UNIVERSITY OF MUMBAI

A PROJECT REPORT ON

“Canteen Management System”

SUBMITTED BY

Under the guidance of

(Prof. Pradnya Mhatre)

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DECLARATION

I hereby declare that the project entitled, “Canteen Management System” done at place where the project is done, has not been in any case duplicated to submit to any other university for the award of any post-graduation degree. To the best of my knowledge other than me, no one has submitted to any other university.

The project is done in fulfillment of the requirements for the award of --- degree of ---- to be submitted as ------- project as part of our curriculum.

ABSTRACT

In today's age of fast canteen automation in the canteen, many canteens have chosen to focus on quick preparation and speedy delivery of orders. Until very recently, all of this delivery of orders were placed over the phone, but there are many advantages of this system, including the inconvenience of the customer needing to have a physical copy of the menu, lack of visual confirmation that the order was placed correctly, and the necessity for the canteen to have an employee answering the phone and taking orders.

The main advantage of an online ordering system is that it greatly simplifies the ordering process for both the customer and the canteen. When the customer visits the ordering web page, they are presented with an interactive and up-to-date menu, complete with all available options and adjusting prices based on the selected options. After making a selection, the item is then added to their order, which the customer can review the details at any time before checking out. This provides instant visual confirmation of what was selected.

This system also greatly lightens the load on the canteen's end, as the entire process of taking orders is automated. Once an order is placed on the web page, it is entered into the database and then retrieved, in pretty much real-time, by a web-based application on the canteen's end. Within this application, all items in the order are displayed, along with their corresponding options and delivery details, in a concise and easy to read manner. These allow canteen employees to quickly go through the orders as they are placed and produce the necessary items with minimal delay and confusion.

INDEX

Sr. No.	Contents	Page No.
1	**Introduction**	
	1.1 Introduction	**8**
	1.1.1 Problem definition	**8**
	1.1.2 Objectives of Project	**8**
	1.1.3 Scope of Project	**9**
	1.2 Technical Details	**10**
	1.2.1Overview of Front End	**10**
	1.2.2Overview of Back End	**12**
2	**System Study and Planning**	
	2.1 System Study	**13**
	2.1.1 Existing System	**13**
	2.1.2 Disadvantages of Existing system	**13**
	2.1.3 Proposed System	**14**
	2.2 System Planning and Schedule	**15**
	2.2.1S/W development Model	**16**
3	**System Design**	
	3.1 Software Requirement Specification(SRS)	**18**
	3.1.1Introduction of SRS	**18**
	3.1.2Technology Requirements	**19**
	3.1.2.1Hardware to be used	**20**
	3.1.2.2Software/tools to be used	**20**
	3.2 Detailed life Cycle of the Project	**21**
	3.2.1Modules	**21**

	3.2.2Object Oriented Analysis & Design Diagrams	**22**
	3.2.2.1 Use Case Diagram	**22**
	3.2.2.2 Activity Diagram	**23**
	3.2.2.3 Class Diagram	**24**
	3.2.2.4 Sequence Diagram	**25**
	3.2.2.5 Flowchart/DFD/ER diagram	**27**
	3.2.3Database	**28**
	3.2.3.1Database Table	**28**
	3.2.4 I/O Screen Layout	**29**
4	**Testing**	**34**
	4.1 Methodologies used for testing	**34**
	4.2 Types of Testing	**36**
5	**Conclusion**	**38**
6	**Future Enhancements**	**39**
7	**References**	**40**

Chapter 1: Introduction

1.1 Introduction

1.1.1 Problem Definition:

In today's age of fast canteen automation in the canteen, many canteens have chosen to focus on quick preparation and speedy delivery of orders. Until very recently, all of this delivery of orders were placed over the phone, but there are many advantages of this system, including the inconvenience of the customer needing to have a physical copy of the menu, lack of visual confirmation that the order was placed correctly, and the necessity for the canteen to have an employee answering the phone and taking orders.

The main advantage of an online ordering system is that it greatly simplifies the ordering process for both the customer and the canteen. When the customer visits the ordering web page, they are presented with an interactive and up-to-date menu, complete with all available options and adjusting prices based on the selected options. After making a selection, the item is then added to their order, which the customer can review the details at any time before checking out. This provides instant visual confirmation of what was selected.

This system also greatly lightens the load on the canteen's end, as the entire process of taking orders is automated. Once an order is placed on the web page, it is entered into the database and then retrieved, in pretty much real-time, by a web-based application on the canteen's end. Within this application, all items in the order are displayed, along with their corresponding options and delivery details, in a concise and easy to read manner. These allow canteen employees to quickly go through the orders as they are placed and produce the necessary items with minimal delay and confusion.

1.1.2 Objective:

Our objective is to make a platform independent application to maintain a database of all orders ordered from various sources and all the different services required by each of them. Established canteen automation practices should provide the needed connectivity and accountability between those two operational units, and when managed properly, enhances the effectiveness of both operations.

- Registration
- Order
- Payment

- Update

The above are the modules of canteen automation system

1) To order food rapidly.
2) To make it convenient for people who have limited time.
3) Cost reduction.
4) Reduced paper work.
5) Computerized Oder and billing system.

1.1.3 Scope of Project:

The system proposed focuses at canteen business process automation i.e. to digitalize all the processes and management of canteen.

- Efficient use of resources through rising productivity by automation
- The application provides a report that could be used for different purposes, such as accounting management and reference for future.
- It satisfies the requirement of users.
- Understanding the working of system is not complicated in case of both the users and the admin.
- Easy to operate.
- Have a good UI.
- Scalable.

The present system depends on the online management. This can be improvised by the automation of the software's. The data storing will take's time and it requires the manual observation. With the help of the automation it would store the data instantly. This will reduce the effort time by the manual observation. The updated data will be finalized and alerts time to time to the admin. The machine learning algorithms can also be used for the prediction of the most preferred item by the customers. The customers will give the feedback and this will be sent to the database. Using the machine learning algorithms these feedbacks will be analyzed and preferred food item will be displayed to the regular users on the online system. The menu list can also be updated according to the admin's choice by the shortcut methods used in the learning algorithms. The wavelets technology will help in the recognition of the user. It is done by the voice recognition of the user where it does convert them into the small wavelets which on average final wave of the user's voice will be generated.

1.2: Technical Details

1.2.1 Overview of Front End:

❖ **Visual Studio:**

- **Microsoft Visual Studio** is an integrated development environment (IDE) from Microsoft. It is used to develop computer programs, as well as websites, web apps, web services and mobile apps. Visual Studio uses Microsoft software development platforms such as Windows API, Windows
- Forms, Windows Presentation Foundation, Windows Store and Microsoft Silverlight. It can produce both native code and managed code.
- Visual Studio supports 36 different programming languages and allows the code editor and debugger to support (to varying degrees) nearly any programming language, provided a language-specific service exists. Built-in languages include C, C++, C++/CLI, Visual Basic
- .NET, C#, F#, JavaScript, TypeScript, XML, XSLT, HTML, and CSS. Support for other languages such as Python, Ruby, Node.js, and M among others is available via plug-ins. Java (and J#) were supported in the past.
- The most basic edition of Visual Studio, the Community edition, is available free of charge. The slogan for Visual Studio Community edition is "Free, fully-featured IDE for students, open-source and individual developers".
- The currently supported Visual Studio version is 2019.

❖ **C#:**

- C# is a general-purpose, modern and object-oriented programming language pronounced as “C Sharp”. It was developed by Microsoft led by Anders Hejlsberg and his team within the *.NET* initiative and was approved by the European Computer Manufacturers Association (ECMA) and International Standards Organization (ISO). C# is among the languages for Common Language Infrastructure. C# is a lot similar to Java syntactically and is easy for users who have knowledge of C, C++ or Java.

❖ **HTML:**

- Hypertext markup language in computing, Hypertext markup language (HTML) is a markup language designed for the creation of web pages with hypertext and other information to be displayed in a web browser. HTML is used to structure information denoting certain text as headings, paragraphs, lists and so on and can be used to describe, to some degree, the appearance and semantics of a document. HTML's grammar structure is the HTML DTD that was created using SGML syntax.
- The HTML document format is used on the web. Web pages are built with HTML tags(codes) Embedded in the text, HTML defines the page layout, fonts, and graphic element as well as the hypertext links to other documents on the web. Each link contains the URL, or address, of a web page residing on the same server or any server worldwide, hence "World Wide Web".
- HTML 2.0 was defined by the internet Engineering Task Force (IETF) with a basic set of features, including interactive forms capability. Subsequent versions added more features such as blinking text, custom backgrounds and tables of contents. However, each new version requires agreement on the tags used, and browsers must be modified to implement those tags.
- HTML is a markup language (the ML in HTML) that user a fixed set of markup tags. A markup language can also be thought of as a "Presentation Language", but it is not a programming language. You cannot "if this-do that" like you can in java, JavaScript or C++. However, in order to make pages interactive, programming code can be embedded in an HTML page. For example, JavaScript is widely interspersed in Web pages (HTML pages) for that purpose.
- HTML was conceived as a simple markup language to render research documents. No one envisioned Web pages turning into multimedia extravaganzas. HTML pages have been reworked, jure-rigged and extended into full-blown applications. As a result, the source code behind today's Web pages is often a hideous concoction of tags and scripting.

❖ **CSS:**

- Cascading style sheets Cascading style sheets (CSS) is a stylesheet language used for describing the look and formatting of document written in a markup language.
- While most often used to change the style of web pages and user interfaces written in HTML and XHTML, the language can be applied to any kind of XML document, including plain XML, SVG, and XUL.
- Along with HTML and JavaScript, CSS is a cornerstone technology used by most websites to create visually engaging Webpages, user interfaces for web applications, and user interfaces for many mobile applications.

1.2.2 Overview of Back End:

❖ **SQL:**

- **SQL** (**Structured Query Language**) is a domain-specific language used in programming and designed for managing data held in a relational database management system (RDBMS), or for stream processing in a relational data stream management system (RDSMS). It is particularly useful in handling structured data, i.e. data incorporating relations among entities and variables.

