

A Project Report on



“SPOON FOODS”

Submitted to the Saurashtra University in partial fulfillment of
the requirement for the award of the degree in
Bachelor of Computer Applications

Submitted by:

~Vivek Zala

~Ankita Bhuva

Under the guidance of
Mr. Prashil Sir

GLORIOUS COLLAGE OF COMPUTER SCIENCE

University Road Rajkot-360 005

DECLARATION

I here by declare that the project report entitled “SPOON FOODS” was prepared by me during the year 2022-2023 and was submitted to the Saurashtra University, in partial fulfillment of the requirements for the award of the Degree in Bachelor of Computer Applications. I also declare that this project report is original and genuine and it has not been submitted to any other University for the award of any degree, diploma or other similar titles or purposes.

Date:

Place: Glorious Collage

(Rajkot)

CERTIFICATE

ACKNOWLEDGEMENT

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INDEX

| CHAPTER | | CONTENTS | PAGE NO. |
|---------|------|---|----------|
| 01. | | INTRODUCTION | 1 |
| | 1.1 | Objective | 2 |
| | 1.2 | Web Ordering System | 3 |
| | 1.3 | Menu Management | 4-5 |
| 02. | | SYSTEMANALYSIS | 5-9 |
| | 2.1 | Introduction to System Analysis | 10-12 |
| | | 2.1.1 Existing System | 10 |
| | | 2.1.2 Proposed System | 11-12 |
| | 2.2 | Software Requirement Specification(SRS) | 13 |
| | 2.3 | Hardware Requirements | 13 |
| | 2.4 | Software Requirements | |
| | 2.5 | Introduction to Web server | 14 |
| | 2.6 | Introduction to Apache | 15 |
| | 2.7 | Introduction to MySQL | 15-16 |
| | 2.8 | Introduction to Scripting Language | 17 |
| | 2.9 | Introduction of MicroSoft Visual Studio | 17-20 |
| | 2.10 | Introduction of ASP.NET | 21-22 |
| 03. | | SYSTEMDESIGN | 22 |
| | 3.1 | Data Flow Diagram | 23-31 |
| | 3.2 | Data Base Design | 32 |
| 04. | | TESTING AND IMPLEMENTATION | 33 |
| | 4.1 | Introduction to Testing | 33 |

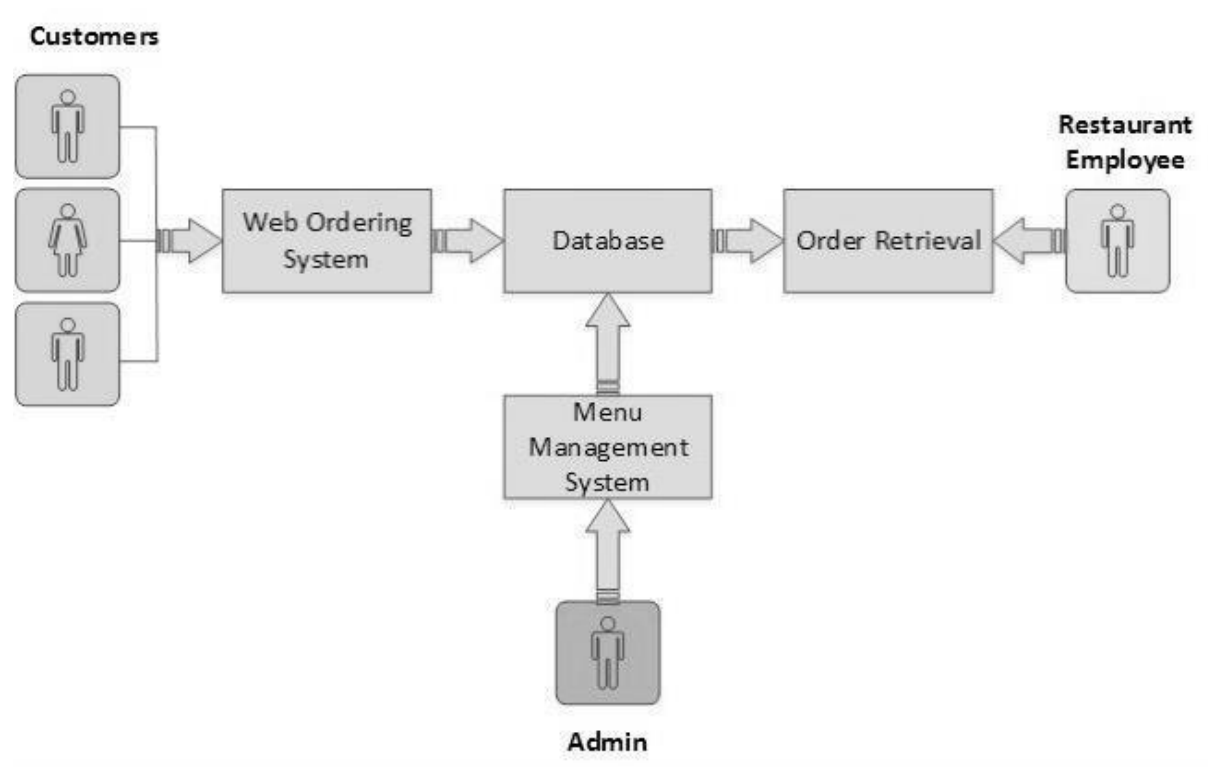
| | | | |
|-----|-----|-------------------------------------|-------|
| | 4.2 | Types of Testing | 34 |
| 05. | | SCREENSHOTS | 35-46 |
| 06. | | CONCLUSION AND FUTUREENHANCEMENT | 47-49 |
| 07. | | BIBLIOGRAPHY | 50 |

INTRODUCTION

Nowadays, digital business platforms are very popular and save us much effort and time in our daily life. E-commerce companies such as Amazon and E bay could deliver goods to customers very efficiently. On the one hand, customers could select goods and place orders online without visiting the shop, which is usually time-consuming. Besides, they do not need to carry the goods to home. Instead, the shop would deliver the goods and save customers efforts. On the other hand, using digital business platforms could make it more convenient for shop owners to manage orders, collect and analyze data and provide better service. In the catering industry, the demand of combining the convenience of digital business with their traditional delivery service is increasingly growing. Unlike common e-commerce companies, the restaurants usually could deliver food in less than half an hour and actually saves customers' time when compared to visiting the restaurants.

In order to stand out in the digital business trend of catering industry and provide more satisfying service, we designed this Spoon Foods project. Customers usually expect fast delivery and food in good condition to eat. So in order to adapt to customers' expectation and earn more profits for restaurant owners, we improved the traditional digital business platform. In addition to the general functionalities of e-commerce platform, we developed a hardware system which is intended to be put in the delivery box. After the restaurant receives customers orders and the dishes are ready to deliver, the deliveryman put the portable system in the delivery box. The system could record the temperature in the box and the time of delivery. After the dishes arrives, it will calculate a suggested tip for customers based on temperature, time and distance the deliveryman covered. If the food's temperature is suitable, the tips could be higher and otherwise the system gives a discount. In this way, we could realize a win-win relationship between customer and restaurants. Customers can expect fast delivery and hot food. Delivery staffs will be provided information for more efficient operations such as turn by turn navigation.

The Spoon Foods provides convenience for the customers. It overcomes the disadvantages of the traditional queuing system. This system increases the takeaway of foods than visitors. Therefore, this system enhances the speed and standardization of taking the order from the customer.



OBJECTIVE

This Project is aimed to provide:

- ✓ An order system on multi-platforms for customers to select dishes and place orders
- ✓ A convenient management dashboard for restaurant manager to easily manage the whole system
- ✓ A smart delivering system for helping delivery staff improves the quality of delivery service.

Web Ordering System:

Users of the web ordering system, namely restaurant customers, must be provided the following functionality:

- Create an account.
- Manage their account.
- Login to the system.
- Navigate the restaurant's menu.
- Select an item from the menu.
- Customize options for a selected item.
- Add an item to their current order.
- Review their current order.
- Remove an item/remove all items from their current order.
- Provide delivery and payment details.
- Place an order.
- Receive confirmation in the form of an order number.

As the goal of the system is to make the process of placing an order as simple as possible for the customer, the functionality provided through the web ordering system is restricted to that which is most pertinent to accomplish the desired task. All of the functions outlined above, with the exceptions of account creation and management, will be used every time a customer places an order. By not including extraneous functions, I am moving towards my goal of simplifying the ordering process.

Menu Management system

The menu management system will be available only to restaurant employees and will, as the name suggests, allow them to manage the menu that is displayed to users of the web ordering system. The functions afforded by the menu management system provide user with the ability to, using a graphical interface:

- Add a new/update/delete vendor to/from the menu.
- Add a new/update/delete food category to/from the menu.
- Add a new/update/delete food item to/from the menu.
- Add a new/update/delete option for a given food item.
- Update price for a given food item.
- Update default options for a given food item.
- Update additional information (description, photo, etc.) for a given food item.

It is anticipated that the functionality provided by this component will be one of the first things noted by the restaurant user, as they will have to go through it to configure their menu, etc. before beginning to actually take orders. Once everything is initially configured, however, this component will likely be the least used, as menu updates generally do not occur with great frequency.

Of the three components, the order retrieval system is functionally the simplest. Like the menu management system, it is designed to be used only by restaurant employees, and provides the following functions:

- Retrieve new orders from the database.
- Display the orders in an easily readable, graphical way.
- Mark an order as having been processed and remove it from the list of active orders.

SYSTEM ANALYSIS

System analysis is the process of gathering and interpreting facts, diagnosing problems and using the information to recommend improvements on the system. System analysis is a problem solving activity that requires intensive communication between the system users and system developers.

System analysis or study is an important phase of any system development process. The system is viewed as a whole, the inputs are identified and the system is subjected to close study to identify the problem areas. The solutions are given as a proposal. The proposal is reviewed on user request and suitable changes are made. This loop ends as soon as the user is satisfied with the proposal.

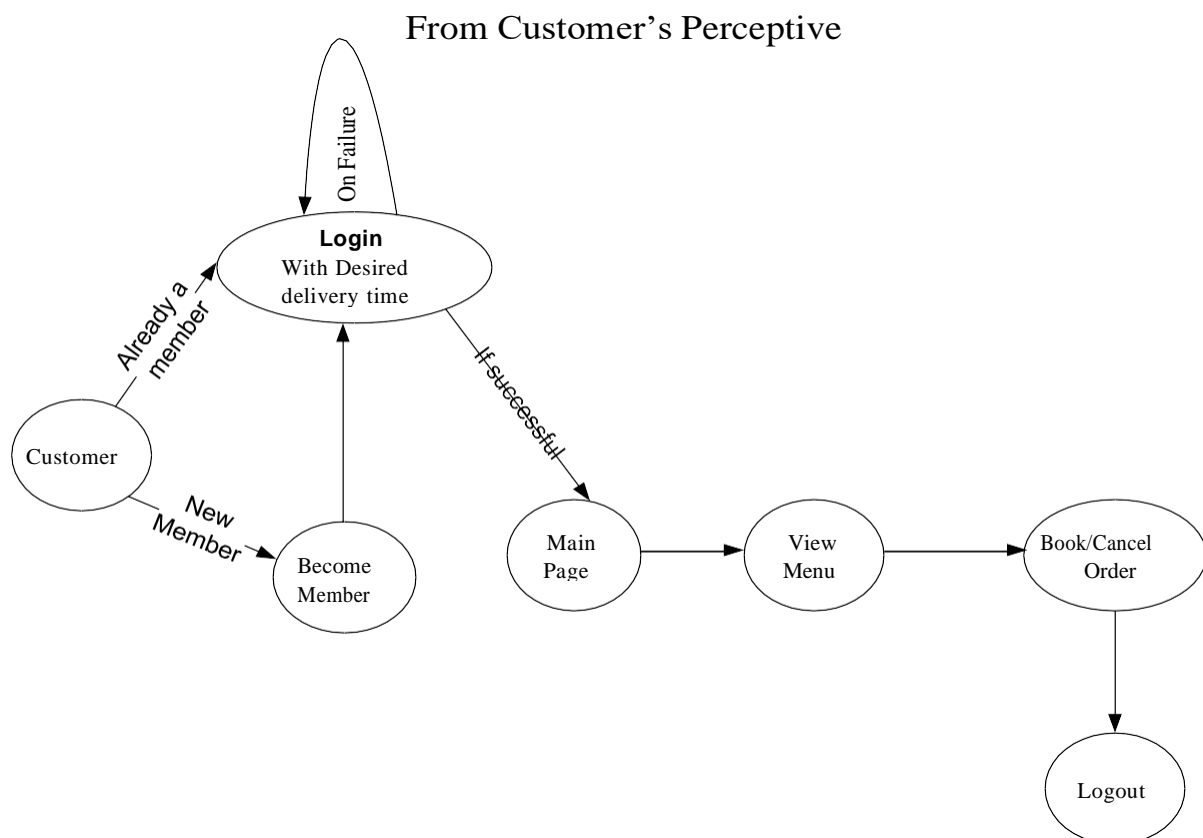
Problem Analysis

As discussed earlier our main problem area focuses on the “Meal reservation/booking system”, there are lot of problems in that area which are associated with both the customer and there restaurant staff.

