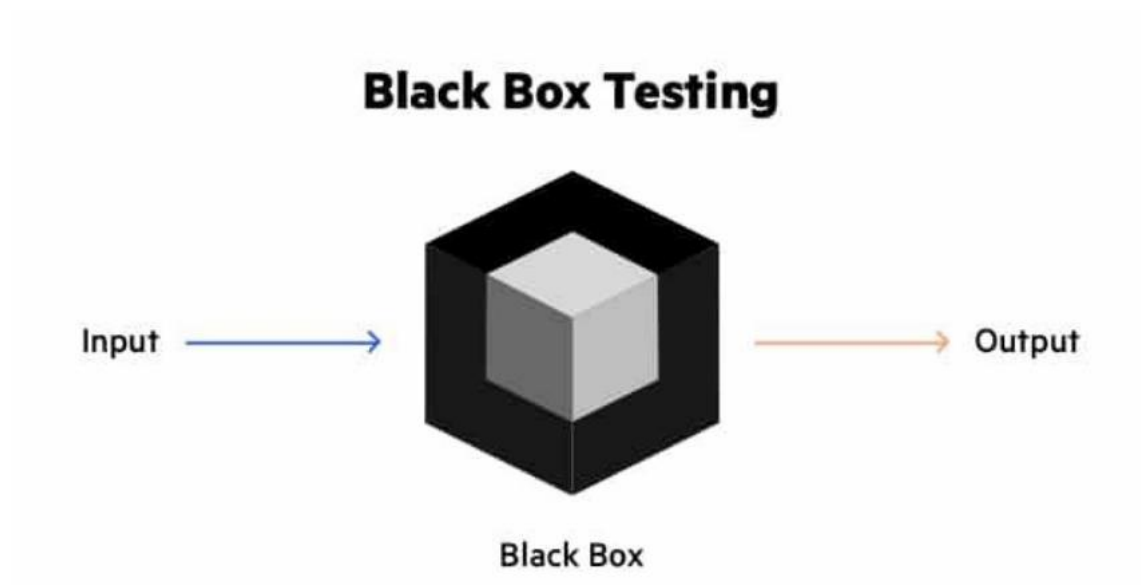


Figure 30 - Black Box Testing

6.3.2 White Box Testing

White Box Testing is software testing technique in which internal structure, design and coding of software are tested to verify flow of input-output and to improve design, usability and security. In white box testing, code is visible to testers so it is also called Clear box testing,

Open box testing, Transparent box testing, Code-based testing and Glass box testing. The term —White Box was used because of the see-through box concept. The clear box or White Box name symbolizes the ability to see through the software's outer shell (or —box) into its inner workings 42 White box testing involves the testing of the software code for the following:

Internal security holes
Broken or poorly structured paths in the coding processes
The flow of specific inputs through the code
Expected output
The functionality of conditional loops
Testing of each statement, object, and function on an individual basis



Figure 31 - White Box Testing

6.4 Unit Testing

A unit test is a way of testing a unit - the smallest piece of code that can be logically isolated in a system. In most programming languages, that is a function, a subroutine, a method or property. The isolated part of the definition is important. In his book "Working Effectively with Legacy Code", author Michael Feathers states that such tests are not unit tests when they rely on external systems: "If it talks to the database, it talks across the network, it touches the file system, it requires system configuration, or it can't be run at the same time as any other test."

Unit Testing 1: Login

Test Objective: To check whether user is able to login or not.

Input	Expected output	Actual output
Login by entering correct name and password.	The system let the user login.	The user login successfully.
Login by entering wrong password.	The system does not allow the user to login.	The user can't login to the system.
Login by does not enter any value.	The system does not allow the user to login.	The user can't login to the system.

Table 2: Login Testing

Unit Testing 2: Add new menu

Test Objective: To ensure the staff is able to add a new menu into the system.

Input	Expected output	Actual output
Enter all the information of the food	The food information is stored into the database.	The food information is stored into the database and the user can view the food in the list.
Enter few information of food	The food information will not store into the database.	The system does not allow the user to add new food.
Click Save button without entering any information	The food information will not store into the database.	The system does not allow the user to add new food.

Table 3: Adding new menu Testing

Unit Testing 3: Add new category

Test Objective: To ensure the providers add new category into the system.