Chapter 2: System Study and Planning

2.1 System Study:

2.1.1 Existing System:

Because the present technology is book-based, it has a huge downside of data supremacy, calculations ought to be rendered manually. Another threat is that the data can be easily manipulated or lost. The cash payment also has a big drawback, the user needs to have cash carried with him/her. And he/she wants to pay the precise amount in any other case there is problem for the final amount. If the billing person provides a slip signed for remaining amount to be paid, he/she has to carry that along when he/she goes to canteen next time. One big concern is that in educational institutions, students / staffs will have food in the same cafe over the course of their studies or employment. In such instances a record of student's purchase is maintained in a bill book. The person in the bill counter manages the students' order and bill reports on a regular schedule, then at the month's end amount to be paid by individual customer is evaluated. This system has problem of maintaining paper primarily based records. Such records are in danger of being ruined, and the student payment report information might be missed.

In existing system there are few problems:

- For placing any orders customers have to visit canteen to know about the food items and then place order and pay. In this method time and manual work is required.
- Every canteen needs certain employees to take order over phone or in-person , to offer a rich dining experience and process the payment.
- Many canteens stores and maintain their day to day transactions manually.

2.1.2 Disadvantages of Existing system:

- Does not keep track of stock.
- No customize cake.
- Time consuming.
- No live tracking of order.
- Does not provide the preview of the product.
- Complication in payment (paytm, cash on delivery, etc).

2.1.3 Proposed System:

This system is generally advantageous for avoiding spending time waiting in the queue by posting orders directly to the kitchen without delay and also by scheduling orders ahead of time. In this system customer can view food details by opening the site. User friendliness is provided in the application with various controls provided by system. The system makes the overall project management much easier and flexible. It can be access over the Intranet. In this system contains different offers and food. The proposed system is a web based application and maintains a centralized repository of all related information. The system allows one to easily access the relevant information and make necessary order. Users can decide about food they want to order and make order online.

The proposed “Canteen Management System” is economically feasible because

- The system requires very fewer time factors as compared to manual system.
- The system will provide fast and efficient automated environment instead of slow and error prone manual system, thus reducing both time and manpower spent in running the system.
- The system will have GUI interface and very less user training is required to learn it.

2.2 System Planning and Schedule:

2.2.1 S/W development Model:

Why not Water fall model?

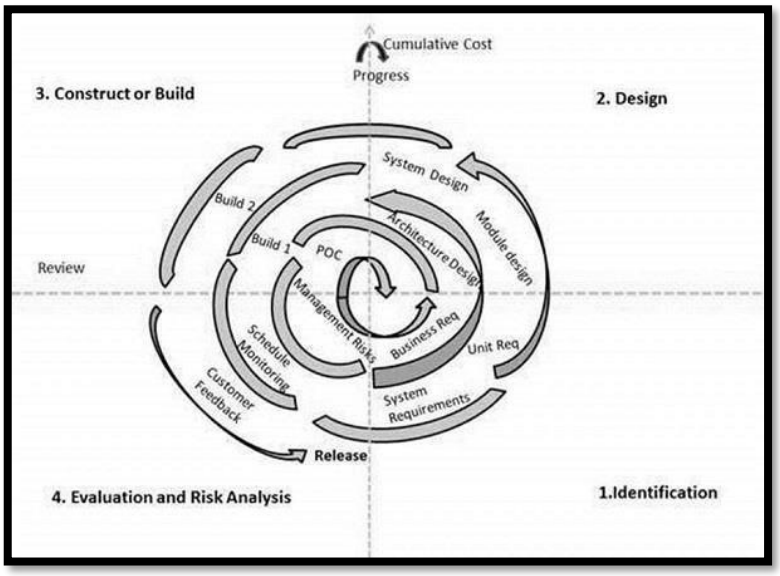
Water fall model can be adopted because in our case because requirements are known in advance but there are some limitations of waterfall model due to which it is not feasible to adopt:

- No parallelism of work.
- Time consuming.

Why Spiral Model?

The development life cycle model chosen for project is spiral model. This Spiral Model is a risk-driven process model generator for software projects. Based on unique risk patterns of given project, the spiral model guides a team to adopt elements of one or more process models, such as incremental waterfall or evolutionary prototyping.

- The spiral model is a risk driven process model generator for software project.
- This provides support for risk handling.
- It is an iterative model.
- It allows incremental releases of product or incremental refinement through each iteration around the spiral



Phases of spiral model are:

1. Identification
2. Design
3. Construct or Build
4. Evaluation and risk analysis

1. **Identification:**

- This phase consists of gathering the requirements for this project.

2. **Design:**

- This interface of system is developed keeping in mind that it should be good looking, attract at first sight, easy to understand and self-explanatory.

3. **Construction:**

- The scope clearly defines the boundaries of proposed system.

1. The system will bridge the gap between the seller and the customer.
2. They all can communicate each other and availability of thing will increase.

The main features while executions phases are:

- **Efficiency**

The Efficiency of any system is concerned with the minimum processing time as well as the optimal use of system resource in designing the proposed system; the efficiency factor has been taken well into consideration.

- **User-Friendly Interface**

The interface will be user friendly so that a common user can use It easily. It makes it very easy for user to jump from one section to another.

Another uniqueness of design_Id that it is based on fluid interface it can adjust itself accordingly to device in which system is being used.

- **Data Security and Integrity**

  Data Security and integrity is our top most priority we will make sure that private data of every single user remains confidential and never be compromised. For this purpose, we will use efficient security mechanisms.

- **Feasibility**

  Our application solution is aimed to provide with: Technology and Control.

- **Extensibility**

  Key features of proposed solution would be its extensibility. Our solution enables a new level's of remote automation, programmability and extensibility using modern technology.

- **Scalability**

  Scalability can be defined as the ease with which a system or components can be modified to fit the problems are. Our system will easily be modified.

4. Evaluation and risk analysis

- Risk Analysis include identifying, estimating and monitoring technical feasibility and management risks such as loss of internet connection or done legacy problems.

- Evaluation is the process which overcomes all the risk analysis and modified the risk analysis and modified the application and adds various data or keeps the application updated.

Chapter 3: System Design

3.1 Software Requirement Specification (SRS):

3.1.1 Introduction of SRS:

❖ **External Interface Requirement**

The external system is to assume full responsibility for storage functions as well as warehouse management and warehouse control for an entire warehouse. The interfaces in this section are specified by documenting: the name and description of each scheme, source or input, destination or output, range's, accuracy and tolerances, units of measure, timing, delay formats, and display formats and organization and data formats. The user interface required to be developed for the system should be user-friendly and attractive. The interface between the user and the system will be WIMP (Windows, Icons, Menu, Pointers) keeping in mind that the system is to be run through a web browser. All operations will be off point and click nature with all navigations performed through windows of the system specifically buttons and menus:
Buttons: the button is activated when the user will click on the left click of the mouse within the bounds of the button. And thus the action associated with it will be carried out.
Menu: All the operations will be arranged.

❖ **Functional requirements:**

- Functional requirements are those requirements that are used to illustrate the internal working nature of the system, the description of the system and explanation of each subsystem.
- It consists of what task the system should perform, the processes involve, which data should the system holds and the interfaces with the user.

❖ **Non-functional requirements:**

- It describes aspects of the system that are concerned with how the system provides the non-functional requirements i.e., it specifies the criteria that can be used to judge the system attributes:

✓ **Portability**: The system is developed for secured purpose, so it can't be portable.
✓ **Availability**: This system will available only until the system on which it is install, is running.
✓ **Scalability**: Applicable.

3.1.2 Technology Requirements:

1] Hardware requirement: -

- **Processor:** Intel dual core or above
- **Processor Speed:**1.0GHZ or above
- **RAM:** 2GB RAM or above
- **Hard Disk:** 500GB hard disk or above

2] Software Requirement:-

- **Language:** Microsoft Visual Studio 2008 or above
- **Database:** Microsoft SQL server 2008 or above

3] Functional Requirements:-

Users of the canteen management system, namely canteen customers, must be provided the following functionality:

- Create an account.
- Manage their account.
- Log into the system.
- Navigate the canteen's menu.
- Select an item from the menu.
- Customize options from 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 payment details.
- Place an order.
- Receive confirmation in the form of an order number.

4] Non-functional requirements:-

Performance criteria:

Time:

The elapsed time between the submission of order process between the customer and cashier in a canteen should be as minimum as possible.

User-friendly:

Our canteen automation system should be more users friendly. The user interface should be kept simple and uncluttered. Since the different type of people will interact with this process so out project should be very easy to them to understand.

Flexibility:

Our project should be so flexible that whenever we want to make changes in it very easily it can be done.

Extensibility:

It should be able to accommodate the variations like:

1. The different order should be handled easily.

2. It should be an option for cash on delivery, pay through card between customer and canteen.

Portable:

Our project should be portable on any platform and available on websites easily and at a faster speed than others.

Reusable:

All the customer web pages that are being used for customer information should be easily get processed so that many customers can interact with us very easily and very fast without any information destroyed.

3.1.2.1 Hardware to be used:

- **Processor:** Intel dual core or above
- **Processor Speed:**1.0GHZ or above
    - **RAM:** 2GB RAM or above
    - **Hard Disk:** 500 GB hard disk or above

3.1.2.2 Software/tools to be used:

- **Language:** Microsoft Visual Studio 2008 or above
- **Database:** Microsoft SQL server 2008 or above

3.2 Detailed life Cycle of the Project

3.2.1 Modules:

- **The front panel menu –** It shows the homepage of the system, sidebar menu contains the list of shortcut buttons that are frequently used in the system.
- **User Privileges Module** – this module will allow the administrator to create a user account with a specified list of module that can be accessed by a specific user.
- **User Authentication Module –** User authentication is a module of identifying the user and verifying that whether the user is allowed to login to the application or not. The main aim of this module is to authenticate the user and give access to the application to view or to search the medicines for their needs. Firstly, The user should register their details and then using their username and password they will access to the application.
- **Product Record Module –** this is the encoding module for the different products that are available in canteen. The said module can be accessed under the Admin Database.
- **Cart Module –** Cart module is to add the food to be ordering in the queuing system to add the food in the bucket and perform the checkout operation.
- **Inventory Module –** this module is under the Admin Database. This module displays the list of items and the quantity available on hand. Records can be printed using the built-in report module of the system.
- **Collectibles Module** – it is the module that displays the list of customers and the money they owed to the canteen. The module can be accessed under the Admin Database.
- **Admin Database module –** Admin database is given for the canteen management for analyzing the report of the entire system.