We would like to analyzes one of the problem share:

- Initial problem is that the customer has to get connected over the phone, it would be harder if the restaurants very popular and busy.
- As customer won't have the menu list with him, it would be harder for him to remember Then tire list (with price as well...!) and come to a decision, i.e. customer is provided with less time to make decision.
- The chances of committing mistakes at the restaurants ide in providing game nul is for a specific time would be more.

- d. There might be some communication problems or sometimes language might be a barrier.
- e. A sent ire booking has to be done manually at the restaurant end, the chances of occurrence of mistakes is high as well.
- f. Most of restaurants have single phone line and a single operator to handle incoming calls, so they can accept limited orders.
- g. If the restaurant is of busy type, than the operator is left with no time to decide over the priority of the order fulfillment.
- h. 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.
- i. All the calls will no try intended for booking, as some calls might before cancel in the order or to fetch the status as well, this eat sup the productive time at the restaurant side.

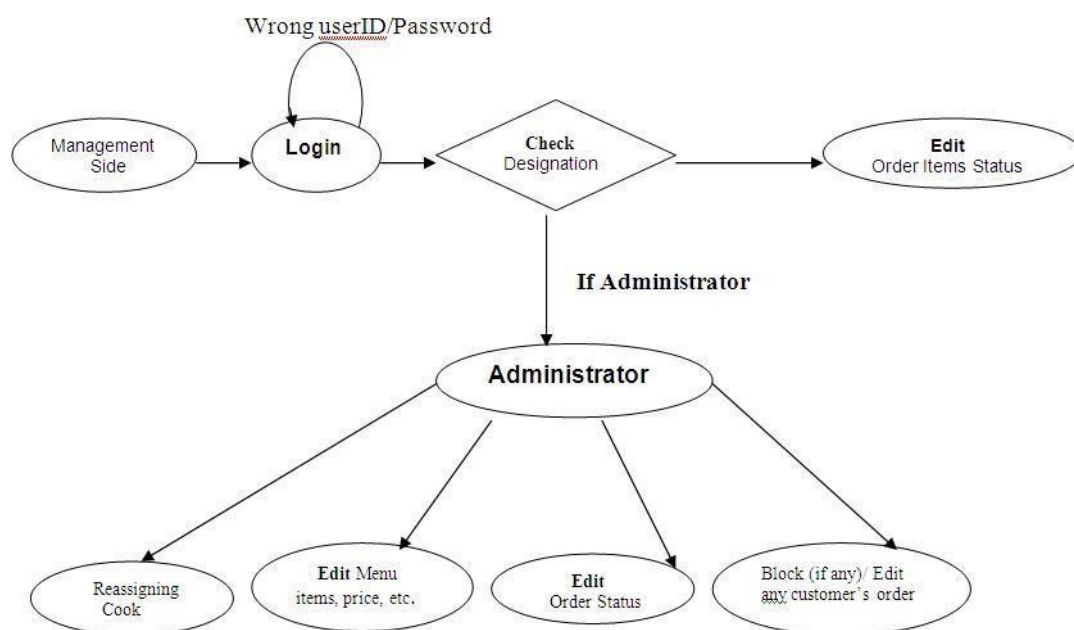


To register a meal online, the customer has to become a member first then he can access the later part of the site. The option of becoming member was only an attempt to avoid (to some extent) placing the fake bookings.

During login the user has to enter his emailed/User ID, password and desired time of order delivery. After successful login the customer can access the menu page with the items listed according to the desired time. Later within the available items he 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.

If the customer later wants to cancel the order, he is permitted to do this only within a specific time period. 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.

From Management's Perspective

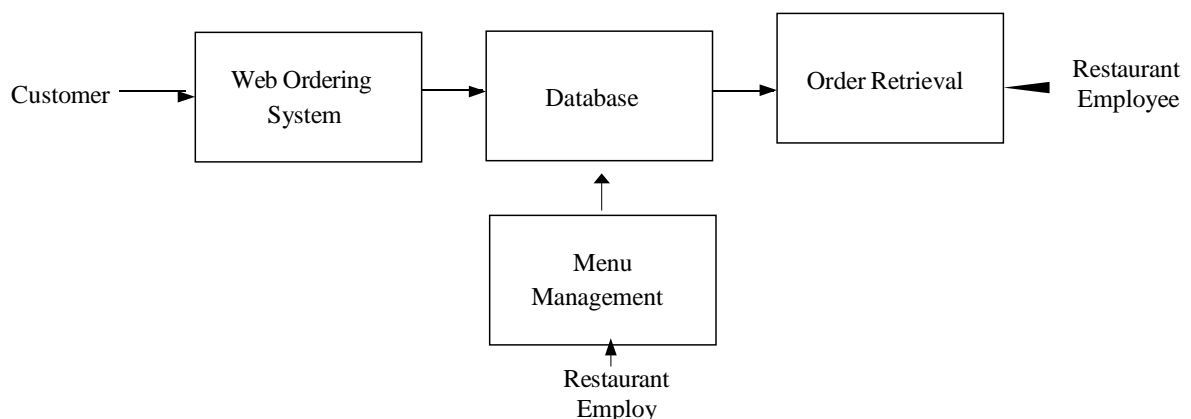


At Management side, initially the staff member has to login, and according to his design at the privileges are set. If the staff member is a cook, then he is allowed to edit only the order items status, indicating which menu item she has prepared.

If suppose the member is an administrator then, 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. He can also change the status of the order (in some special cases), and can also block (if any customer exists)/Edit any customer's order according to his priority.

System Model

The structure of the system can be divided into three main logical components. The first component must provide some form of menu management, allowing the restaurant to control what can be ordered by customers. The second component is the web ordering system and provides the functionality for customers to place their order and supply all necessary details. The third and final logical component is the order retrieval system. Used by the restaurant to keep track of all orders which have been placed, this component takes care of retrieving and displaying order information, as well as updating orders which have already been processed.



Summary of findings and recommendations: A list of the major findings and recommendations of the study. It is ideal for the user who requires quick access to the results of the analysis of the system under study. Conclusions are stated, followed by a list of the recommendations and a justification for them.

- ✓ Details of findings: An outline of the methods and procedures undertaken by the existing system, followed by coverage of the objectives and procedures of the candidate system. Included are also discussions of output reports, file structures, and costs and benefits of the candidate system.
- ✓ Recommendations and conclusions: Specific recommendations regarding the candidate system, including personnel assignments, costs, project schedules, and target dates.

EXISTING SYSTEM AND PROPOSED SYSTEM

After analyzing the necessities of the task to be performed, the next step is to analyze the problem and understand its context. The first activity in the phase is studying the existing system and other is to understand the necessities and domain of the new system. Both the behaviors are equally significant, but the first movement serves as a basis of giving the purposeful specifications and then winning design of the proposed system. Understanding the properties and necessities of a new system is more difficult and requires creative thinking and understanding of existing running system is also difficult, improper understanding of present system can lead diversion from solution.

Existing System

Drawbacks of Existing System

- ❖ As the current system is totally manual
- ❖ Existing system is manually, so it increases the chance so errors.
- ❖ Lot of the time consumed for a report generation
- ❖ Immediate response to the query's is difficult
- ❖ More station are uses of the year expensive
- ❖ Manual systems are takes more time
- ❖ More manpower.
- ❖ Consumes large volume of pare work.
- ❖ Damage of machines due to lack of attention.

Proposed system

The aim of proposed system is to develop a system of improved facilities. The proposed system can overcome all the limitations of the existing system. The system provides proper security and reduces the manual work. The existing system has several disadvantages and many more difficulties to work well.

The proposed system tries to eliminate or reduce these difficulties up to some extent. The proposed system will help the user to reduce the work load and mental conflict. The proposed system helps the user to work user friendly and he can easily do his jobs without time lagging. Expected Advantages of Proposed System

The system is very simple in design and to implement. The system requires very low system resources and the system will work in almost all configurations. It has got following features

- ❖ System can generate immediately getting the data and report.
- ❖ Avoid stationary expense
- ❖ New system provide online payment facility
- ❖ Any record is easy to store and manage
- ❖ Easy to solve customer query
- ❖ Provide better security in new system
- ❖ Give the feedback answer
- ❖ Ensure data accuracy's.
- ❖ Proper control of the higher officials.
- ❖ Reduce the damages of the machines.
- ❖ Minimize manual data entry.
- ❖ Minimum time needed for the various processing.
- ❖ Greater efficiency.
- ❖ Better service.
- ❖ User friendliness and interactive.
- ❖ Minimum time required.

Important Features

- ✓ User Friendly
- ✓ Availability
- ✓ Efficiency
- ✓ Reliable
- ✓ Durable
- ✓ Accuracy

SPECIFICATION REQUIREMENT

Requirement analysis for web applications encompasses three major asks: formulation, requirements gathering and analysis modeling. During formulation, the basic motivation and goals for the web application are identified, and the categories of users are defined. In the requirements gathering phase, the content and functional requirements are listed and interaction scenarios written from end-user's point-of-view are developed. This intent is to establish a basic understanding of why the web application is built, who will use it, and what problems it will solve for its users.

SOFTWARE REQUIREMENT SPECIFICATION

| | | |
|--------------------|---|---------------------|
| Operating System | : | Windows 11 |
| Presentation layer | : | PHP, HTML, JS, CSS, |
| Database | : | My SQL |

HARDWARE REQUIREMENT SPECIFICATION

| | | |
|-----------|---|--|
| Processor | : | Standard process or with a speed of 2.0GHz |
| RAM | : | 8GB |
| Hard Disk | : | 1TB or Additional |
| Monitor | : | Standard color monitor |
| Keyboard | : | Standard keyboard |
| Mouse | : | Standard mouse |

TECHNOLOGIES USED

What is a Web Server?

Wondering what the heck is a web server? Well a web server is like a restaurant host. When you arrive in a restaurant, the host greets you, checks your booking information and takes you to your table. Similar to the restaurant host, the web server checks for the web page you have requested and fetches it for your viewing pleasure. However, A web server is not just your host but also your server. Once it has found the web page you requested, it also serves you the web page. A web server like Apache, is also the Spoon Food of the restaurant. It handles your communications with the website (the kitchen), handles your requests, makes sure that other staff(modules) are ready to serve you. It is also the bus boy, as it cleans the tables (memory, cache, modules) and clears them for new customers.

So basically a web server is the software that receives your request to access a web page. It runs a few security checks on your HTTP request and takes you to the web page. Depending on the page you have requested, the page may ask the server to run a few extra modules while generating the document to serve you. It then serves you the document you requested. Pretty awesome isn't it.

What is Apache?

The Apache web server, more popular as simply Apache, represents an open-source webserver platform lying in the basis of most of the websites we see today on the World Wide Web. Looking back at the time when it was introduced in mid90's and gradually adopted as a preferred server platform on the web, we could state that Apache acted as the main driving force behind today's web expansion. As a web server 'pioneer', Apache has turned into a standard for the development of other successful web server platforms.

The Apache web server is a work of the Apache Software Foundation open source community. Namely the fact that it is backed up by the efforts of many supporters worldwide keeps it so well maintained and regularly updated with new useful features and functionalities up to the latest quality and security requirements in HTTP service delivery.

Where does that strange name of the popular server come from? There are two intriguing and radically different stories behind its origin. The more popular one says that naming the server this way is a kind of a tribute to the Native American Indian tribe Apache, known for its fighting strength and dauntless spirit. According to the other story, the name 'Apache server' represents a sound analogue to 'a patchy server', with 'patchy' referring to the bundle of patches that are attached to the code base of NCSA HTTP d 1.3.

MySQL

MySQL is a database management system that is used by Word Press to store and retrieve all your blog information. Think of it this way. If your database is a filing cab in that Word Press uses to organize and store all the important data from your website (posts, pages, images, etc.) then MySQL is the company that created his special type of filing cabinet.

MySQL is an open source relational database management system. It runs as a server and allows multiple users to manage and create numerous databases. It is a central component in the LAMP stack of open source web application software that is used to create websites.

LAMP stands for Linux, Apache, MySQL, and PHP. Most Word Press installations use the LAMP stack because it is open source and works seamlessly with Word Press.

Word Press requires MySQL to store and retrieve all of its data including post content, user profiles, and custom post types. Most web hosting providers already have MySQL installed on their web servers as it is widely used in many open source web applications such as Word Press.

Word Press uses the PHP programming language to store and retrieve data from the MySQL database. To retrieve data from the database, Word Press runs SQL queries to dynamically generate content. SQL stands for Structured Query Language and is the programming language typically used to query databases.

For users that are not comfortable writing their own PHP and SQL scripts, most webhosting providers offer easy to use web applications to manage databases. One such web application is php My Admin which allows users to manage their database using a web based graphical interface. You can manipulate your tables visually while php My Admin runs the SQL queries for you.

