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SADGURU GADAGE MAHARAJ COLLEGE,KARAD.

(AN EMPOWERED AUTONOMOUS COLLEGE)

A

Project Report

on

“Coffee Shop Management”

Submitted to

SHIVAJI UNIVERSITY,KOLHAPUR

THROUGH

DEPARTMENT OF BCS

SADGURU GADGE MAHARAJ COLLEGE, KARAD.

IN PARTIAL FULFILMENT OF THE DEGREE

B.Sc. Computer Science(Entire)Part–III Semester–V

Submitted By

Under The Guidance Of

Miss.PATIL A.M. (Msc.cs)

Year: 2025-2026

RAYATSHIKSHAN SANSTHA'S
Sadguru Gadage Maharaj College,Karad.



CERTIFICATE

This is certify that Mr. have satisfactorily completed the Field project entitled as "**Coffee Shop Management**" in the partial Fulfilment of B.Sc. Computer Science(Entire) Part-III Sem-V during the academic year 2025-26.

Place:Karad

Date:

Guide

Examiner

Head of Department

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We are also thankful to Mr. Patil A.B. Sir (HOD) and our Project Guide Miss. Patil A.M. Madam who encourage, advice and suggest us to successful complete our project. We are thankful to our librarian and their staff for providing us all library facilities time to time. We would like to thank to other teaching and nonteaching staff members of Computer Science Department.

At last, but not least, we are very much thankful to our parent and friends for co-operation to successfully complete this project in time.

- 1) Mr. SHRIRAJ SANTOSH PAWAR
- 2) Mr. SIDDHESH RAM PAWAR

Place:Karad

Date:



DECLARATION

We here by declare that, the field project entitled “Coffee Shop Management” has not for me dearlier the basic for the award of degree of this or any other University or examination body.Further we declared that we have not violated any of the provisions under copyright act.

Place:Karad

Date:

Name	Exam Seat No.	Sign
Mr. SHRIRAJ SANTOSH PAWAR	262	
Mr. SIDDHESH RAM PAWAR	263	

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INTRODUCTION TO SYSTEM

INTRODUCTION TO SYSTEM

The Coffee Shop Management System is a web-based application designed to simplify and digitalize the operations of a coffee shop. Traditionally, coffee shops manage their daily activities such as order taking, billing, inventory, and customer details manually, which often leads to errors, time delays, and inefficiency.

This system provides a centralized platform where customers can conveniently browse the menu, place orders, and make payments online. At the same time, the administrator can manage products, track sales, monitor stock, and generate reports in real-time.

The main goal of the system is to enhance customer experience while reducing the workload of the shop staff through automation. With features such as an interactive user interface, secure login for customers and admin, and a responsive design, the Coffee Shop Management System ensures smooth and efficient handling of all business processes.

This system also supports scalability, meaning that additional features such as loyalty programs, delivery options, and multi-branch integration can be added in the future. Ultimately, the project aims to create a reliable, user-friendly, and cost-effective solution for managing modern coffee shops.

EXISTING SYSTEM

Most coffee shops still depend on traditional manual processes for managing their daily operations. These include:

- **Customer Orders:** Orders are usually written down on paper slips. This may lead to mistakes in order-taking, missed items, or delays in service.
- **Stock Management:** Ingredients like coffee beans, milk, sugar, and other supplies are tracked manually. This often results in stock mismatches, shortages, or wastage.
- **Billing System:** Handwritten bills or basic calculators are used. Manual calculation increases the chances of errors in pricing, discounts, and tax.
- **Reporting:** Daily or monthly sales are calculated manually, which consumes time and may not always be accurate.
- **Customer Records:** Most shops do not maintain proper purchase histories, making it difficult to track loyal customers or offer personalized services.
- **Security Issues:** Paper records can be lost, damaged, or misused, leading to a lack of proper accountability.

Problems with the Existing System:

1. Time-consuming and inefficient.
2. High chances of errors in billing and stock management.
3. No proper system for generating reports for analysis and decision-making.
4. Difficult to maintain and track customer history and preferences.
5. Increased operational costs due to paper use and manual labor.

Thus, there is a strong need for a computerized **Coffee Shop Management System**.

NEED & SCOPE OF COMPUTER SYSTEM

Need of the System

The coffee shop business involves frequent customer interactions and daily transactions, where accuracy, speed, and efficiency are essential. A computerized system is needed for:

- **Accurate Billing:** Automatically calculates total amount, discounts, taxes, and generates digital bills instantly.
- **Customer Satisfaction:** Fast order processing and professional invoices improve customer experience and trust.
- **Stock Management:** Tracks real-time inventory of coffee beans, milk, sugar, snacks, and other supplies to avoid shortages or wastage.
- **Report Generation:** Generates reports for daily, weekly, or monthly sales, profits, and stock movement.
- **Secure Data Storage:** Protects customer and sales data using secure databases, reducing risks of loss or misuse.
- **Scalability:** Can expand to include features like online ordering, home delivery, or loyalty programs in the future.