3.2.2 Object Oriented Analysis & Design Diagrams:

3.2.2.1) Use Case Diagram:-

A use case diagram in the Unified Modeling Language (UML) is a type of behavioral diagram defined by and created from a Use – Case analysis.

• Its purpose is to present a graphical overview of the functionality provided by a system in terms of actors, their goals (represented as use cases), and any dependencies between those use cases.

• The main purpose of use case diagram is to show what system functions are performed for which actor.

• Roles of the actors in the system can be depicted.

• Use Case diagrams are formally included in two modeling languages defined by the OMG: the Unified Modeling Languages (UML) and the System Modeling Language (SML).

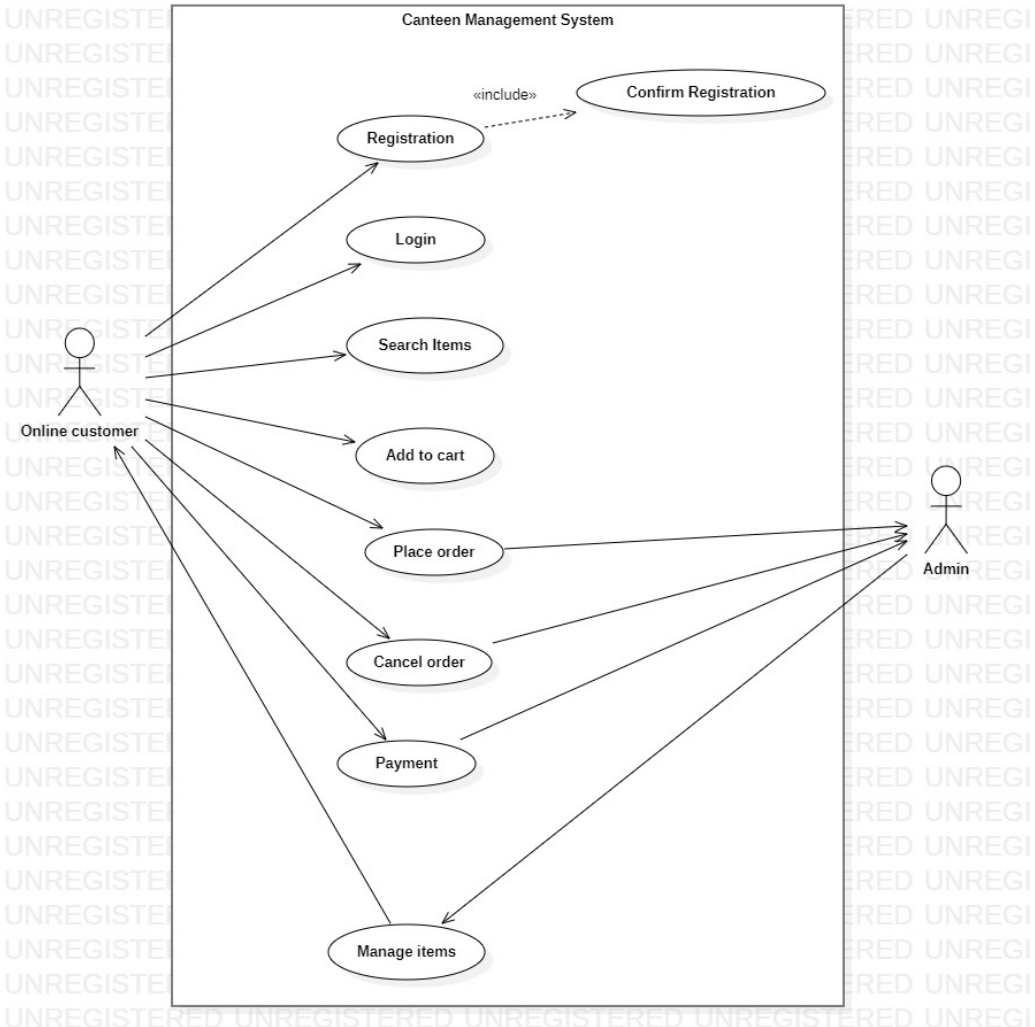


Figure: -Use Case diagram for Canteen Management System

3.2.2.2) Activity Diagram:-

- Activity diagram is another important diagram in UML to describe the dynamic aspects of the system.
- Activity diagram is basically a flowchart to represent the flow from one activity to another activity.
- The activity can be described as an operation of the system.
- The control flow is drawn from one operation to another.
- This flow can be sequential, branched, or concurrent.
- Activity diagrams deal with all type of flow control by using different elements such as fork, join, etc.

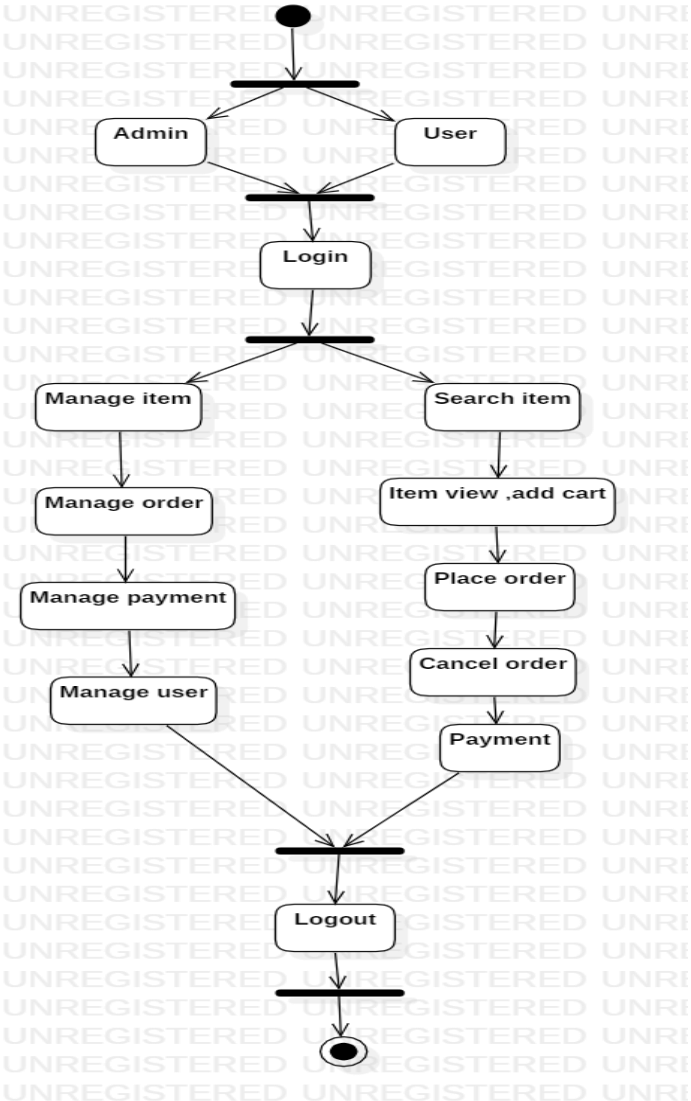


Figure: -Activity diagram for Canteen Management System

3.2.2.3) Class Diagram:-

• In software engineering, a class diagram in the Unified Modeling Language (UML) is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects.

• The class diagram is the main building block of object-oriented modeling.

• It is used both for general conceptual modeling of the systematic of the application, and for detailed modeling translating the models into programming code.

• Class diagrams can also be used for modeling.

• The classes in a class diagram represent both the main elements, interactions in the application, and the classes to be programmed.

• The + sign indicates that the entity are public.

• The – sign indicate that the entity are private.