Tables Detail

❖ Login Table

| Name | Type | Size | Null |
|-----------|---------|------|----------|
| No | Int | 10 | Not Null |
| Name | Varchar | 15 | Not Null |
| Email | Varchar | 15 | Not Null |
| Password | Varchar | 8 | Not Null |
| Mobile No | Int | 10 | Not Null |

❖ Sign-Up Table

| Name | Type | Size | Null |
|------------------|---------|-------|----------|
| Name | Varchar | 15 | Not Null |
| Email | Varchar | 15 | Not Null |
| Gender | Enum | (M,F) | Not Null |
| Phone Number | Int | 10 | Not Null |
| Password | Varchar | 8 | Not Null |
| Confirm Password | Varchar | 8 | Not Null |
| House Number | Int | 4 | Not Null |
| Address | Varchar | 50 | Not Null |
| Landmark | Varchar | 15 | Not Null |
| Pincode | Int | 6 | Not Null |
| State | Varchar | 10 | Not Null |
| Sign up | - | - | Not Null |

❖ User Table

| Name | Type | Size | Null |
|---------------|---------|------|----------|
| User ID | Varchar | 100 | Not Null |
| User Email | Varchar | 15 | Not Null |
| User Password | Varchar | 8 | Not Null |
| User Name | Varchar | 15 | Not Null |
| Phone No. | Int | 10 | Not Null |
| User Address | Varchar | 50 | Not Null |

❖ Products

| Name | Type | Size | Null |
|---------------|---------|------|----------|
| Product ID | Int | 100 | Not Null |
| Category ID | Int | 100 | Not Null |
| Product Name | Varchar | 15 | Not Null |
| Price | Int | 10 | Not Null |
| Product Image | - | - | - |

❖ Product Category Table

| Name | Type | Size | Null |
|----------------|---------|------|----------|
| Category Id | Int | 100 | Not Null |
| Category Name | Varchar | 15 | Not Null |
| Category Image | Varchar | - | Not Null |

❖ My Cart

| Name | Type | Size | Null |
|----------|---------|------|----------|
| Name | Varchar | 10 | Not Null |
| Price | Int | 10 | Not Null |
| Quantity | Int | 10 | Not Null |
| Total | Int | 10 | Not Null |

❖ Order Detail Table

| Name | Type | Size | Null |
|--------------|---------|------|----------|
| Order ID | Int | 100 | Not Null |
| User ID | Int | 15 | Not Null |
| Product ID | Int | 15 | Not Null |
| Product | Varchar | 15 | Not Null |
| Product Name | Varchar | 10 | Not Null |
| Price | Int | 5 | Not Null |
| Quantity | Int | 10 | Not Null |
| Payment ID | Int | 10 | Not Null |
| Order Status | Varchar | 10 | Not Null |
| Order Date | Int | 10 | Not Null |

❖ Payment Detail Table

| Name | Type | Size | Null |
|--------------|---------|------|----------|
| Payment ID | Int | 10 | Not Null |
| Product ID | Int | 10 | Not Null |
| User ID | Int | 10 | Not Null |
| Payment Type | Varchar | 15 | Not Null |
| Total | Int | 15 | Not Null |
| Paid | Varchar | 10 | Not Null |
| Date | Int | 10 | Not Null |

❖ Help

| Name | Type | Size | Null |
|-----------|---------|------|----------|
| No | Int | 10 | Not Null |
| Name | Varchar | 15 | Not Null |
| Email | Varchar | 15 | Not Null |
| Password | Varchar | 8 | Not Null |
| Mobile No | Int | 10 | Not Null |

What is a Scripting Language?

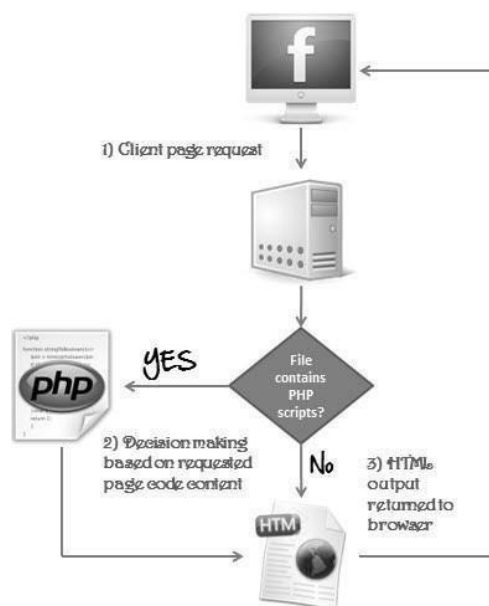
A script is a set of programming in structures that is interpreted at runtime.

A scripting language is a language that interprets scripts at runtime. Scripts are usually embedded into other software environments.

The purpose of the scripts is usually to enhance the performance or perform routine tasks for an application.

Server side scripts are interpreted on the server while client side scripts are interpreted by the client application.

PHP is a server side script that is interpreted on the server while JavaScript is an example of a client side script that is interpreted by the client browser. Both PHP and JavaScript can be embedded into HTML pages.



The PHP tags themselves are not case-sensitive, but it is strongly recommended that we use lowercase letters. The code below illustrates the above point.

```
<? Php...
```

```
?>
```

We will be referring to the PHP lines of code as statements. PHP statements end with a semicolon (;). If you only have one statement, you can omit the semi colon. If you have more than one statement, then you must end each line with a semi colon. For the sake of consistency, it is recommended that you always end your statement(s) with a semi colon. PHP scripts are executed on the server. The output is returned in form of HTML.

TOOLS TO BE USED

MICROSOFT VISUAL STUDIO

Microsoft Visual Studio is Microsoft's flagship software development product for computer programmers. It centers on an integrated development environment which has programmers create stand alone, and web services that run on any platforms supported by Microsoft's .Net Framework (for all versions after 6). Supported platforms include Microsoft windows, servers and workstations, Pocket PC, Smart Phones and World Wide Web browsers not the Java Virtual Machine that all other java tools target.

VISUAL STUDIO 2010

The most important language added in this version was the introduction of generics, Which are similar in many aspects to C++ templates. This potentially increases the number of bugs caught at compile- time instead of run- time by encouraging the use of strict type checking in areas where it was not possible before, C++ also got a similar upgrade with the addition of C++/CLI which is slated to replace the use of Managed C++.

Some new features of Visual Studio 2010 include the "Development Designer" which allows application designs to be validated before deployments, an improved environment for web publishing when combined with ASP.NET 3.5 and load testing to see application performance under various sorts of user loads.

Visual Studio 2010 also added extensive 64- bit support. While the development environment itself only available as a 32- bit application, visual C++ 2010 supports compiling for (x64AMD64 and EM64T) as well as IA- 64 (Itanium). The platforms SDK include 64- bit and 64-bit versions of the libraries.

.NET FRAMEWORK SDK

The .NET framework is an integral windows component that supports building and running the next generation of applications and XML web services. The key component of the .NET framework are the common language runtime and the .NET framework class library, which includes ADO.NET, ASP.NET and windows forms. The .NET framework provides a managed execution environment simplified development and deployment and integration with a wide variety of programming languages.

This framework is made up of the following parts:

- The common language runtime(CLR)
- The base class libraries.
- Object oriented interring web forms

OVERVIEW OF THE .NET FRAME WORK

The .NET framework is a new computing platform that simplifies application development in the highly distributed environment of the internet. The .NET framework is designed to fulfil following objectives:

- To provide a consistent object oriented programming environment whether object code is stored and executed locally but internet-distributed or executed remotely.
- To provide a code execution environment that minimizes software deployment and versioning conflicts.
- To provide a code execution environment that guarantees safe execution of code, including code created by an unknown or semi-trusted third party.
- To provide a code execution environment that eliminates the performance problem of scripted or interpreted environments.
- To make the developer experience consistent across widely types of application, such as windows based applications and web based applications.

To build all communication on industry standards to ensure that codebased

On the .NET framework can integrate with any other code.

The .NET framework has two main components: the common language runtime and the .Net framework class library. The common language runtime is the foundation of the .NET framework. You can think of the runtime as an agent that manages code at execution time, and remoting while also enforcing strict type safety and other forms of code accuracy that ensure security and robustness in fact the concept of code management is a fundamental principle of the runtime.

Code that targets the runtime is known as managed code, while code that does not target the runtime is known as unmanaged code. The class library, the other main component of the .NET frameworks is a comprehensive, object-oriented collection reusable types that you can use to develop applications ranging from traditional command line or graphical user interface (FGUI) applications to application base d on the latest innovations provided by ASP.NET, such as web forms and XML web services.

The .NET framework can be hosted by unmanaged component that load the common language runtime into their processes and initiate the execution of managed code. ASP.NET works directly with the runtime to enable ASP.NET application and XML web services, both of which are discussed later in this topic, Internet explorer is an example of unmanaged application that hosts the runtime (in the form of a MIME type extension). Using internet explorer to the host runtime enables you to embed managed components or windows forms controls in HTML documents. Hosting the runtime in this way makes mobile code similar to Microsoft Active Or controls) possible, but with significant improvement that only managed code can offer, such as semi-trusted execution and secure isolated file storage.

The following illustration shows the relationship of the common language runtime and the class library to your application and to the overall system. The illustration also shows how managed code operated with in a larger architecture.

We can use the .NET framework to develop the following types of application and services:

- Console applications
- Window GUI application (Windows Forms) ASP.NET applications
- XML Web services
- Windows services

ASP.NET

ASP.NET is a set of Microsoft.NET framework technologies used for building web applications and XML Web services. ASP.NET page execute on the server and generate mark up such as HTML, WML or XML that is sent to a desktop or mobile browser. ASP.NET pages use a compiled, event-driven programming model that improves performance and enables the separation of application logic and user interface. Both ASP.NET pages and ASP.NET web services files contain server-side (as opposed to client side logic) written in Visual basic .NET, C#.NET or any .NET compatible language, Web applications and XML Web Services take advantage of the features of the common language runtime, such as type safety, inheritance, language, interoperability, versioning, and integrated security.

Content Management System

A content management system or CMS is software that facilitates creating, editing, organizing, and publishing content. Word Press is a Content Management System that allows you to create and publish your content on the web. Although it is mostly used for web publishing, it can be used to manage content on an intranet, or in a single computer.

Word Press allows users to have full control over the files, documents, as well as the design and display of the content. You don't have to know a single line of code to publish content using Word Press. The beauty of a good content management system is to allow any user to create and manage their content without any technical know-how.

In the earlier days, an average user or a small company had to rely on static HTML sites because they could not afford a content management system which would cost hundreds of thousands of dollars. That problem is now solved. Word Press is open source and free for anyone to use.

Word Press is being used in all sort of creative ways. We have seen Word Press being used to power small business websites, blogs, large university websites, portfolios, real estate Property listing site, internal communication system for companies, web directories, movie databases, application infrastructure base, arcade sites, and basically anything else you can think of.

A content management system may have the following functions:

- ✓ Making publishing easier and more consistent with existing structure/design
- ✓ Allowing the input of data that classifies content (e.g. keywords) so that it can be searched for and retrieved
- ✓ Tracking changes to pages and, if necessary, allowing previous versions to be accessed.
- ✓ Make it easy to edit content
- ✓ Allow for collaborative work on content
- ✓ Integrated document management systems
- ✓ Work flow management :Allowing for parallel content development
- ✓ Provide extensions and plug-ins for increased functionality Etc.

SYSTEM DESIGN

INTRODUCTION OF SYSTEM DESIGN

The design phase is the life cycle phase in which the detailed design of the selected system in the study phase is accomplished. In the design phase, the technical specifications are prepared for the performance of all allocated tasks. It also includes the construction of programs and program testing. In the design phase, the first step is to determine the output is to be produced and in what format. Second, input data and master files have to be designed to meet the requirements of proposed output. The system analyst has to define the methods of capturing and input programs and format of the output and its use by the users.

SYSTEM FLOW CHART

A graphic representation of a system showing the overall flow of control in the processing at the job level; specifies what activities must be done to convert from a physical to logical model is known as a system flowchart. Thus it summarizes what operations are under taken and where and when they take place. Normally in a system flowchart input from outside are shown to the left and outputs to the right. Symbols representing the operations under taken and the documents used are then placed in the appropriate places which gives a general flow of data from top to bottom and left to right. Arrows are used on the connecting lines to indicate the logical flow or sequence where the flow is not in the standard direction. No interaction is implied by crossing lines. Decisions which lead to different actions can also be shown

DATA FLOW DAGRAM

A data flow diagram is graphic representation of a system that shows data flows to, from and within the system, processing functions that change the date in some manner, and the storage of this data. They are network so related system function that indicated form where information is revived and to where it is sent.