Scope of the System

- Manage customer records and purchase history.
- Maintain product catalog including coffee varieties, beverages, and snacks.
- Generate accurate invoices and sales reports.
- Handle multiple payment options securely.
- Provide admin control for product, stock, and staff management.
- Offer a foundation for future expansion such as online coffee orders, delivery apps, or franchise

ORGANIZATION PROFILE

This project is developed under the **Department of Computer Science**, Sadguru Gadage Maharaj College, Karad, as part of the academic requirements of B.Sc. Computer Science (Entire) Part–III, Semester V. The project follows software engineering principles, ensuring systematic analysis, design, and implementation. It is developed using **HTML, Css, php, and MySQL database**.

PROPOSED SYSTEM

OBJECTIVES OF SYSTEM

The primary objective of the Coffee Shop Management System is to digitize and streamline core café operations—covering bookings, products, users, and administrative tasks—to improve efficiency, accuracy, and customer experience across web and admin interfaces.readme.md

Core objectives -

- Enable customers to browse products and place reservations through a responsive, user-friendly menu and booking flow.menu.php+1
- Centralize administrative tasks (inventory, user roles, sales reporting) in a secure dashboard for faster, data-driven decisions.readme.md
- Provide robust user authentication and role-based access control to protect data and tailor features to customers, staff, and admins.readme.md
- Capture customer engagement and feedback via About/testimonial content and contact forms to inform continuous improvements.about.php+1
- Maintain a maintainable, scalable stack (PHP, MySQL, HTML/CSS/Javascript) with clear setup for local deployment and future enhancements.readme.md

REQUIREMENT ENGINEERING

Requirement Engineering

Requirement Engineering is a systematic approach to gathering, analyzing, documenting, and validating requirements for a project. In the case of the **Coffee Shop Management System (CSMS)**, requirement engineering ensures that the final system meets both business and user expectations.

Functional Requirements

These define the services the system must provide:

1. User Management

- Admin login for shop owners.
- Staff login for order taking, billing, and stock updates.
- Secure authentication system.

2. Customer Management

- Registration of new customers.
- Storage of customer details (name, contact, order history, preferences).
- Search function to retrieve old customer records.

3. Product & Menu Management

- Add, update, or delete coffee items and snacks.
- Maintain details like product name, category (hot coffee, cold coffee, snacks), ingredients, and price.
- Track stock levels of raw materials (coffee beans, milk, sugar, etc.).

4. Order, Billing, and Sales Management

- Automated calculation of total bill ($\text{items} \times \text{price} + \text{taxes}$).
- Discount and coupon options.
- Invoice generation (print or digital).
- Automatic stock update after order completion.

5. Payment Handling

- Multiple payment methods: cash, card, UPI, wallet.
- Record of payment details in the database.

6. Reports and Analytics

- Daily/Monthly/Yearly sales reports.
- Stock and inventory reports.
- Profit and expense analysis.

7. Feedback Management

- Customers can give feedback on products and services.
- Admin can analyze feedback for quality and service improvement.

Non-Functional Requirements

- 1. Usability**
 - The system should be simple and intuitive, so even non-technical staff can use it.
 - 2. Performance**
 - The system should process billing and order updates within seconds.
 - 3. Scalability**
 - Must be able to handle thousands of orders, products, and customers without performance loss.
 - 4. Security**
 - Customer and financial data must be encrypted.
 - Role-based access control for admin and staff.
 - 5. Reliability**
 - The system should be available during business hours with minimum downtime.
 - 6. Portability**
 - Can be installed on Windows, Linux, or cloud-based servers.
 - 7. Maintainability**
 - Easy to update product prices, tax policies, and menu items.
-

REQUIREMENT GATHERING

Requirement Gathering

Requirement gathering is the process of collecting information from stakeholders to understand what the Coffee Shop Management System (CSMS) should achieve. It ensures that the final system meets both business needs and user expectations.

For this project, requirement gathering was carried out using the following techniques:

1. **Interviews** – Discussions with shop owners and managers helped identify key problems such as billing delays, stock mismanagement, and the need for professional invoices.
2. **Observation** – Daily coffee shop activities were observed to understand how staff interact with customers, take orders, process payments, and track stock manually.
3. **Questionnaires** – Employees provided feedback on the challenges of the manual system and suggested features like faster billing, digital receipts, and real-time inventory updates.
4. **Document Review** – Old order slips, bills, and sales records were studied to analyze existing workflows and data handling.
5. **Prototyping** – Simple screen mockups (menu screens, billing pages) were shown to stakeholders to confirm expectations and refine requirements.