• The # sign indicate that the entity are protected

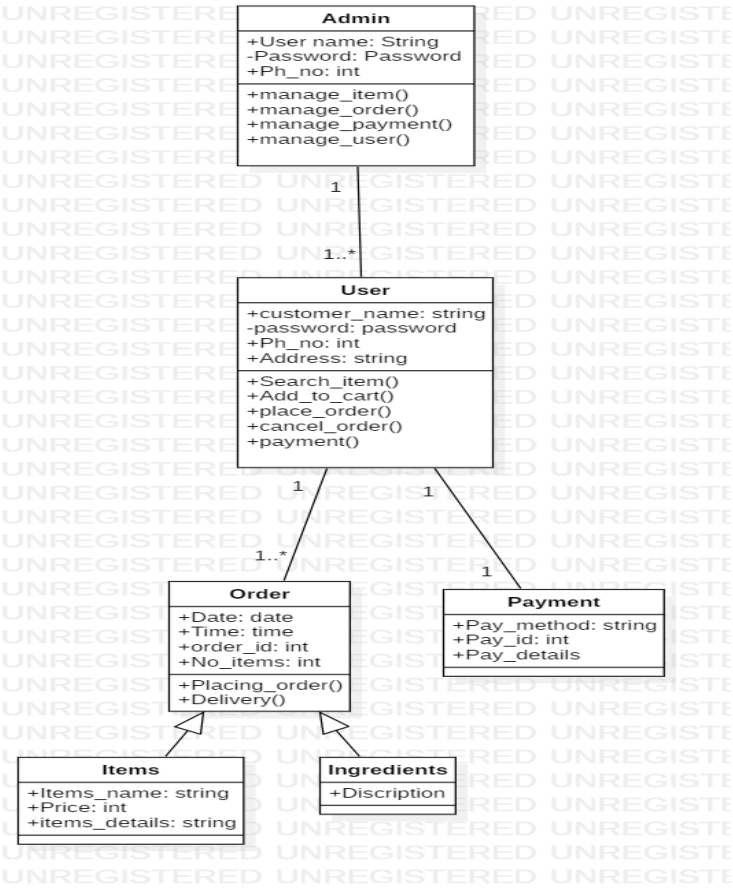
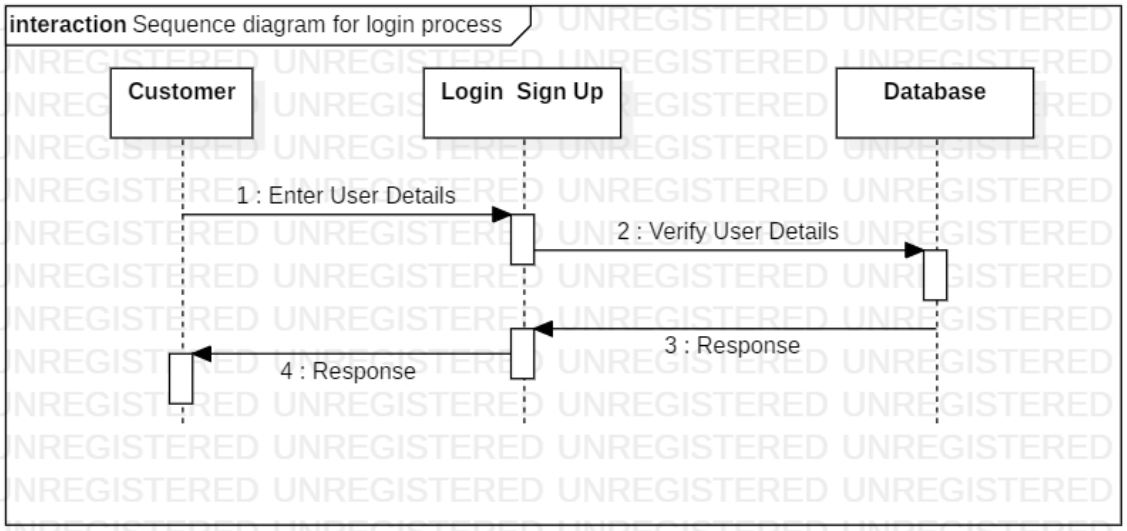


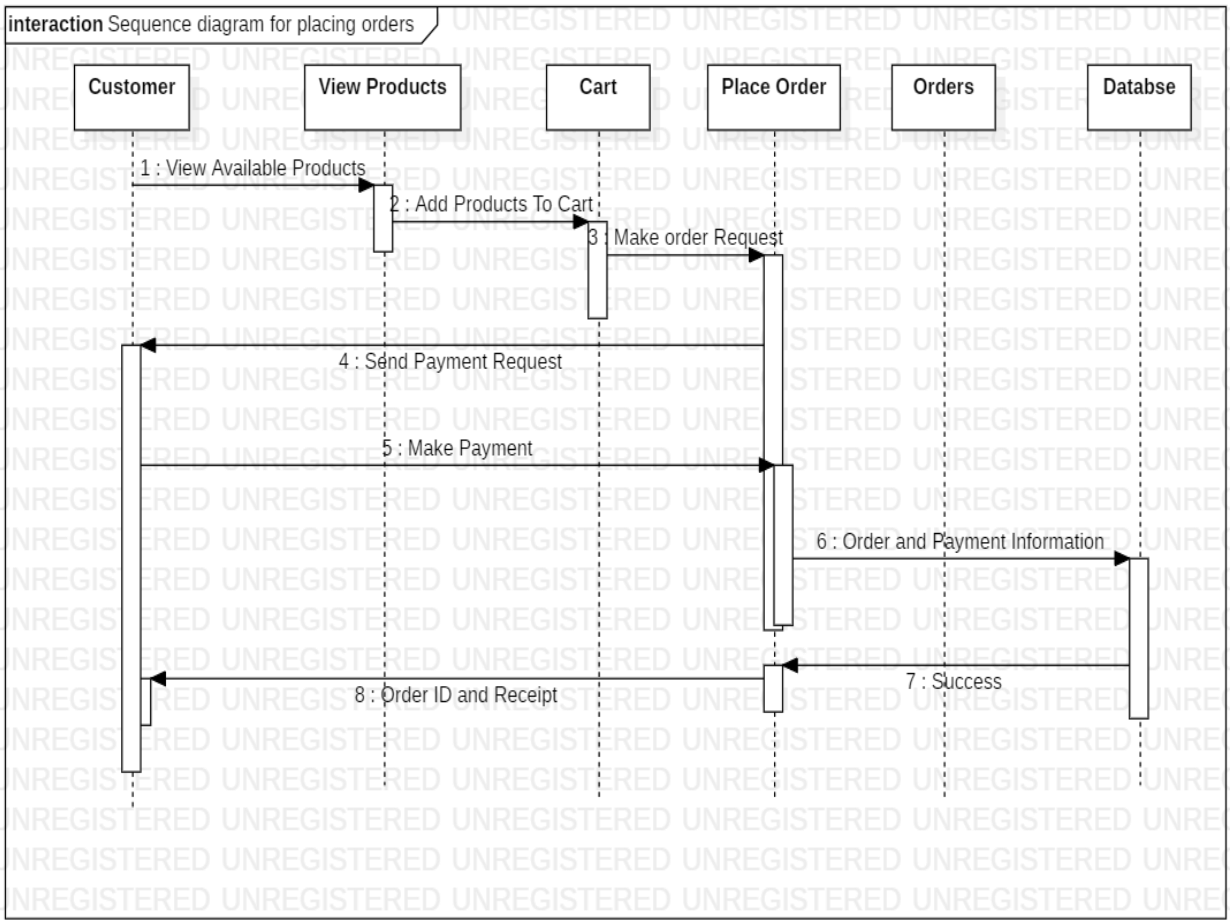
Figure: -Class diagram for Canteen Management System

3.2.2.4) Sequence Diagram:-

A. Sequence diagram for login process

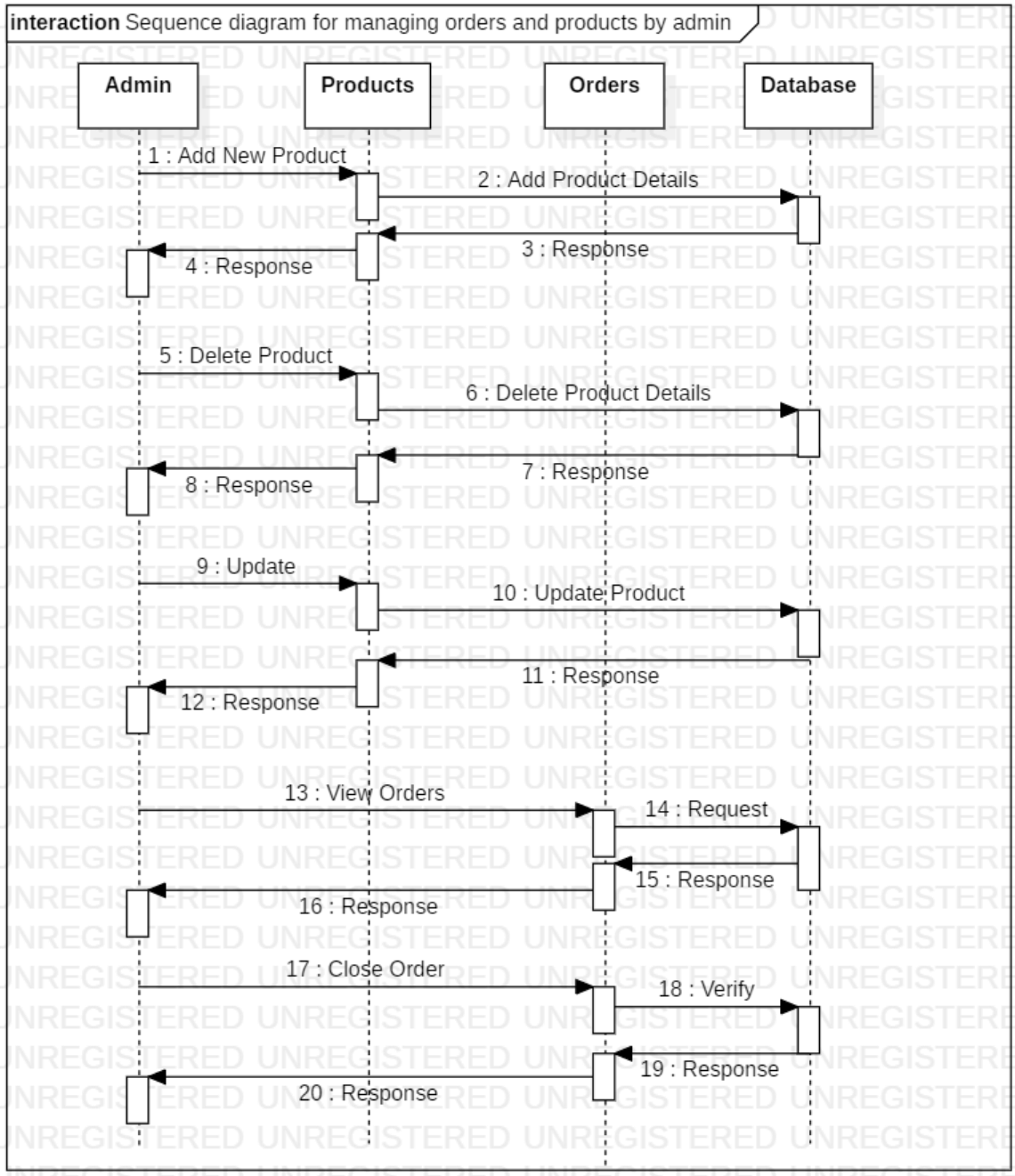


B. Sequence diagram for placing orders



C. Sequence diagram for managing orders and products by admin

Admin can add new products, delete existing products, update quantity, can view orders and close orders.