An external entity is the originator or receiver of data or information. A data store symbol portrays a file or database in which data resides. A process is depicted by a circle sometimes it is called a bubble or transform. Process portrays the transformation of the content of status of data

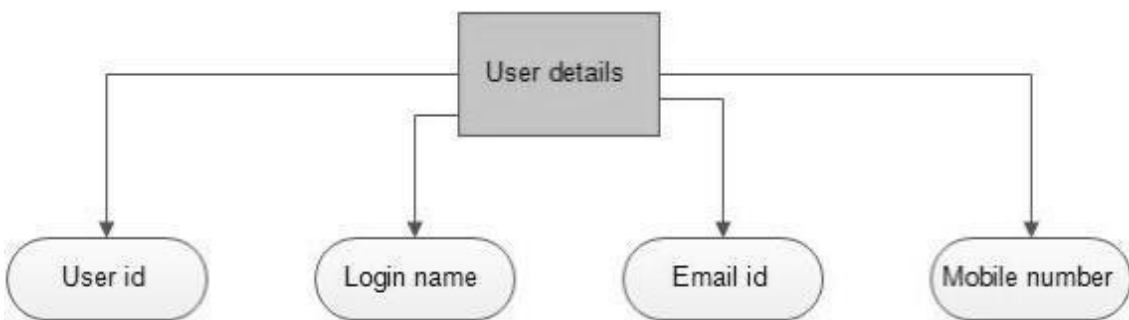
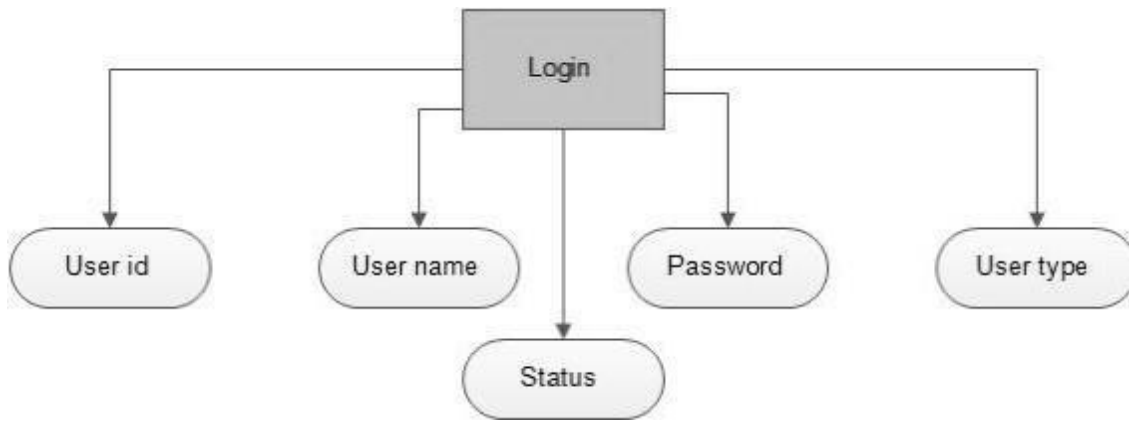
DATABASE DESIGN

This activity deals with the design of the physical database. The designer begins to concentrate on file design or how data should be organized around user requirements. How data are organized depends on the data and response requirements that determine hardware configurations.

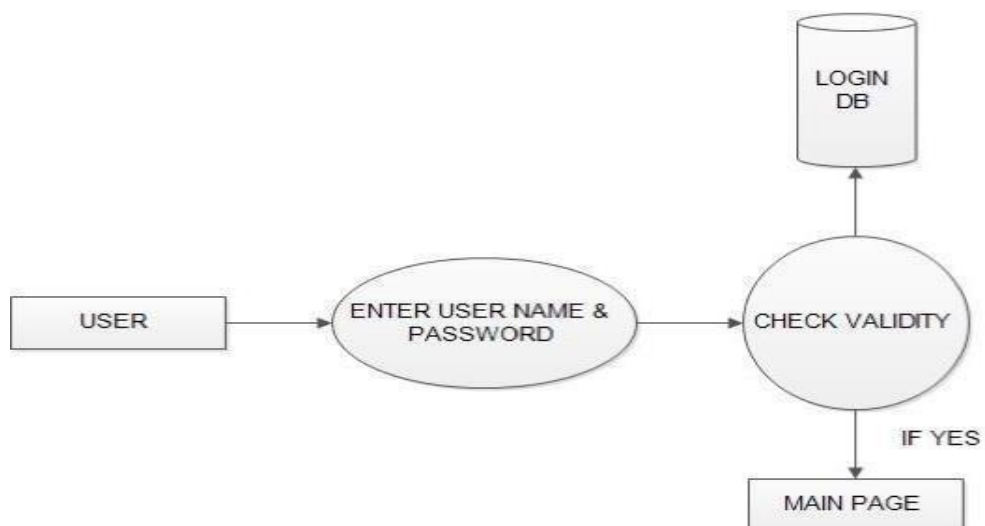
An integrated approach to file design is the database. The general theme is to handle information as an integrated whole, with a minimum of redundancy and improved performance, type and size of data structure used. The objectives of data base are accuracy and integrity, privacy and security of data etc.

DATA FLOW

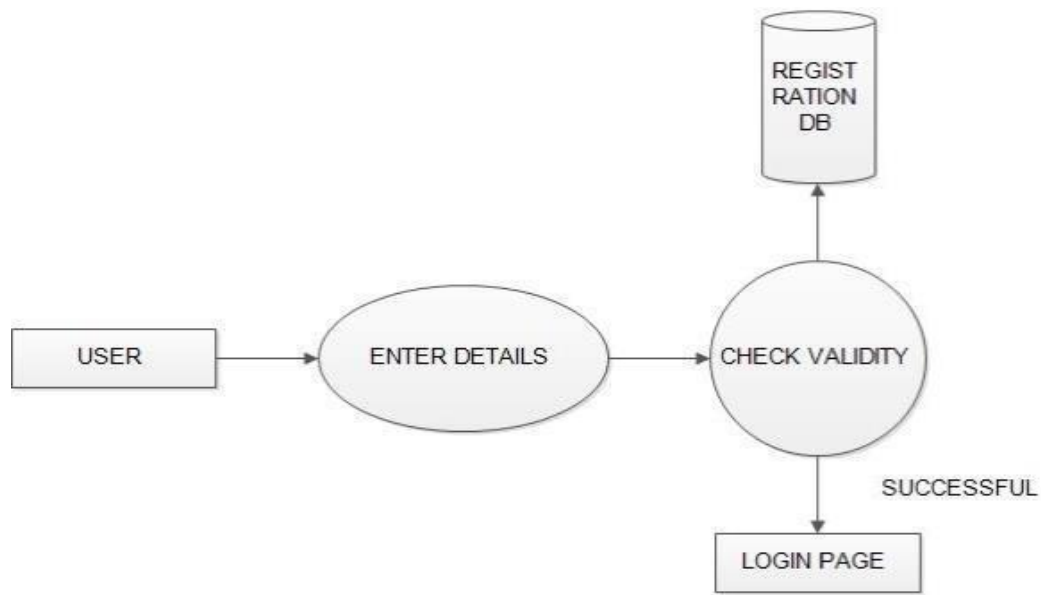
- ✓ A data flow has only one direction of flow between symbols. It may flow in both directions between a process and a data store to show a read before an update.
- ✓ A fork in a data flow means that exactly these same data goes from a common location to two or more different processes, data stores, or source/sinks.
- ✓ A join in a data flow means that exactly these are data come from many of two or more different processes, data stores, or source/sinks to a common location
- ✓ A data flow cannot go directly back to the process it leaves.
- ✓ A data flow to a data store means update.
- ✓ A data flow from a data store means retrieve or use.
- ✓ A data flow has a noun phrase label.



DFD

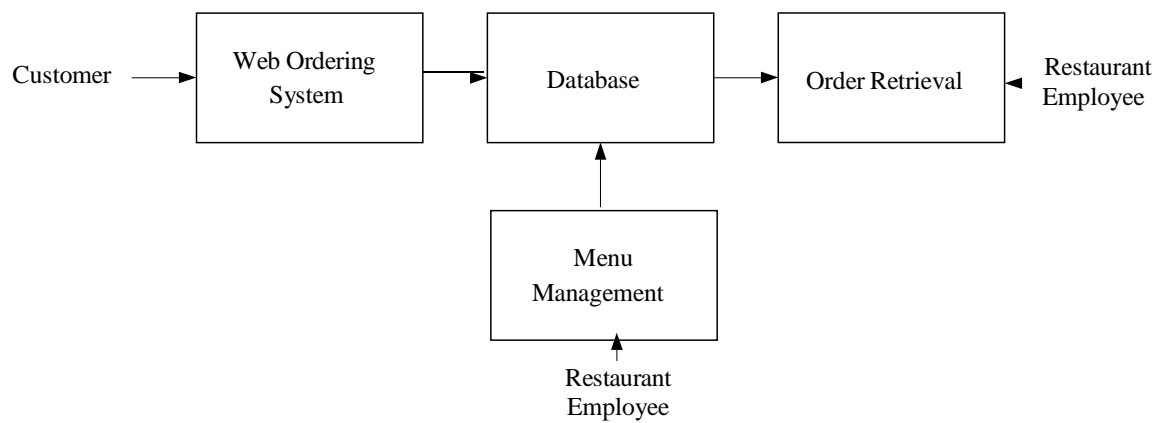


REGISTRATION DFD

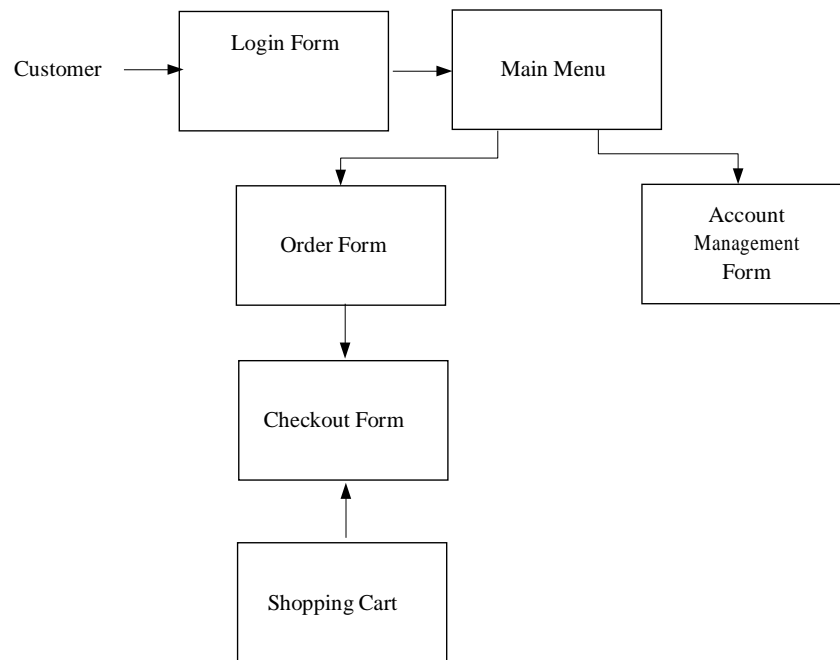


Activity Diagram

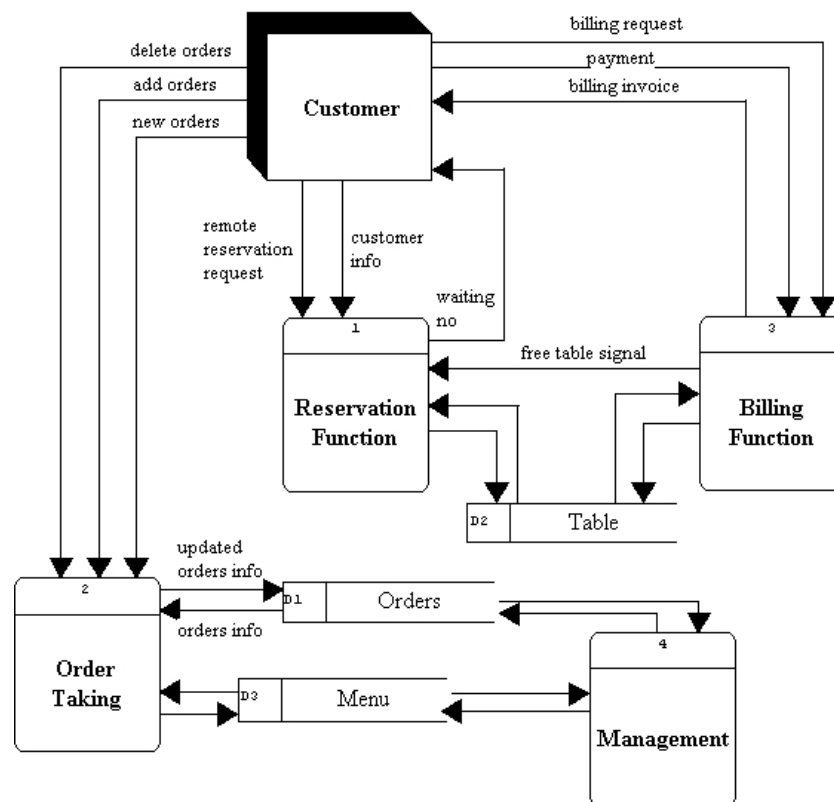
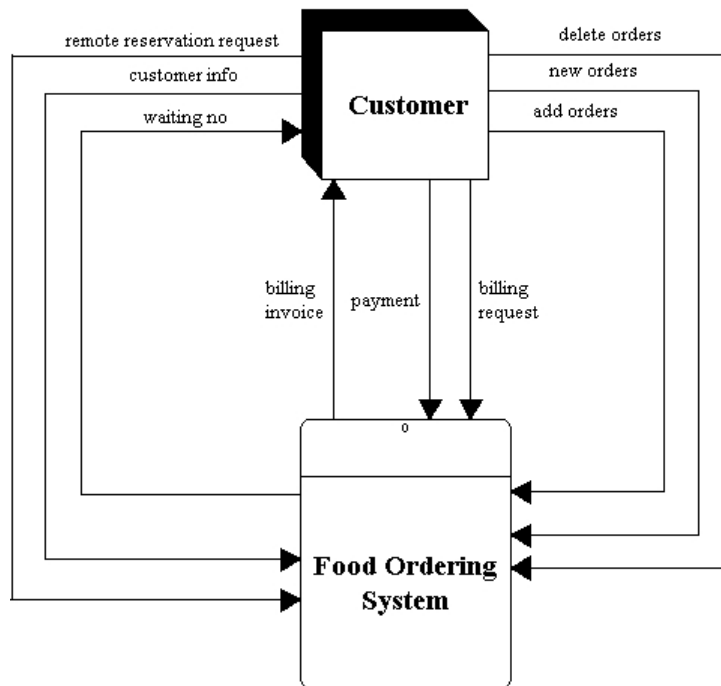
DFD