Input	Expected output	Actual output
Enter the information of the category	The category information is stored into the database.	The category information is stored into the database and the user can view the category in the list.
Click Save button without entering any information	The category information is not store into the database.	The system does not allow the user to add new category.

Table 4: Adding new category Testing

Unit Testing 4: Order food

Test Objective: To ensure the customer is able to order the food.

Input	Expected output	Actual output
Enter the information of the quantity, table name and tick the checkbox.	The order is processed successfully.	The customer is allowed to make the order.
Enter the table name information only.	The order does not process successfully.	The customer is not allowed to make the order.
Enter the information without entering table name.	The order does not process successfully.	The customer is not allowed to make the order.
Click Order button without entering any information	The order does not process successfully.	The customer is not allowed to make the order.

Table 5: Ordering Food Testing

CHAPTER 7

CONCLUSION

7.1 Conclusion

Today, innovation brings a lot of convenience to people. Many companies use management systems to grow their businesses because they are efficient for both sellers and customers. The food and beverage industry has also begun to follow the trend of using management systems.

Many restaurants and tiffin providers that still use the traditional ordering system face some issues and problems, including: Waiter carelessness, misunderstanding of orders, waiter ugly handwriting, wrong invoice payment to customer, wrong delivery and delayed food delivery. All these issues cause dissatisfaction with the service of waiters and restaurants. This also affects the brand image of the restaurant or tiffin providers. Even with traditional ordering systems, it is difficult to keep up to date with customers. Employees need to remember the latest information so that they can be notified to their customers. If the staff forgets to inform you, you may be disappointed with the restaurant's service or providers' services.

In summary, this system helps to increase the productivity and efficiency of Tiffin delivery system and reduces the manual work of the staff. By having this ordering system, the customers can make their order through the system and get it delivered to their doorstep. Everything is done by the system and the staff just need to cook and deliver the food to the customers and wait for the customers to make the payment and look after his feedback to improve the quality of services.

7.2 Project Discussion

The Project is all about developing a fully functional website that provides food solutions to the people who are dependent on a tiffin for their meal. The students and working people who are living outside their home and continuing their studies or work, do not prefer to take time to cook their meal so they depend on tiffin services.

People have to search a lot to get a good and hygienic service, which we will be ensuring. As it will be an online platform so it will be easy to find and easy to order for the tiffin services. The website will be specific to the tiffin services, this will bring all the tiffin services online and will provide a variety of options for the consumer to look after services and then go for the best of them.

The Project will have features to order for tiffin services on the daily basis. There will be multiple interfaces to make the functioning of the website very easy, interactive and appropriate for everyone. The customer will get the tiffin to the doorsteps without any problem. The project will resolve the man effort for searching manually for the tiffin providers

7.3 Future scope and work

The website is providing a link between the tiffin providers and the consumers so in future work we will be updating the user interface as well as developing a functionality that will provide a daily base subscription of the food. It will work as we subscribe to online entertainment platforms like prime, Netflix, etc.

It will be like you pay one time for the whole month or a particular duration and receive the order on the daily basis. Your next order will depend on the previous order and also you can add any changes to your tiffin/ cart if you wish to change or add any other item in your tiffin. The tiffin providers will receive notification to deliver the food to the person who has subscribed on the daily basis (*i.e.* customer who has taken the subscription).

Future Scope of Application:

This application can be easily implemented under various situations. We can add new features as and when we require. Reusability is possible as and when required in the application. There is flexibility in all modules.

Scope of Software:

Extensibility: This application is extendable in various ways. The following principles enhance extensibility like avoid traversing multiple links or methods and distinguish

public and private operations.

Reusability: Reusability is possible as and when required in the application. We can update it to its next version. Reusable software reduces design, coding and testing cost by amortizing effort over several designs. Reducing the amount of code also simplifies understanding, which increases the likelihood that the code is correct. We follow both types of reusability: sharing of newly written code with a project and reuse of previously written code on new projects.

Scalability: The application is designed in such a way that it can be easily scaled in the future to meet the growing needs or demands as more and more users are connected with the platform.

We will also bring the small-scale service provider to the online platform to increase employment along with the variety of items on the daily meal solutions. Bringing them online will extend the area of working for the project.

The project will also have an android app as well as the web app that has been built already but will have more functionality in the future like subscription and live order tracking services to the **Daily meal solutions**.

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APPENDIX 1

The project is zipped and burned in a DVD that is attached along with the report.