3.2.2.5) Flowchart diagram:-

- A flowchart is described as "cross-functional" when the chart is divided into different vertical or horizontal parts, to describe the control of different organizational units.
- A symbol appearing in a particular part is within the control of that organizational unit.
- A cross-functional flowchart allows the author to correctly locate the responsibility for performing an action or making a decision, and to show the responsibility of each organizational unit for different parts of a single process.

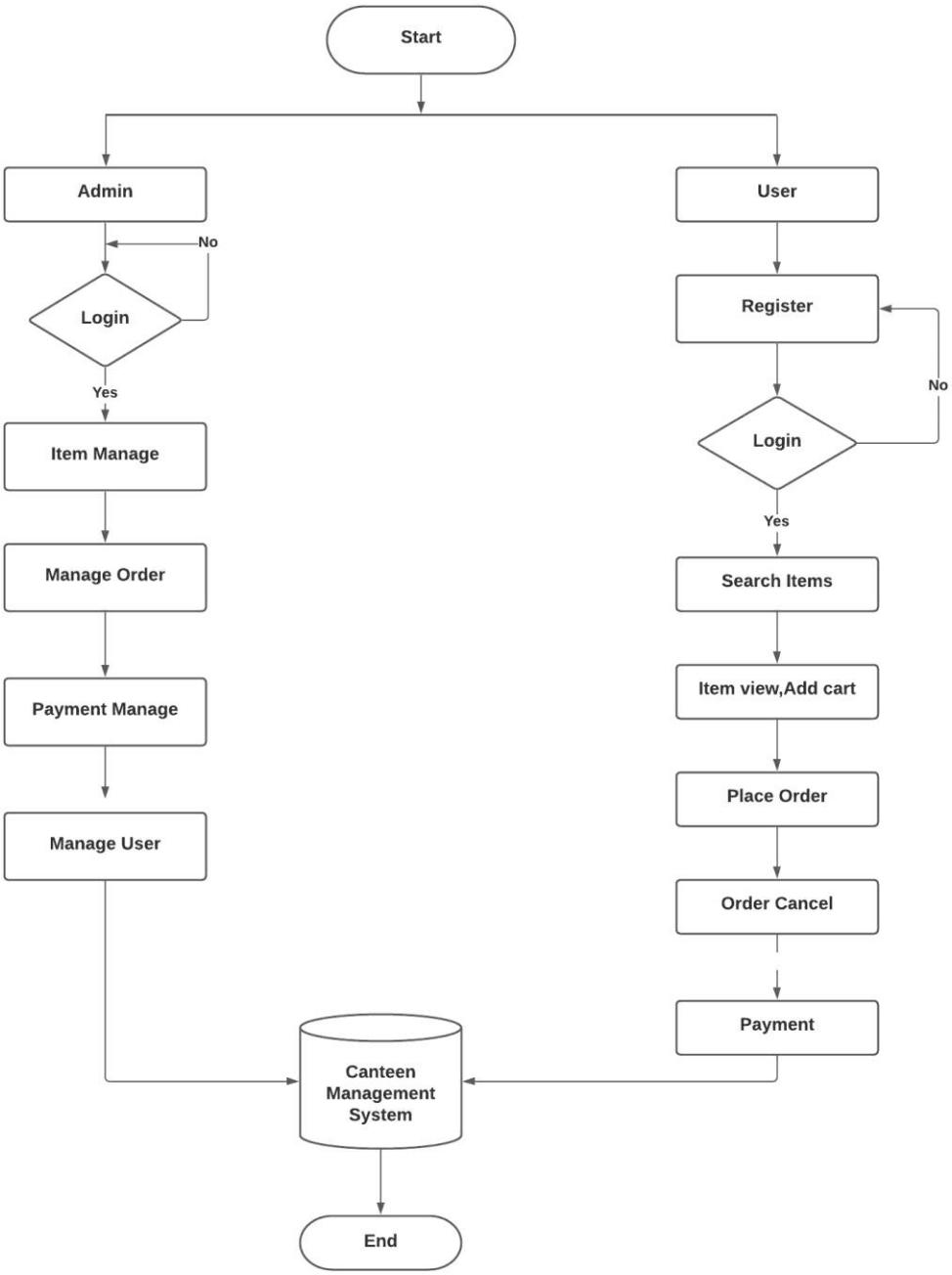


Figure: -Flow Chart diagram for Canteen Management System

3.2.3 Database

3.2.3.1) Database Table:-

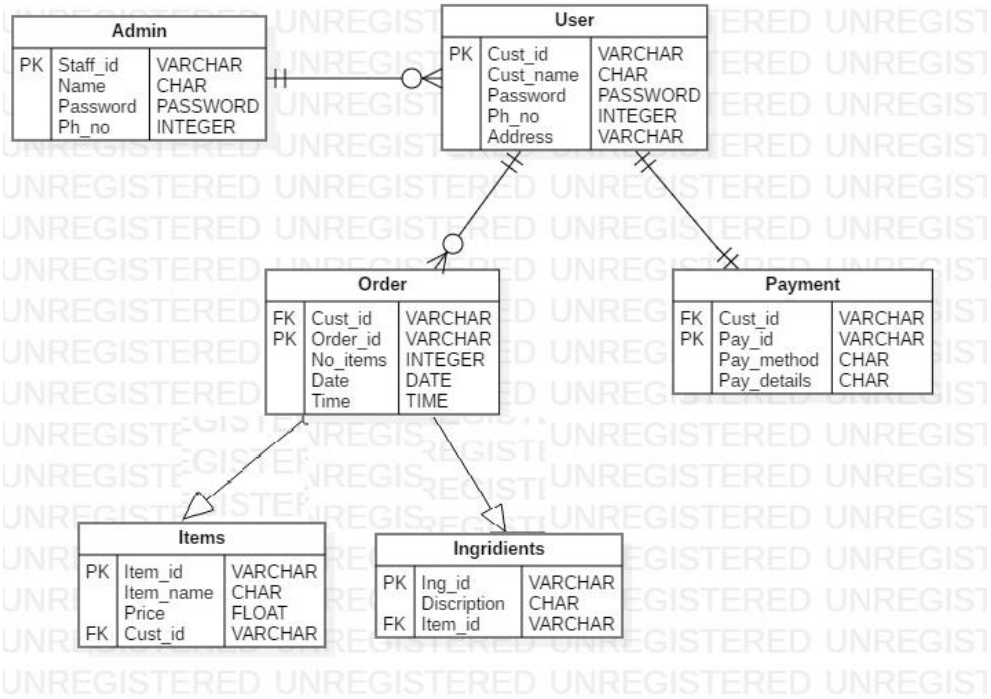
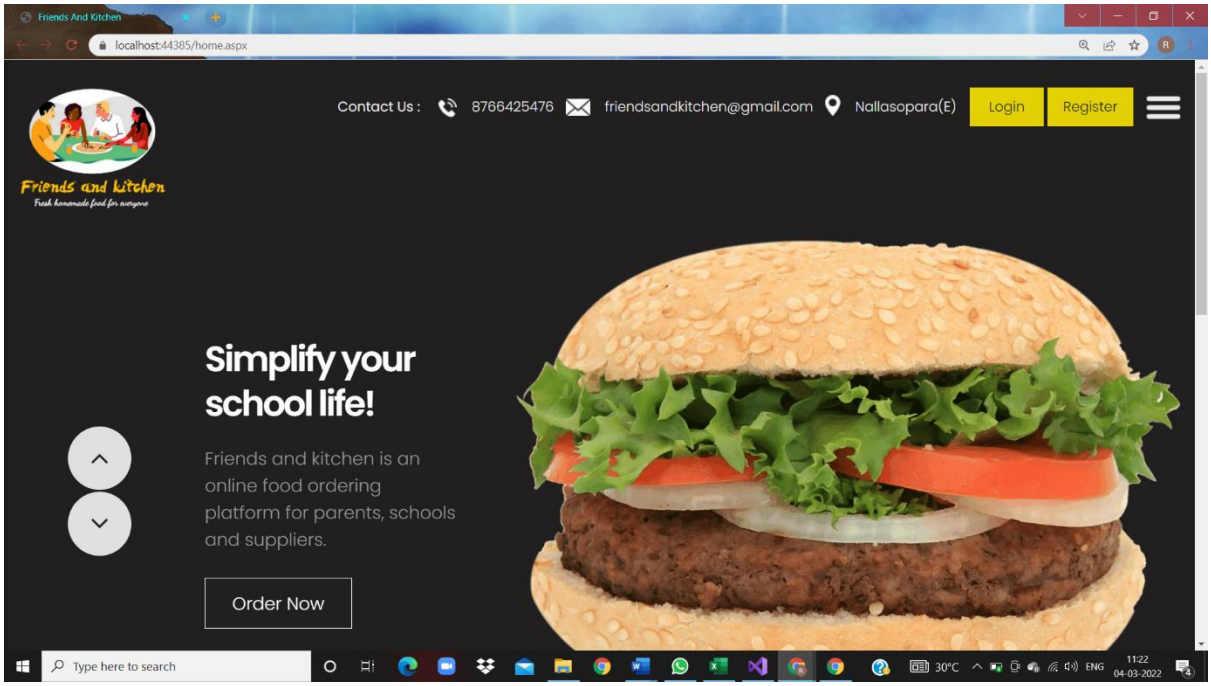