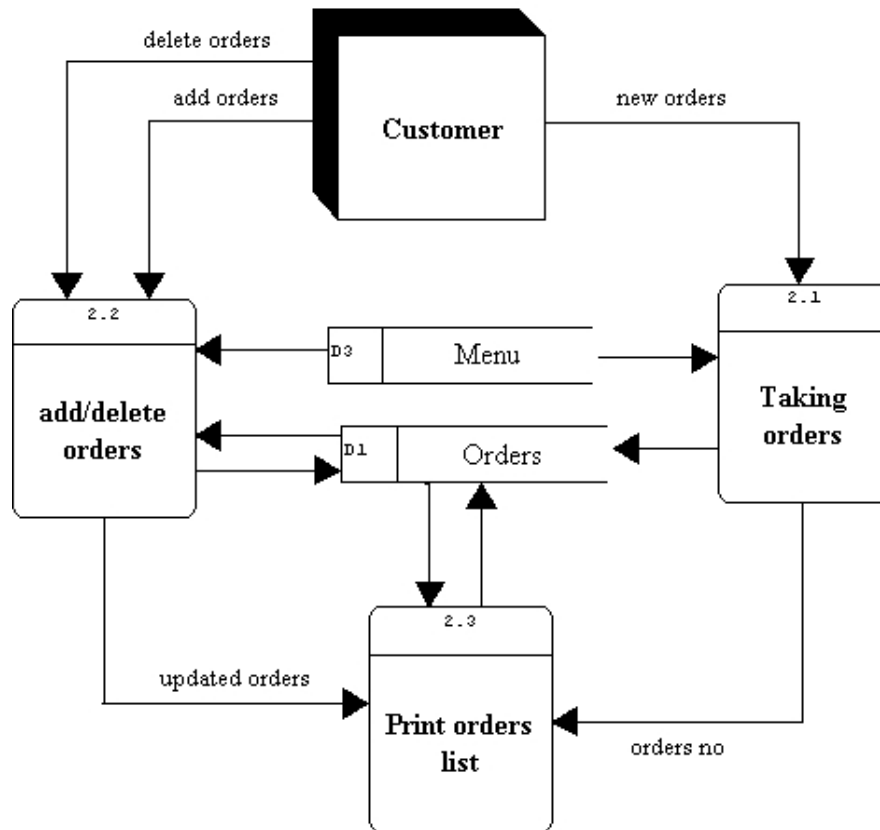


DFD



Content Diagram





E-R Diagrams

The Entity-Relationship (ER) model was originally proposed by Peter in 1976 as a way to unify the network and relational database views. Simply stated the ER model is a conceptual data model that views the real world as entities and relationships. A basic component of the model is the Entity-Relationship diagram which is used to visually represent data objects. Since Chen wrote his paper the model has been extended and today it is commonly used for database design for the database designer, the utility of the ER model is:

It maps well to the relational model. The constructs used in the ER model can easily be transformed into relational tables.

It is simple and easy to understand with a minimum of training. Therefore, the model can be used by the database designer to communicate the design to the end user.

In addition, the model can be used as a design plan by the database developer to implement a data model in specific database management software.

Connectivity and Cardinality

The basic types of connectivity for relations are: one-to-one, one-to-many, and many-to-many. A *one-to-one* (1:1) relationship is when at most one instance of a entity A is associated with one instance of entity B. For example, "employees in the company are each assigned their own office. For each employee there exists a unique office and for each office there exists a unique employee.

A *one-to-many* (1:N) relationships is when for one instance of entity A, there are zero, one, or many instances of entity B, but for one instance of entity B, there is only one instance of entity A. An example of a 1: N relationships is

A department has many employees

Each employee is assigned one department

A *many-to-many* (M:N) relationship, sometimes called non-specific, is when for one instance of entity A, there are zero, one, or many instances of entity B and for one instance of entity B there is zero, one, or many instances of entity A. The connectivity of a relationship describes the mapping of associated

ER Notation

There is no standard for representing data objects in ER diagrams. Each modeling methodology uses its own notation. The original notation used by Chen is widely used in academics texts and journals but rarely seen in either CASE tools or publications by non-academics. Today, there are a number of notations used, among the more common are Bachman, crow's foot, and IDEFIX.

All notational styles represent entities as rectangular boxes and relationships as lines connecting boxes. Each style uses a special set of symbols to represent the cardinality of a connection. The notation used in this document is from Martin. The symbols used for the basic ER constructs are:

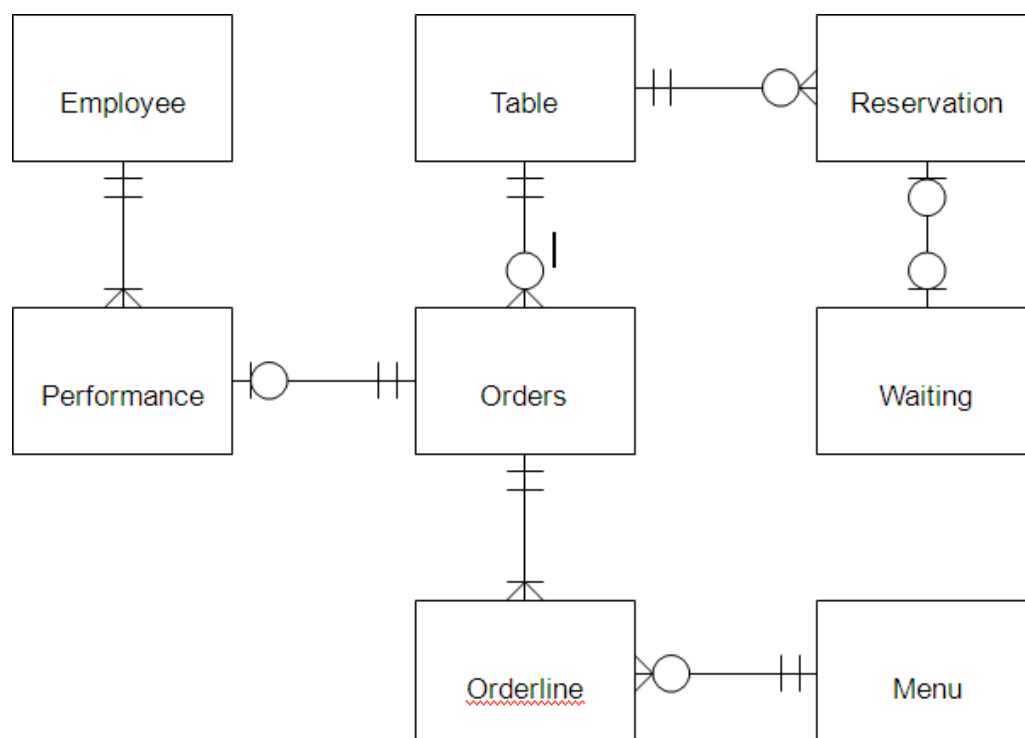
Entities are represented by labeled rectangles. The label is the name of the entity. Entity names should be singular nouns.

Relationships are represented by as order line connecting two entities. The name of the relationship is written above the line. Relationship names should be verbs

Attributes, when included, are listed inside the entity rectangle. Attributes which are identifiers are underlined. Attribute names should be singular nouns.

Cardinality of many is represented by a line ending in a crow's foot. If the crow's foot is omitted, the cardinality is one.

Existence is represented by placing a circle or a perpendicular bar on the line. Mandatory existence is shown by the bar (looks like a 1) next to the entity for an instance is required. Optional existences shown by placing a circle next to the entity that is optional



DATABASE DESIGN

The general theme behind a database is to handle information as an integrated whole. A database is a collection of interrelated data stored with minimum redundancy to serve many users quickly and effectively. After designing input and output, the analyst must concentrate on database design or how data should be organized around user requirements. The general objective is to make information access, easy quick, in expensive and flexible for other users.

During database design the following objectives are concerned

- ✓ Controlled Redundancy
- ✓ Data independence
- ✓ Accurate and integrating
- ✓ More information at low cost
- ✓ Recovery from failure
- ✓ Privacy and security
- ✓ Performance
- ✓ Ease of learning and use

TESTING

What is Software Testing?

Software testing is an activity to check whether the actual results match the expected results and to ensure that the software system is Defect free. It involves execution of a software component or system component to evaluate one or more properties of interest.

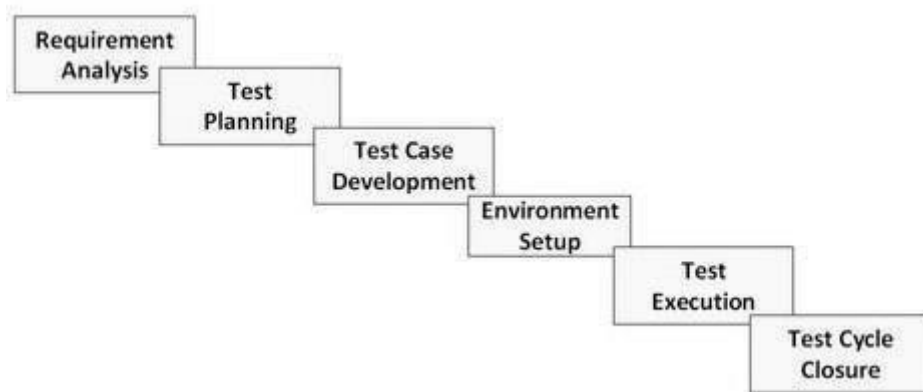
Software testing also helps to identify errors, gaps or missing requirements in contrary to the actual requirements. It can be either done manually or using automated tools. Some prefer saying Software testing as a white box and Black Box Testing.

What is Software Testing Life Cycle (STLC)?

Software Testing Life Cycle (STLC) is defined as a sequence of activities conducted to perform Software Testing.

It consists of series of activities carried out methodologically to help certify your software product.

Diagram-Different stages in Software Test Life Cycle



Software testing is the process of executing a program with intension of finding errors in the code. It is a process of evolution of system or its parts by manual or automatic means to verify that it is satisfying specified or requirements or not. Generally, no system is perfect due to communication problems between user and developer, time constraints, or conceptual mistakes by developer. To purpose of system testing is to check and find out these errors or faults as early as possible losses due to it can be saved.

Testing is the fundamental process of software success. Testing is not a distinct phase in system development life cycle but should be applicable throughout all phases i.e. design development and maintenance phase. Testing is used to show incorrectness and considered to success when an error is detected.

OBJECTIVES OF SOFTWARE TESTING

The software testing is usually performed for the following objectives

Software Quality Improvement

The computer and the software are mainly used for complex and critical applications and a bug or fault in software causes severe losses. So a great consideration is required for checking for quality of software.

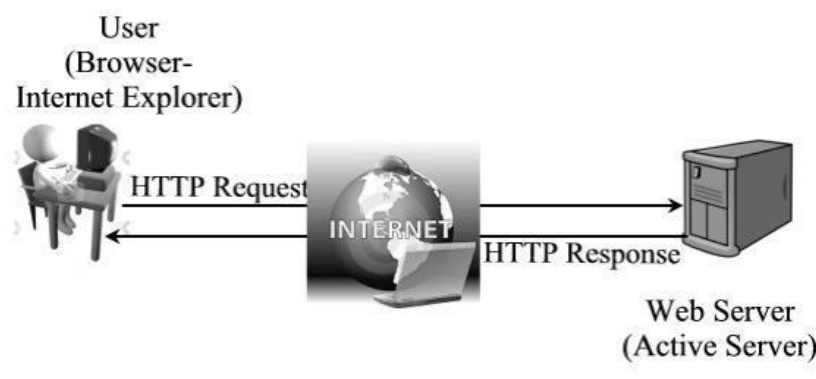
Verification and Validation

Verification means to test that we are building the product in right way .i.e. are we using the correct procedure for the development of software so that it can meet the user requirements.

Validation means to check whether we are building the right product or not.

Software Reliability Estimation

The objective is to discover the residual designing errors before delivery to the customer. The failure data during process are taken do in order to estimate the software reliability.



SCREENSHOTS

Login Page:-

localhost:5392/Spoon Foods/user/wfrmlogin.aspx

Spoon Foods

Login Here

Username

Password

Login

Don't have an account
Forgot password?