Findings

- Shop owners want fast and accurate billing with automatic tax and discount calculations.
- Staff require a simple, user-friendly interface for daily operations.
- Customers expect professional invoices and reduced waiting times.
- Owners need real-time stock management and sales reports for better decision-making.
- Security of financial transactions and customer data is a major concern.

SOFTWARE REQUIREMENT SPECIFICATION

Software Requirement Specification (SRS)

The Software Requirement Specification (SRS) defines what the system will do. It acts as a contract between developers and stakeholders.

Functional Specification

1. Login Module

- Secure login with username and password.
- Role-based access for admin and staff.

2. Customer Module

- Register new customers.
- Store customer details (name, contact, preferences, order history).
- Search and retrieve old customer records.

3. Product & Menu Module

- Add new coffee and snack items with details (category, ingredients, price, stock).
- Update stock levels and prices.
- Remove discontinued products from the menu.

4. Billing Module

- Select customer and items ordered.
- Auto-calculate price, taxes, and discounts.
- Generate invoice with unique invoice number (print or digital).

5. Payment Module

- Support multiple payment methods: Cash, UPI, Card, Wallet.
- Store payment transaction details securely.

6. Reports Module

- Generate daily sales report.
- Generate monthly sales and expense report.
- Generate yearly sales and profit analysis.
- Stock and inventory availability report.

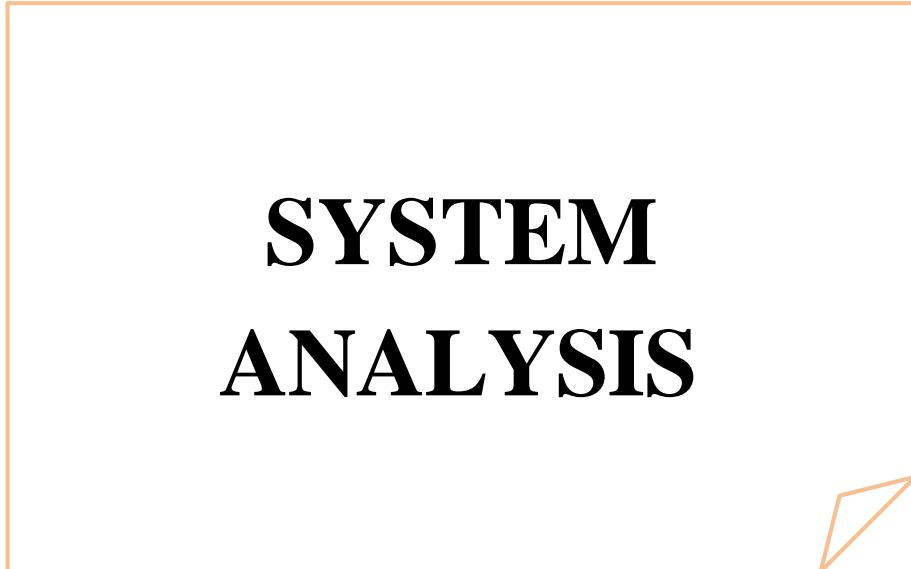
7. Feedback Module

- Customers provide service or product feedback.
- Admin reviews and analyzes feedback for improvement.

Non-Functional Specification

- **Reliability:** System uptime of 99% to ensure smooth business operations.
- **Security:** Database encryption, secure login, and role-based access control.
- **Usability:** User-friendly interface with simple menus, dropdowns, and forms.
- **Efficiency:** Generate invoices in less than 3 seconds.
- **Scalability:** Should support 10,000+ customers and 50,000+ transactions without performance loss.
- **Portability:** System should run on both local desktop and cloud environments.
- **Maintainability:** Easy to update menu prices, discount policies, and tax rates.

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SYSTEM ANALYSIS

SYSTEM ANALYSIS

System Analysis

System analysis is the process of studying the existing manual coffee shop operations, identifying their shortcomings, and defining requirements for an improved computerized system. In the current setup, activities such as order-taking, billing, stock maintenance, and customer management are carried out manually using paper slips and handwritten invoices. This often leads to errors in calculations, delays in service, difficulties in retrieving past records, and limited reporting capabilities.

The proposed **Coffee Shop Management System (CSMS)** aims to overcome these problems by automating day-to-day operations. During the analysis, problem areas were identified such as inaccurate billing, poor inventory tracking, lack of professional invoices, and absence of reliable reports. A feasibility study was conducted to ensure the system is technically possible, economically affordable, operationally practical, and socially acceptable.

To gather requirements, several fact-finding techniques were used, including interviews with shop owners, observation of staff workflows, review of old order slips and records, and simple prototypes to validate needs. The findings confirmed that shop owners require a fast, error-free, and user-friendly solution that can generate invoices, update stock automatically, and provide useful reports for decision-making.