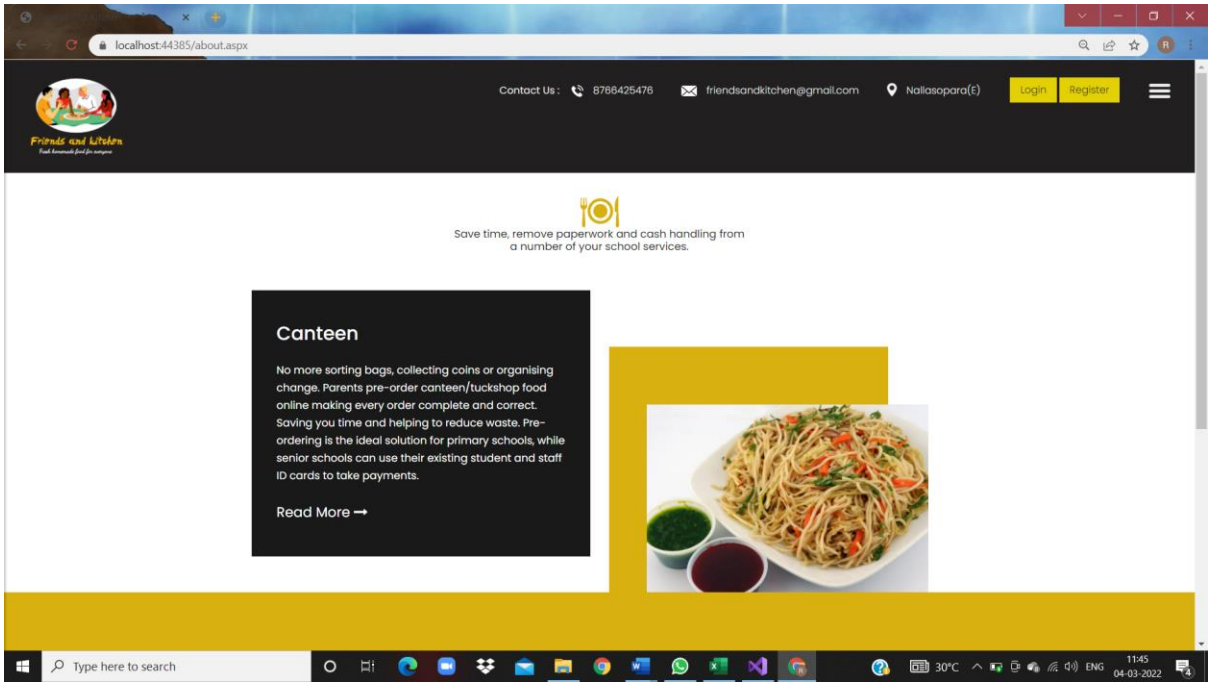
Figure: -Database Relationship diagram for Canteen Management System

3.2.4 I/O Screen Layout:-

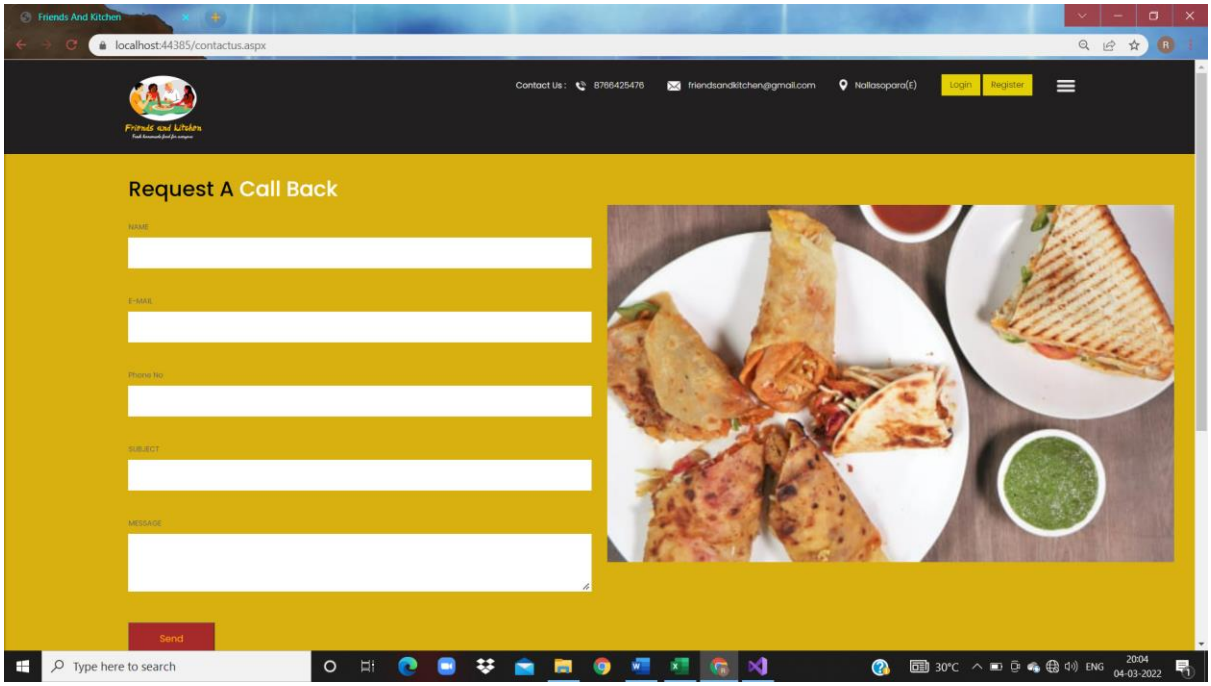
Home Page:-



About Us Page:-



Contact Us Page:-



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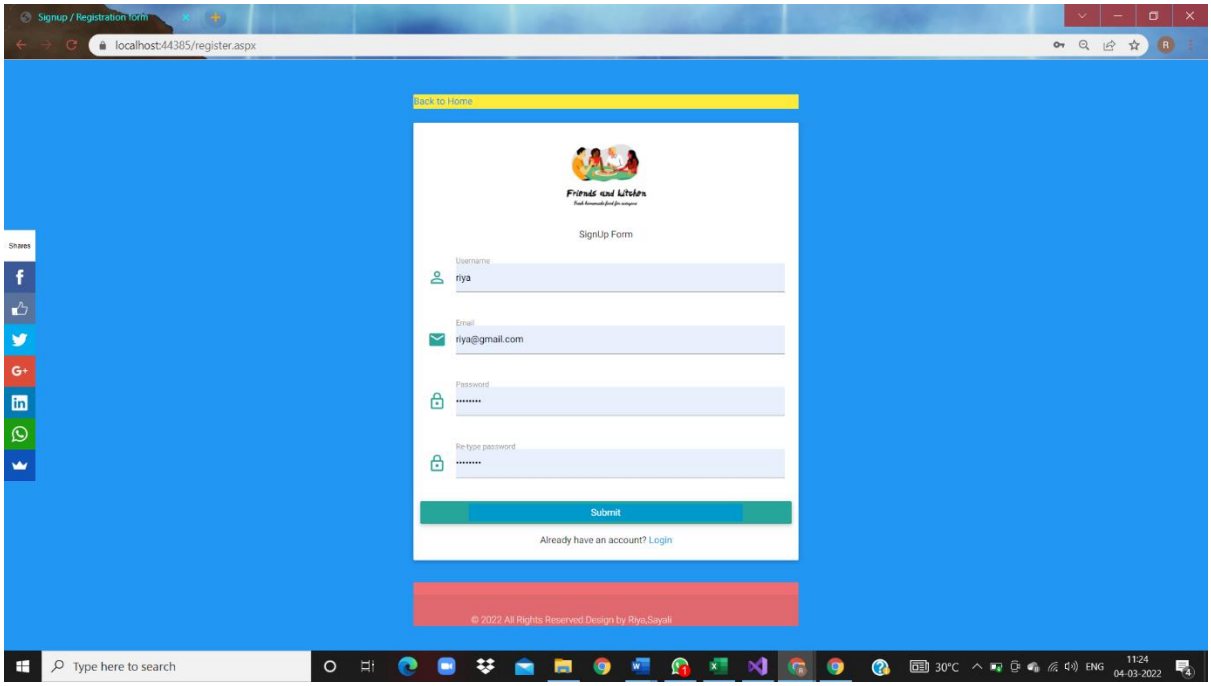
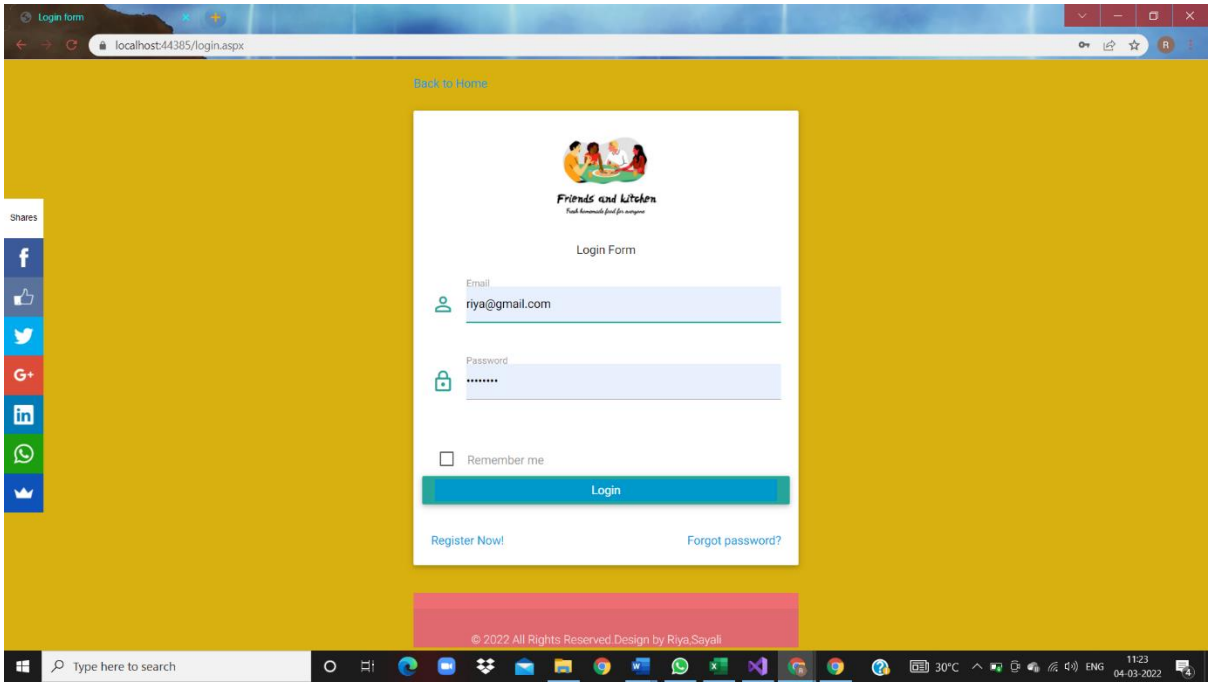
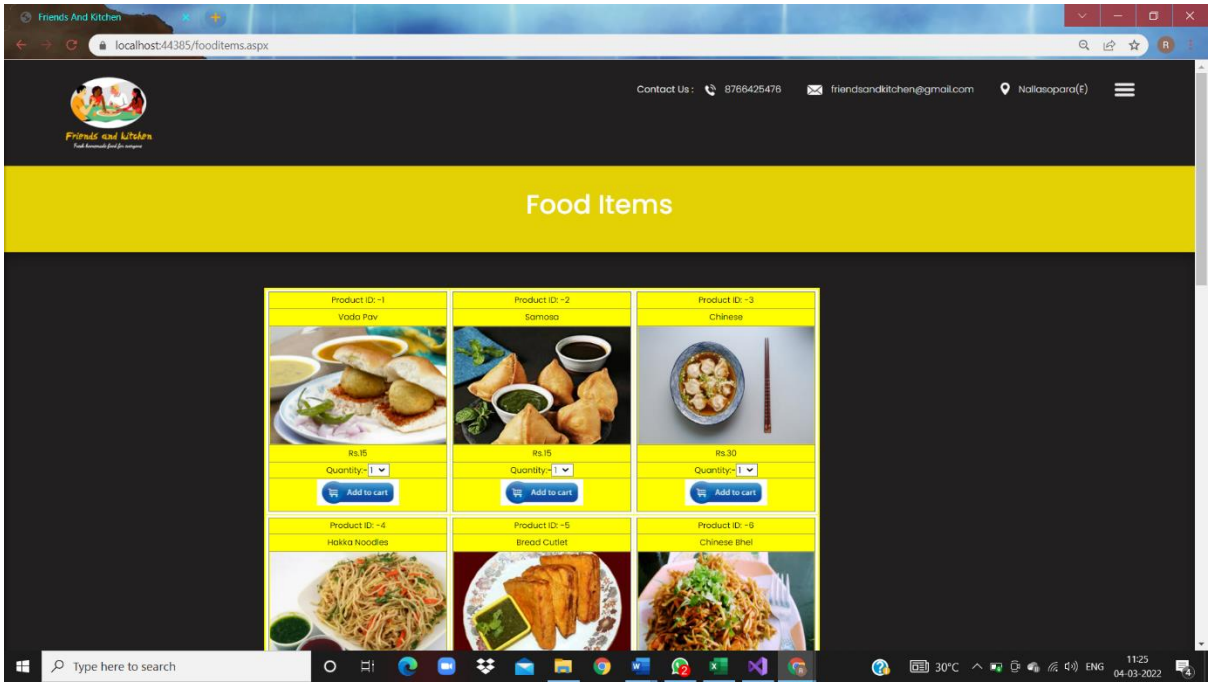