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Registration Form:-

localhost:5392/Spoon Foods/user/wfrmsignup.aspx

Spoon Foods

SignUp Here

Name
Enter Name

E-mail
Enter Email address

Gender
☒ Male ☐ Female

Phone Number
Enter Phone Number

Password
Enter password

Confirm Password
Confirm password

House Number
Enter House Number

Address
Enter Address

Landmark
Enter Landmark

Pincode
Enter Pincode

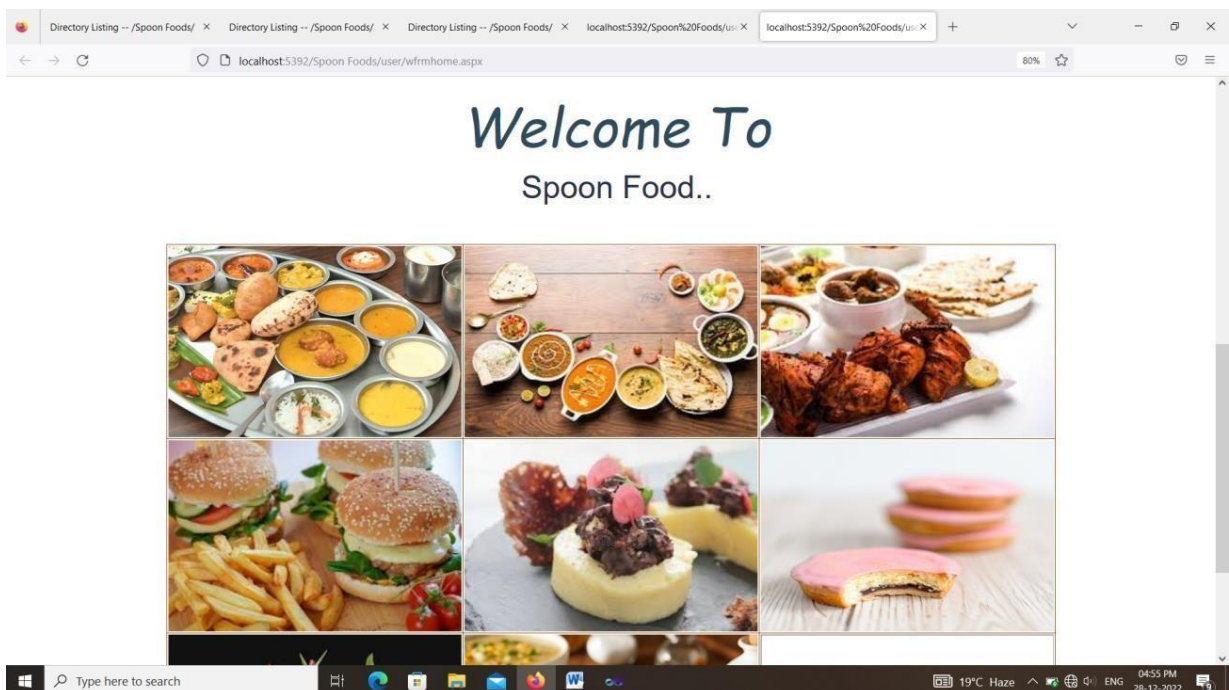
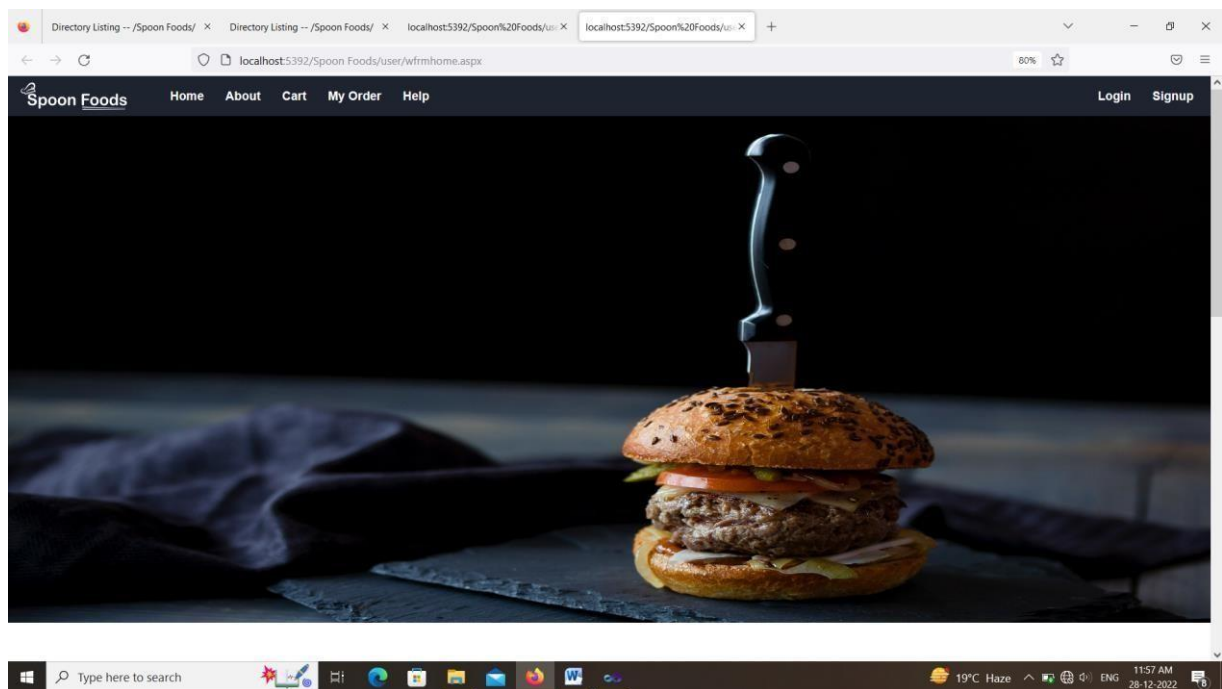
State
Enter State

Sign-up

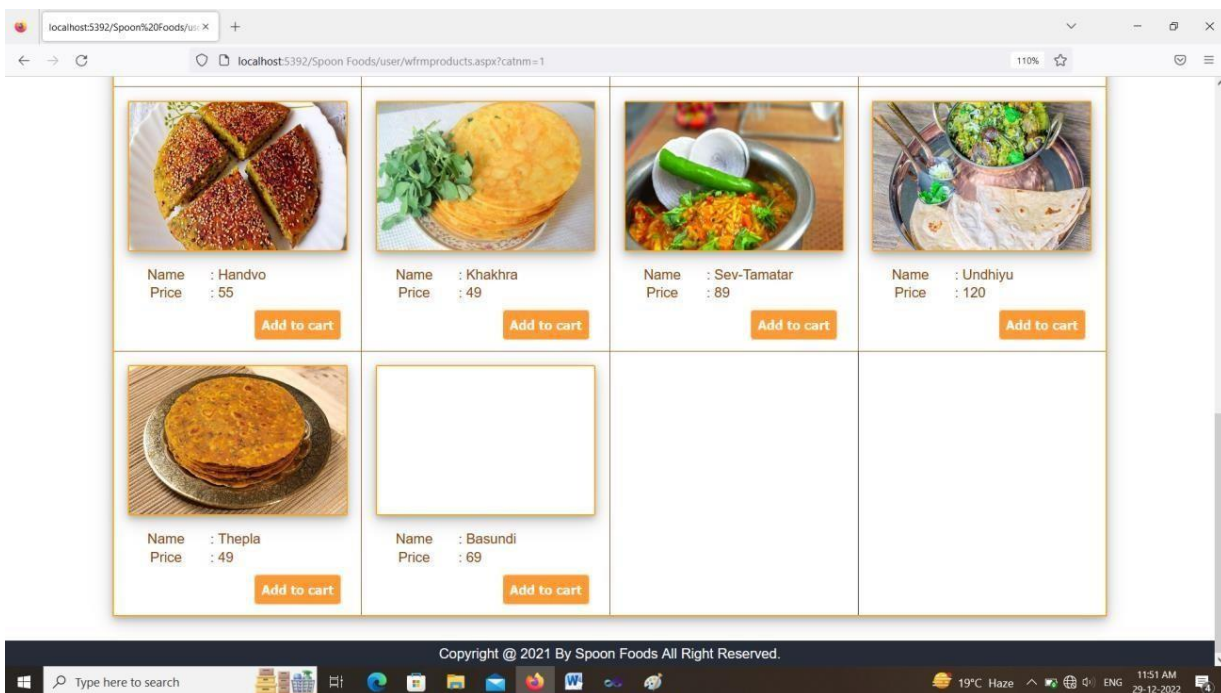
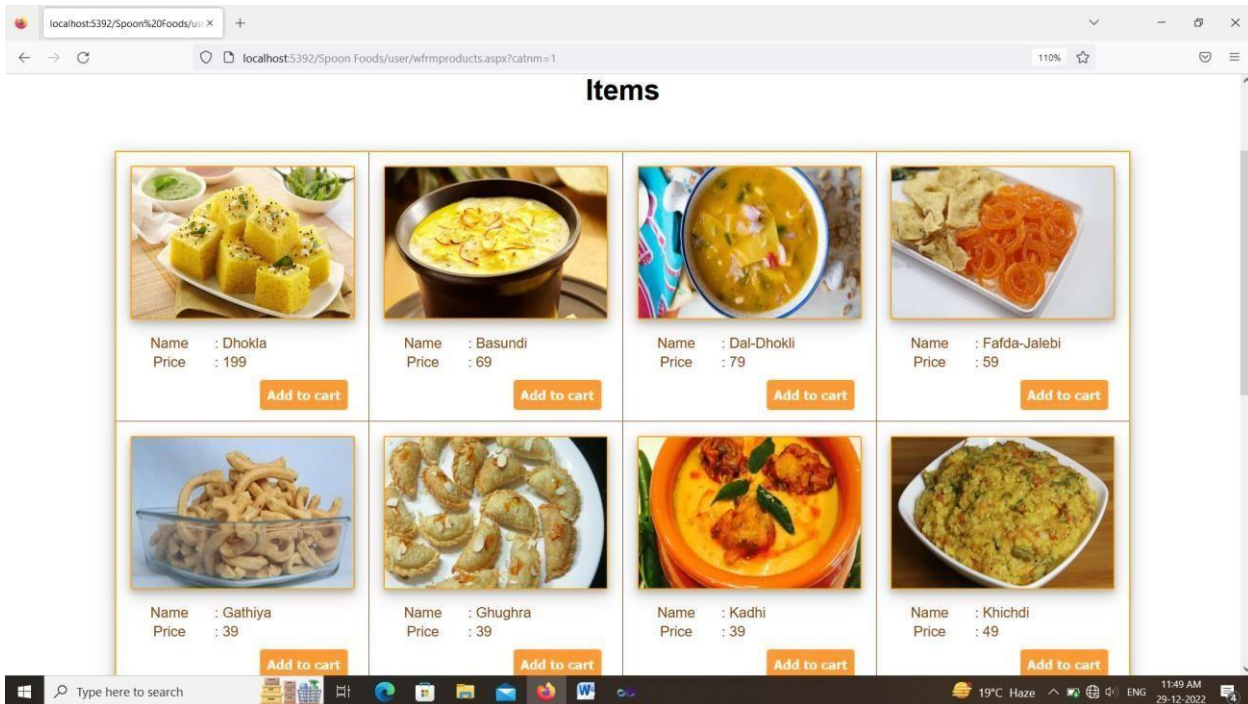
Already have an account?

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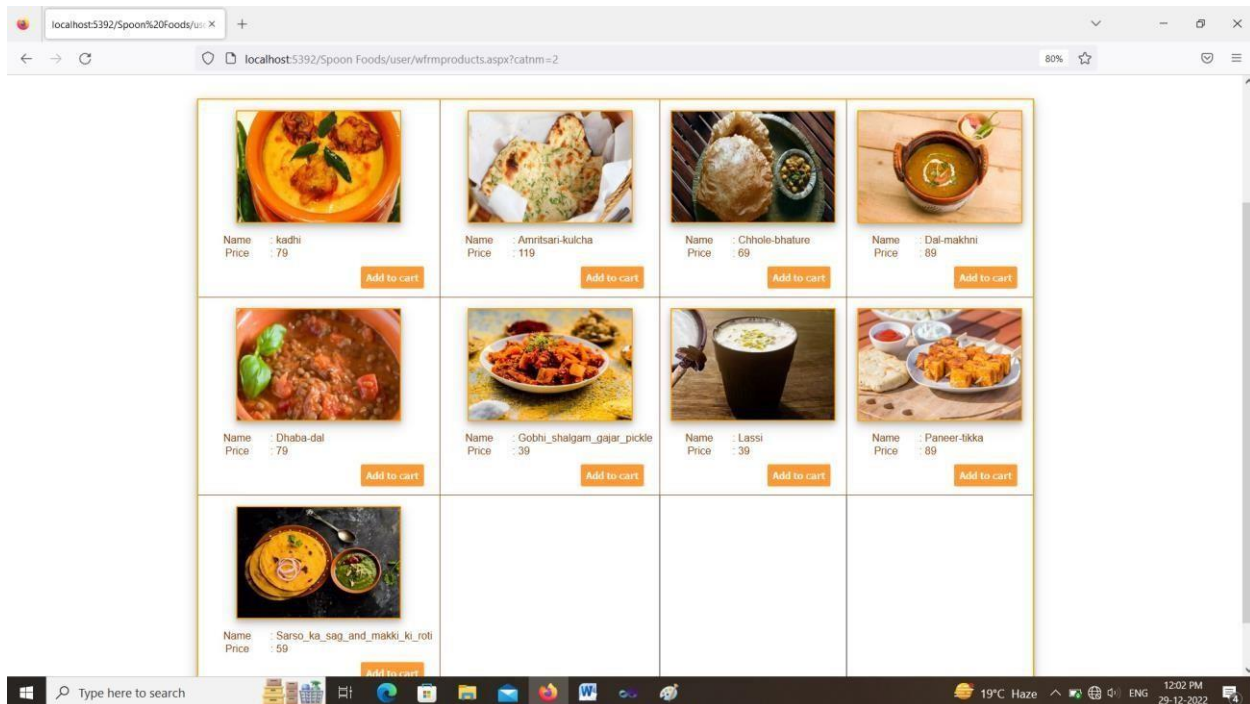
Home Page:-