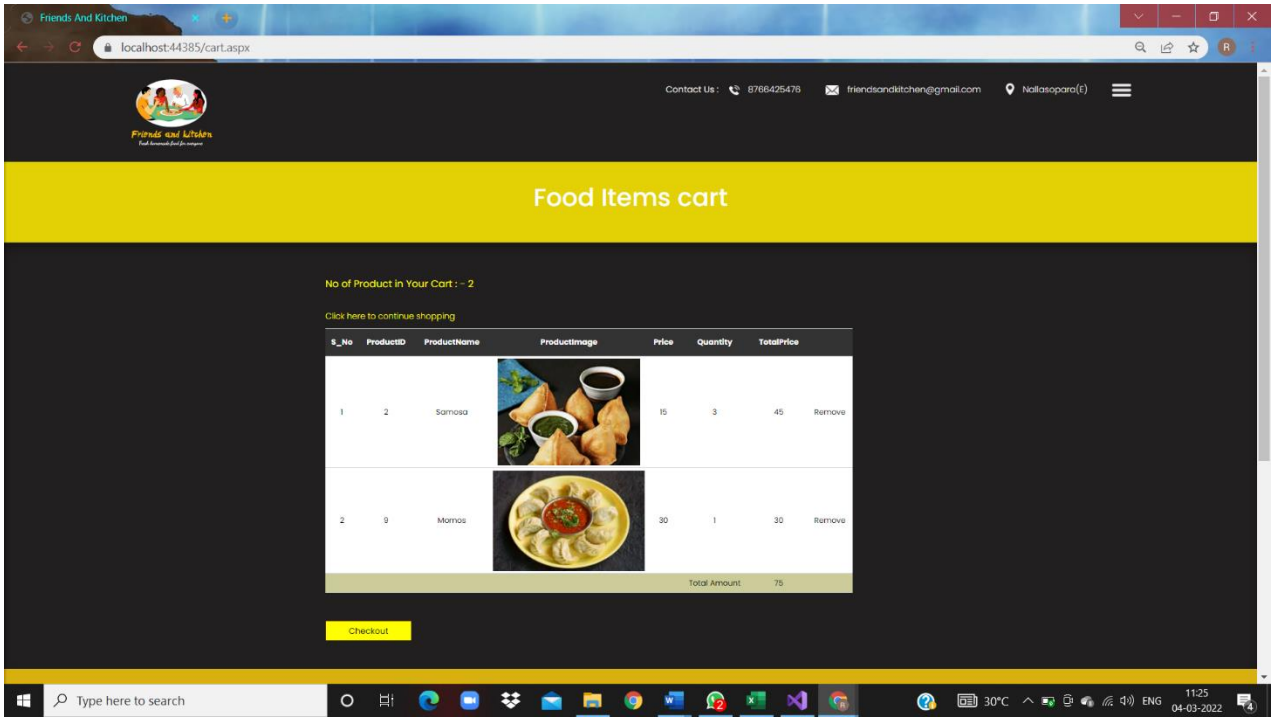
Login Page:-



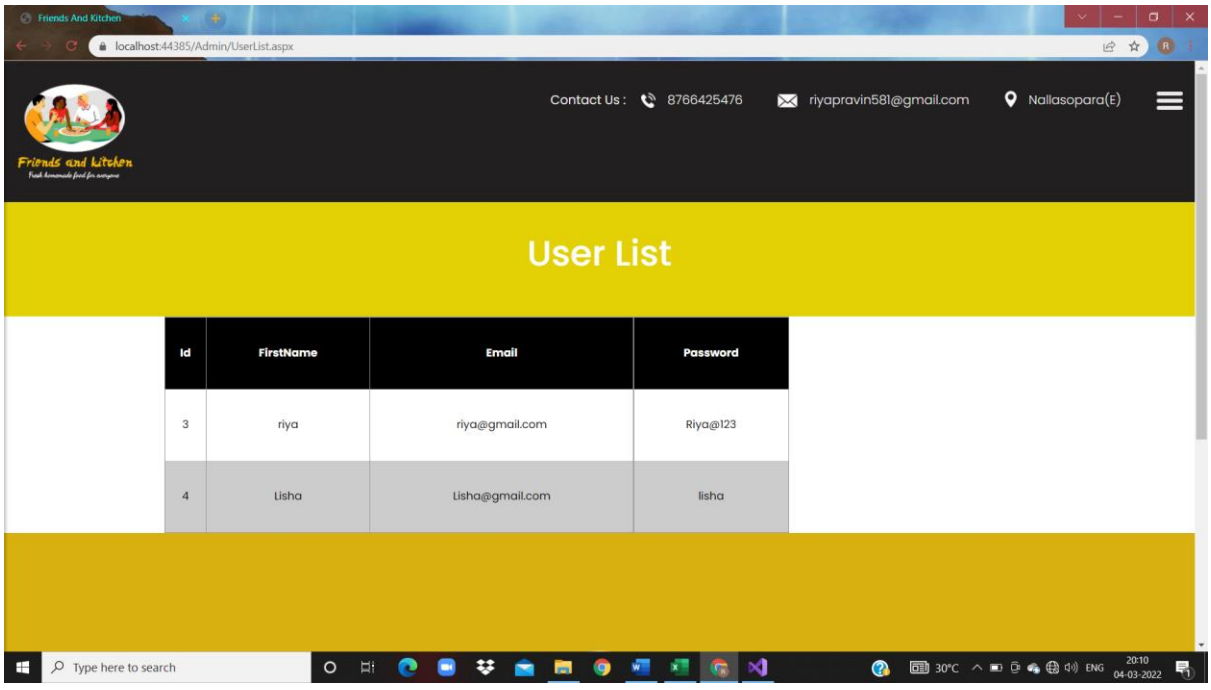
Food Item Page:-



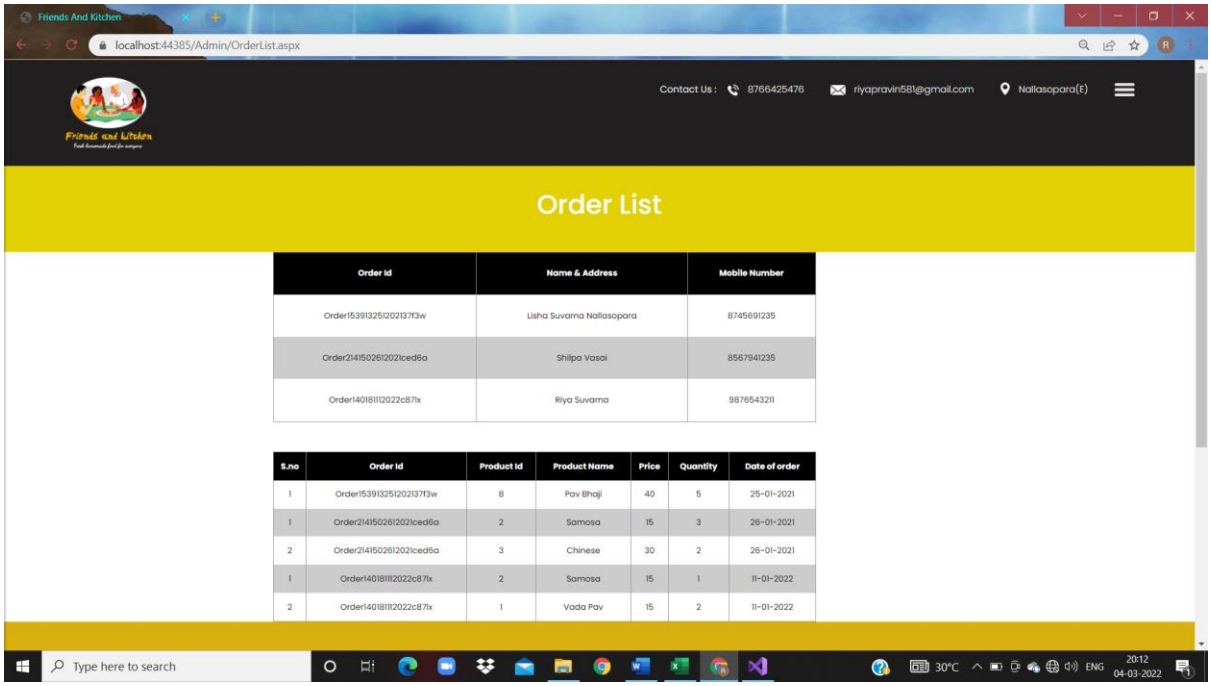
Add to Cart Page:-



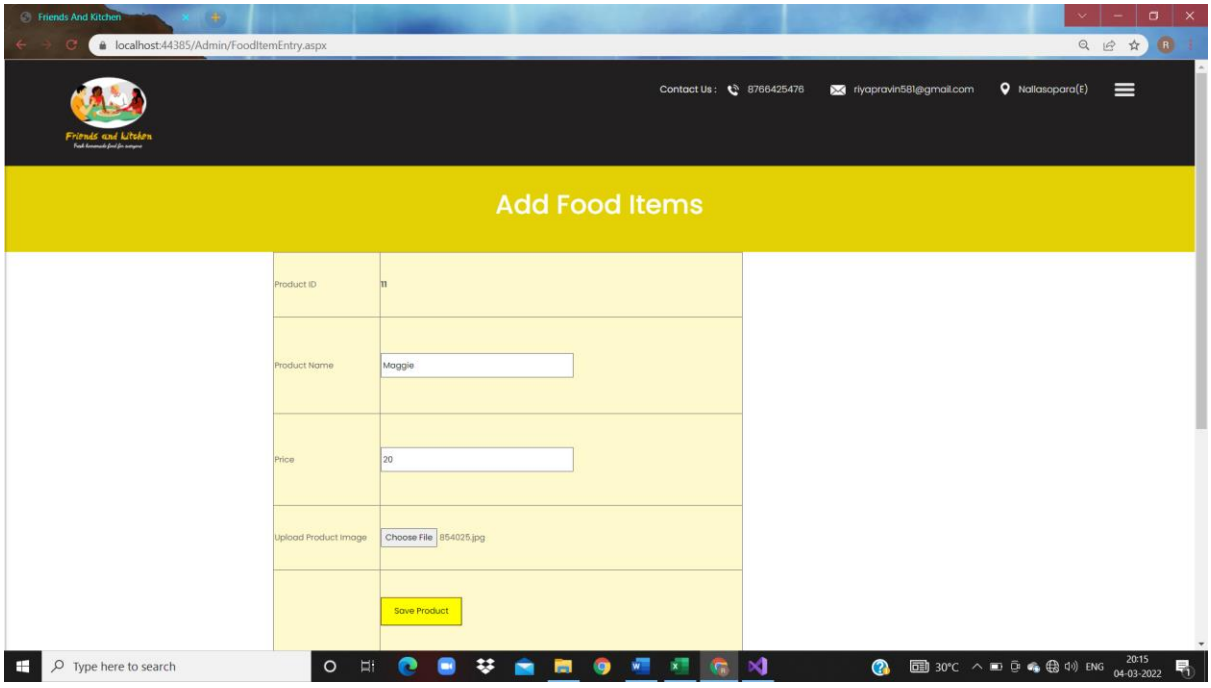
User List Page:-



Order Details Page:-



Add Food Item Page: -



Chapter 4: Testing

4.1 Methodologies used for testing

Testing is a process of executing a program with the indent of finding an error. Testing is a crucial element of software quality assurance and presents ultimate review of specification, design and coding.

System Testing is an important phase. Testing represents an interesting anomaly for the software. Thus a series of testing are performed for the proposed system before the system is ready for user acceptance testing.

A good test case is one that has a high probability of finding an as undiscovered error. A successful test is one that uncovers an as undiscovered error.

Testing Objectives:

1. Testing is a process of executing a program with the intent of finding an error
2. A good test case is one that has a probability of finding an as yet undiscovered error
3. A successful test is one that uncovers an undiscovered error

The primary objective for test case design is to derive a set of tests that has the highest livelihood for uncovering defects in software. To accomplish this objective two different categories of test case design techniques are used. They are

- White box testing.
- Black box testing.

White-box testing:

White box testing focus on the program control structure. Test cases are derived to ensure that all statements in the program have been executed at least once during testing and that all logical conditions have been executed.

Block-box testing:

Black box testing is designed to validate functional requirements without regard to the internal workings of a program. Black box testing mainly focuses on the information domain of the software, deriving test cases by partitioning input and output in a manner

that provides through test coverage. Incorrect and missing functions, interface errors, errors in data structures, error in functional logic are the errors falling in this category.

All these phases go through the process of software testing levels. There are mainly three testing levels which are as follows:

1. Unit Testing
2. Integration Testing
3. System Testing

1. Unit Testing:

- A Unit is a smallest testable portion of system or application which can be compiled, liked, loaded, and executed. I test each module separately.
- The aim is to test each part of the software by separating it. It checks that component are fulfilling functionalities or not. I tested all the modules which is working properly or not.
- In this web application there are mainly two modules i.e. **Admin module and User module.**
- Admin can login into system with the help of login id and password which is predefined.
- Admin can keep the records of users, check registrations which is been applied by the users

2. Integration Testing:

- Integration means combining. In this testing phase, different software modules are combined and tested as a group to make sure that integrated system is ready for system testing.
- Integrating testing checks the data flow from one module to other modules. I tested all the activities in the manner of integration testing.
- Details regarding the user and product buying are stored in the database.
- Users can add the product to cart in the systems website.

3. **System Testing:**

- System testing is performed on a complete, integrated system. It allows checking system's compliance as per the requirements.
- It tests the overall interaction of components. It involves load, performance, reliability and security.