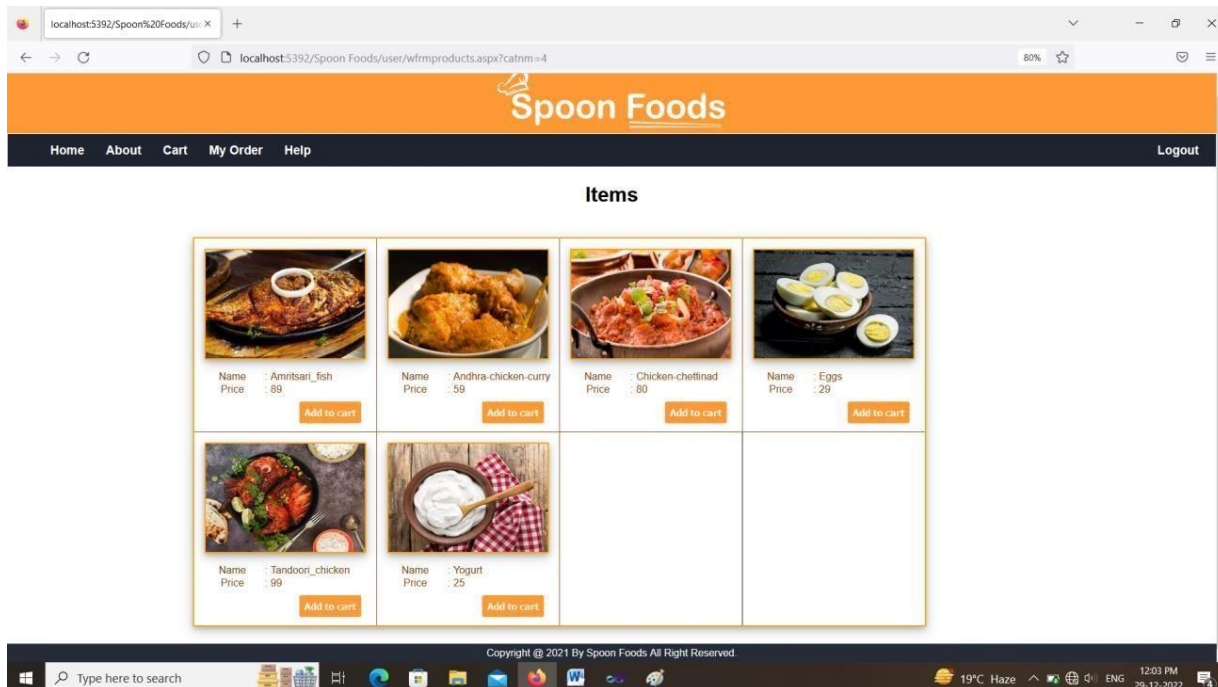
Gujarati Dishes:-



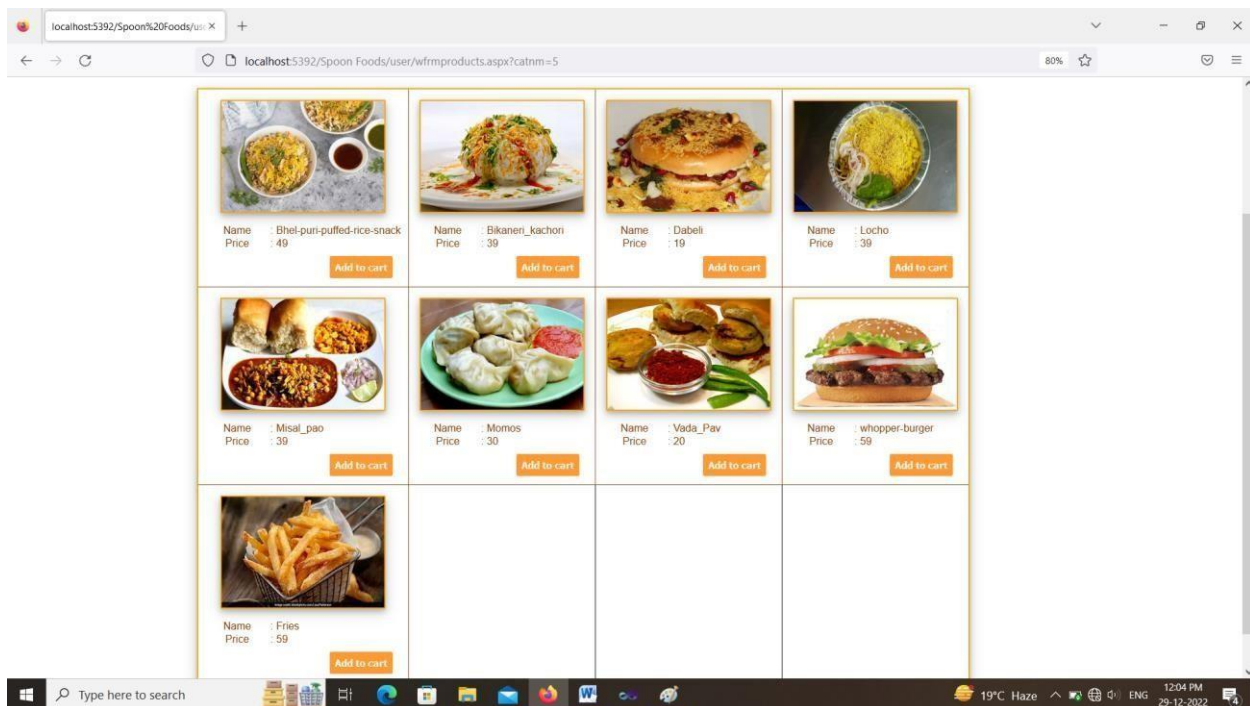
Punjabi Dishes:-



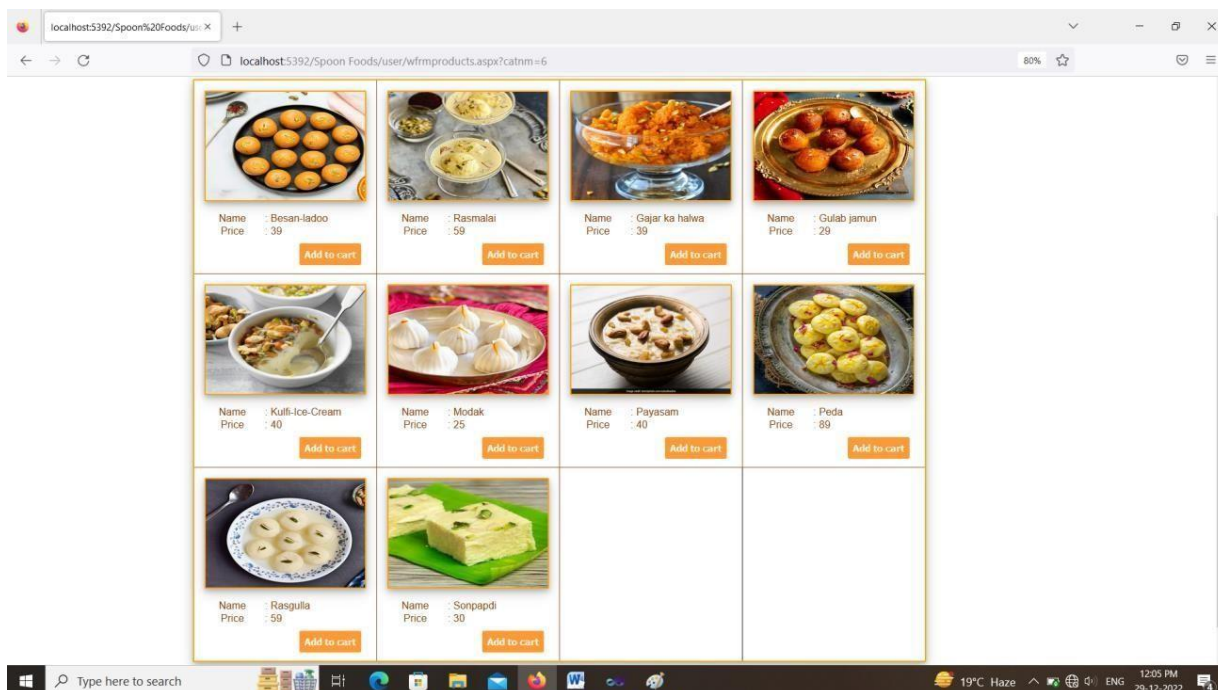
Non-Vegetarian Dishes:-



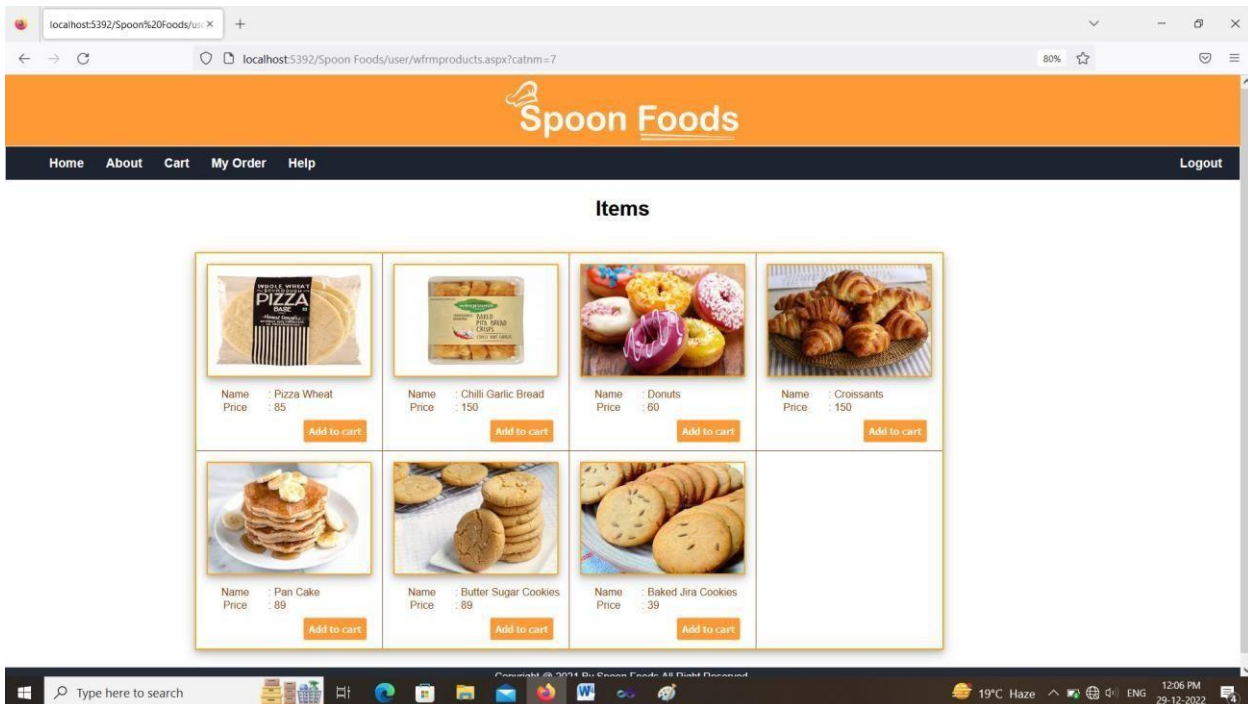
Fast-Food:-



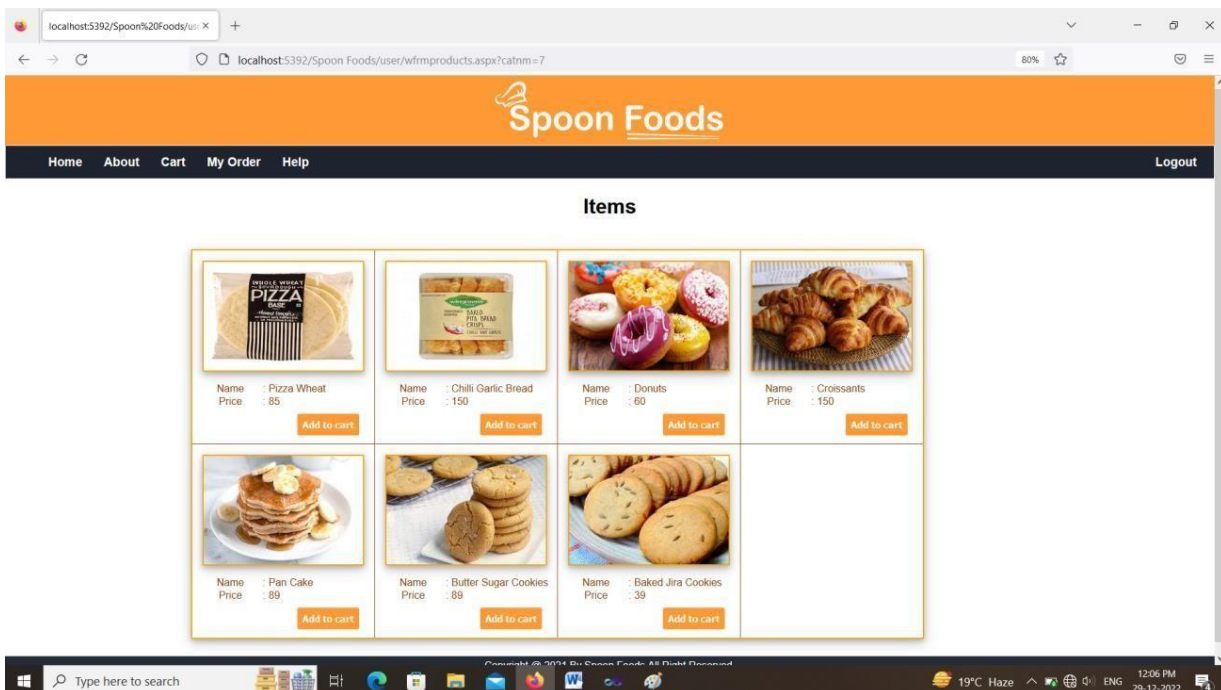
Desserts:-



Bakery:-



Cold Drinks:-



Soups:-

The screenshot shows the 'Items' page of the Spoon Foods website. The page features a grid of six soup items, each with a photo, name, price, and an 'Add to cart' button. The items are:

| Name | Price |
|---------------------------|-------|
| Bacon corn | 100 |
| creamy leek soup | 85 |
| Italian wedding soup | 99 |
| Potato soup | 89 |
| Tomato and red paper soup | 110 |
| Tortilla Soup | 120 |