- System testing is the final testing to verify that the system meets the specification. It evaluates both functional and non-functional need for the testing.
- In system testing I checked all validation are workable, properly or not, and ensuring that the all activities are correct or not.

4.2 Types of Testing

Test Cases:

Test cases are derived to ensure that all statements in the program have been executed at least once during testing and that all logical conditions have been executed.

Using White-Box testing methods, the software engineer can drive test cases that

- Guarantee that logical decisions on their true and false sides.
- Exercise all logical decisions on their true and false sides.
- Execute all loops at their boundaries and within their operational bounds.
- Exercise internal data structure to assure their validity.

The test case specification for system testing has to be submitted for review before system testing commences.

Test Case table: -

1) Test Report:

Test case ID	Test scenario	Operator action	Actual result	Remark
T01	Login	Correct Username/Email Id	Successfully Login	Test Successful.

		Correct Password	Successfully Login	
		Incorrect Username/email Id	Enter Proper Username/Email Id	
		Incorrect Password	Please fill Correct Password	
T02	Registration	Registration is done.	No error while login.	Test Successful.
		Registration is Successfully not done.	Errors is shown Please register it and tries again	
T03	Cart	Logged in User	Access the cart	Test Successful.
		Logged out the Successfully User	Cart access is denied	

2) Test Cases for User:

Test case ID	Test scenario	Operator action	Actual result	Remark
T01	User Registration	Enter Email ID and password	User account created.	Test Successful.
T02	User Login	User enters correct username and password.	User login successfully.	Test Successful.
T03	Add to Food Cart	User select items and click on add to cart button.	Items is added to the food cart.	Test Successful.
T04	Edit Product	User changes the quantity and delete item and select new item to food cart.	Foods and total cost of cart should be updated.	Test Successful.

Chapter 5: Conclusion

- This will allow the new user to buy any food item.
- Our project is only a humble venture to satisfy the needs to manage their project work.
- The system's entire operation is automated using this software.
- This system will save the time and money both by getting visible where the availability of internet.
- It will be very useful for those who do jobs and can't avail time for further studies.
- We included features and operations in detail.
- We designed user interface and security issues related to system
- Finally, the system is implemented and tested according to the test cases.

Chapter 6: Future Enhancement

- We can also add online payment options for the users.
- We can give more advance software for canteen management system including more facilities.
- Tracker system to keep track of the stocks.
- We will host the platform on online servers to make it accessible worldwide.
- Integrate multiple load balancers to distribute the loads of the system.
- Create the master and slave database structure to reduce the overload of the database queries.
- Implement the backup mechanism for taking backup of codebase and database on regular basis on different servers.

Chapter 7: References

14.1 Website: -

Sr. No	Website Link	Visited date
1	www.Neonprojects.com	19 January 2022
2	www.w3schools.com	21 January 2022
3	www.stackoverflow.com	30 January 2022
4	www.uml.com	5 February 2022
5	www.c-sharpcorner.com	18 February 2022
6	https://github.com	20 February 2022

14.2 Books:

- Complete reference of ASP.NET.
- ASP.NET black book programming.
- Complete reference book of SQL.
- HTML reference book.