My Cart:-

The screenshot shows the 'My Cart' page of the Spoon Foods website. The page displays a table with three items in the cart, each with an 'Edit Delete' link. The items are:

| | Image | Name | Price | Quantity | Total |
|-----------------------------|-------|-----------------|-------|----------|-------|
| Edit Delete | | Gathiya | 39 | 1 | 39 |
| Edit Delete | | Basundi | 69 | 1 | 69 |
| Edit Delete | | Kulfi-Ice-Cream | 40 | 1 | 40 |

Grand Total: 148

[Add More Items](#) [Check Out](#)

Order Detail:-

localhost:5392/Spoon Foods/user/wfrmsummary.aspx

80%

Spoon Foods

Home About Cart My Order Help Logout

Order Details

| No. | Name | Price | Quantity | Total |
|-----|----------------|-------|----------|-------|
| 16 | Gathiya | 39 | 1 | 39 |
| 17 | Basundi | 69 | 1 | 69 |
| 18 | Kufi-Ice-Cream | 40 | 1 | 40 |

Order Number : SP001 Total Bill: 148

Address Details

☐ Existing Address ☐ Change Address

Go With Current Address

Address : 98,98,98,876543.sk

Payment

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Payment Method:-

localhost:5392/Spoon Foods/user/wfrmpayment.aspx

80%

Spoon Foods

Home About Cart My Order Help Logout

Payment

Choose Payment Method

☐ Credit/Debit Card ☐ Google Pay ☐ UPI ☒ Cash On Delivery

Cash On Delivery

Pay at Delivery

Place Order

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Ordered Placed:-

localhost5392/Spoon%20Foods/... X






localhost5392/Spoon Foods/user/wfrmmymorder.aspx

80%

Spoon Foods

Home About Cart My Order Help Logout

My Orders

| Product | Order ID | Product Name | Price | Quantity | Total | Order Status | Order Date |
|---|----------|-----------------|-------|----------|-------|--------------|------------------------|
|  | 7 | Vada_Pav | 20 | 1 | 20 | Pending | 29-12-2022 12:00:00 AM |
|  | 8 | Dabeli | 19 | 1 | 19 | Pending | 29-12-2022 12:00:00 AM |
|  | 9 | Gathiya | 39 | 1 | 39 | Pending | 29-12-2022 12:00:00 AM |
|  | 10 | Basundi | 69 | 1 | 69 | Pending | 29-12-2022 12:00:00 AM |
|  | 11 | Kulfi-Ice-Cream | 40 | 1 | 40 | Pending | 29-12-2022 12:00:00 AM |

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Type here to search

19°C Haze 12:13 PM 29-12-2022

Help:-

localhost5392/Spoon%20Foods/... X

localhost5392/Spoon Foods/user/wfrmhlp.aspx

80%

Spoon Foods

Home About Cart My Order Help Logout

DO YOU NEED HELP ?

Address
30-35,Ground Floor,Polaris Arcade
Gujarat,India

Let's Talk
+911234567890

General Support
info@spoonfoods.com

Name :

Email :

Phone :

Choose Query :
Order Related Issue

Order No. :

Message :

Send

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Type here to search

19°C Haze 12:15 PM 29-12-2022

Admin Login:-

localhost:5392/Spoon Foods/admin/wfmlogin.aspx

Spoon Foods

Admin Login

Username

Password

Login

Forgot password ?

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Product Category:-

localhost:5392/Spoon Foods/admin/wfmproductcatagory.aspx

Spoon Foods Product category Products Orders Payments Users Admin Dashboard Logout

Product Catagory

Category Name :- Image :- No file selected. **Add Catagory**

| | Category Id | Category Name | Category Image |
|---|-------------|-----------------------|----------------|
| Edit Delete | 1 | Gujarati Dishes | |
| Edit Delete | 2 | Punjabi Dishes | |
| Edit Delete | 4 | Non-Vegetarian Dishes | |
| Edit Delete | 5 | Fast Food | |
| Edit Delete | 6 | Desserts | |
| Edit Delete | 7 | Bakery | |

Order Detail:-

| Order ID | User ID | Product ID | Product | Product Name | Price | Quantity | Payment ID | Order Status | Order Date |
|-------------------------------|---------|------------|---------|----------------------|-------|----------|------------|--------------|------------------------|
| Edit Delete 1 | 2 | 3 | | Dal-Dhokli | 79 | 2 | 4 | Scheduled | 16-09-2021 12:00:00 AM |
| Edit Delete 2 | 2 | 44 | | whopper-burger | 59 | 1 | 4 | Pending | 16-09-2021 12:00:00 AM |
| Edit Delete 3 | 2 | 73 | | Italian wedding soup | 99 | 1 | 4 | Pending | 16-09-2021 12:00:00 AM |
| Edit Delete 4 | 2 | 38 | | Bikaneri_kachori | 39 | 2 | 4 | Pending | 16-09-2021 12:00:00 AM |
| Edit Delete 5 | 7 | 67 | | Coca cola | 25 | 1 | 4 | Pending | 13-12-2022 12:00:00 AM |
| Edit Delete 6 | 7 | 65 | | Mojito | 144 | 1 | 4 | Pending | 13-12-2022 12:00:00 AM |
| Edit Delete 7 | 9 | 43 | | Vada_Pav | 20 | 1 | 4 | Pending | 29-12-2022 12:00:00 AM |
| Edit Delete 8 | 9 | 39 | | Dabeli | 19 | 1 | 4 | Pending | 29-12-2022 12:00:00 AM |
| Edit Delete 9 | 9 | 5 | | Gathiya | 39 | 1 | 4 | Pending | 29-12-2022 12:00:00 AM |

Payments Details:-

| Payment ID | Product ID | User ID | Payment Type | Total | Paid | Date |
|------------|------------|---------|------------------|-------|------|------------------------|
| 1 | 3,44 | 2 | UPI | 217 | Paid | 16-09-2021 12:00:00 AM |
| 2 | 73,38 | 2 | UPI | 177 | Paid | 16-09-2021 12:00:00 AM |
| 3 | 67,65 | 7 | Google Pay | 169 | Paid | 13-12-2022 12:00:00 AM |
| 4 | 43,39 | 9 | Cash On Delivery | 39 | Paid | 29-12-2022 12:00:00 AM |
| 5 | 5,2,50 | 9 | Cash On Delivery | 148 | Paid | 29-12-2022 12:00:00 AM |

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Users:-

localhost:5392/Spoon%20Foods/... X

localhost:5392/Spoon Foods/admin/wfmuser.aspx 90% ☆

Spoon Foods Product category Products Orders Payments Users Admin Dashboard Logout

Users Details

| | User ID | User Email | User Password | User Name | Phone No. | User Address |
|--------|---------|------------------------------|---------------|-----------|------------|---|
| Delete | 1 | sahibbarvaliya2002@gmail.com | sahil123 | Sahil | 8238272867 | 101,add,landmark,395010,gujarat |
| Delete | 2 | urvishvekariya2001@gmail.com | urvish123 | Urvish | 9874552122 | 123,address,landmark,395001,gujarat |
| Delete | 3 | rohanvaghasiya@gmail.com | rohan123 | Rohan | 9845232154 | 123,address,landmark,395001,gujarat |
| Delete | 4 | bharat.vavdiya@gmail.com | bharat123 | Bharat | 9845625122 | 123,address,landmark,395001,gujarat |
| Delete | 5 | jk@gmail.com | jk123456 | jk | 9898989898 | 23,hahtsani road,savarkundia,364515,guj |
| Delete | 6 | jjk@gmail.com | jjk123456 | jjk | 9876578321 | 24,neddi road,sk,364515,gujrat |
| Delete | 7 | arzoogmail.com | arzoog123 | arzoog | 9876567890 | 23,home,sk,364515,gujrat |
| Delete | 8 | arzoobhuva@gmail.com | arzoog123 | ARZOO | 1234567890 | 144,SK,savarkundia,364515,gujrat |
| Delete | 9 | vivek1@gmail.com | vivekzala | vivek | 9876543210 | 98,98,98,876543,sk |
| Delete | 10 | swara12@gmail.com | swara@123 | swara | 9375499812 | 122,navsari,navsari,3954001,gujrat |

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Type here to search 19°C Haze 12:28 PM 29-12-2022

Future Enhancement:-

We think that not a single project is ever considered as complete forever. Because our mind is always thinking something new and our necessities also are growing day by day. We always want something more than what we have. Our application also,

If you see at the first glance then you find it to be complete but we want to make its till mature and fully automatically.

This project can be easily implemented under various situations. We can add new features as and when we require. Reusability is possible as and when require in this project. There is flexibility in all the modules. We can also include online payment services to this project using PayPal. This will help customers to pay online for their purchases using Credit/Debit card. There are many features which could be added to this project for making this project more productive.

- ✓ Providing online Placement Record through hour site
- ✓ Providing personalized in box to the user
- ✓ Providing video conferencing with the Artists
- ✓ Providing links to news which will elaborate more information about them
- ✓ Providing Ajax technology refreshing in our website

FUTURE WORK

The following section describes the work that will be implemented with future releases of the software.

- ✓ Customize orders :Allow customers to customize food orders
- ✓ Enhance User Interface by adding more user interactive features. Provide Deals and promotional
- ✓ Offer details to home page. Provide Recipes of the Week /Day to Home Page
- ✓ Payment Options: Add different payment options such as Google Pay, Cash on Delivery, Cards etc. Allow to save payment details for future use.
- ✓ Allow to process an order as a Guest
- ✓ Delivery Options: Add delivery option
- ✓ Order Process Estimate: Provide customer a visual graphical order status bar
- ✓ Order Status: Show only Active orders to Restaurant Employees.
- ✓ Order Ready notification: Send an Order Ready notification to the customer
- ✓ Restaurant Locator: Allow to find and choose an eatery by restaurant
- ✓ Integrate with In store touch screen devices like I Pad
- ✓ Making a mobile app for the user is also a first step development.

CONCLUSION

The software development is never completed. There is always a need for modification. There could have been other approaches to implement the system. I have tried to my level best to make the system as interactive as possible. The system has been developed with much care and free of errors and at the same time it is efficient and less time consuming. The purpose of this project was to develop a web application for purchasing items from a shop.

This project helped us in gaining valuable information and practical knowledge on several topics like designing web pages using html & css, usage of responsive templates, designing of android applications, and management of database using my sql. The entire system is secured. Also the project helped us understanding about the development phases of a project and software development life cycle. We learned how to test different features of a project.

This project has given us great satisfaction in having designed an application which can be implemented to any nearby shops or branded shops selling various kinds of products by simple modifications.

About this Project

1. It is simple and user friendly
2. Platform independent
3. Wide scope for future expansion
4. Manual as well as paper works can be fully eliminated in the billing branch
5. Accuracy and reliability are surely increased
6. It make sure that unauthorized personal cannot execute this program

System security refers to the technical innovations and procedures applied to hardware and operating system. To protect against deliberate or accidental damage from a defined threat. In contrast, data security is the protection of data, some loss, disclosure, modification and destruction. The system security problem can be provided into four related issues.

1. Security
2. integrity
3. privacy
4. access procedures

To implement this application the web server used is Microsoft IIS and the Server side Technology Used to create the Web Pages is PHP. PHP has several Advantages Such as Enhanced Performance, Performance, Scalability, Built-in Security and Simplicity

PROJECT SCHEDULING:

Project scheduling consists of identifying the tasks needed to complete the project, determine the dependency among different tasks, plan the starting and ending dates for various tasks and determine the chain of tasks that determine the duration of the project. In Project scheduling I decided the order in which to do the tasks, which I have described in work break down structure.

| Process | Date | | | | | |
|---------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | 30-11-22 to 07-12-22 | 09-12-22 to 11-12-22 | 12-12-22 to 22-12-22 | 23-12-22 to 03-01-23 | 05-01-23 to 25-01-23 | 26-01-23 to 08-02-23 |
| Deciding Definition | | | | | | |
| Analysis | | | | | | |
| Design | | | | | | |
| Coding & Testing | | | | | | |
| Documentation | | | | | | |
| Deployment | | | | | | |

BIBLIOGRAPHY

During the development of our system, we have taken the reference from Books and journals, which we would like to mention in this section.

These books acted as our tutors during the system development.

System Analysis And Design

- Kenneth E. Kendall, Julie E. Kendall

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