Finally, system diagrams such as **Data Flow Diagrams (DFD)** and **Entity Relationship Diagrams (ERD)** were prepared to visualize how data moves through the system and how different entities (Customers, Products, Orders, Payments, Staff) are related. These diagrams form the blueprint for system design.

Conclusion:

System analysis demonstrates that the current manual process is inefficient and unreliable, while the proposed computerized Coffee Shop Management System will provide accuracy, efficiency, security, and customer satisfaction.

FACT FINDING TECHNIQUES

The coffee shop business is highly customer-driven because it deals with frequent transactions, perishable ingredients, and high service expectations. Every mistake in billing, stock management, or order processing can lead to financial losses and reduced customer satisfaction. In most traditional coffee shops, the operations are handled manually using paper slips, notebooks, and handwritten invoices. While this approach may work in very small setups, it becomes inefficient and error-prone in modern times where quick service and accuracy are essential.

Problems in the Existing System:

1. Manual Record-Keeping:

- Customer details and orders are written in notebooks, making it difficult to retrieve past information.
- Data duplication, misplacement, and loss are common.

2. Stock Management Issues:

- Ingredients like coffee beans, milk, sugar, and snacks are manually tracked.
- Stock mismatches occur due to human error, wastage, or theft.
- No alerts are available for low stock or expired items.

3. Billing Errors:

- Bills are calculated manually, including prices, taxes, and discounts.
- Manual calculations lead to frequent miscalculations, which may cause customer disputes.

4. Lack of Reports:

- Shop owners cannot quickly generate daily, monthly, or yearly sales reports.
- Business decisions are based on assumptions rather than accurate data.

5. Security Concerns:

- Paper records are vulnerable to loss, damage, or unauthorized access.
- Sensitive financial and customer data is not secure.

6. Customer Dissatisfaction:

- Long waiting times due to slow billing and order processing.
- Lack of professional invoices reduces customer trust.

Conclusion of Problem:

The manual system fails to meet modern demands of efficiency, accuracy, security, and customer service. A computerized **Coffee Shop Management System (CSMS)** is required to automate billing, stock control, customer management, and reporting in a secure and professional manner.

FEASIBILITY STUDY

Feasibility Study

Before developing the **Coffee Shop Management System (CSMS)**, it is essential to perform a feasibility study to determine whether the project can be successfully implemented with available resources, within the budget, and in a reasonable time frame.

1. Technical Feasibility

The system can be developed using:

- **Front-End:** HTML, CSS, JavaScript, Bootstrap for user interface.
- **Back-End:** PHP for business logic.
- **Database:** MySQL for data storage.
- **Server:** Apache server (XAMPP/LAMP).
- **IDE:** VS Code

All these technologies are open-source and widely available. Developers and students already have the necessary knowledge to use them. Hence, the project is **technically feasible**.

2. Economic Feasibility

- **Development Costs:** Since open-source tools are used, software costs are negligible.
- **Hardware Costs:** Requires only a standard desktop/laptop (Core i3/i5 processor, 4GB RAM, 250GB HDD).
- **Operational Costs:** Reduced expenses compared to manual operations (no paper receipts, registers, or manual accounts).
- **Return on Investment (ROI):** Saves time, reduces errors, and improves service speed—leading to more sales and higher customer satisfaction.

Therefore, the project is **economically feasible**.

3. Operational Feasibility

The system is designed to be **user-friendly** with simple forms, dropdown menus, and easy navigation. Staff can be trained in a short time to use the system effectively. Daily operations such as billing, stock updates, and reporting are simplified and faster compared to the manual system. Thus, the system is **operationally feasible**.

4. Schedule Feasibility

The project can be completed within **4–6 months** following the SDLC phases:

- Requirement Analysis (2 weeks)
- System Design (3 weeks)
- Coding & Implementation (6–8 weeks)
- Testing & Debugging (2 weeks)
- Documentation & Final Report (2 weeks)

Hence, the project is **schedule feasible** within an academic semester timeline.

5. Social Feasibility

The system improves customer satisfaction by:

- Reducing waiting times for billing and order processing.
- Providing professional, computerized invoices.
- Ensuring accurate pricing and faster service.

This builds **customer trust and loyalty**, creating a positive social impact.

6. Legal Feasibility

The system complies with legal requirements such as:

- Generating GST-compliant invoices.
- Protecting customer data in line with IT security and privacy regulations.

Thus, it is **legally feasible**.

7. Environmental Feasibility

Since the system replaces paper-based registers and manual receipts, it reduces paper usage and supports **eco-friendly business practices**.

Conclusion of Feasibility Study

The **Coffee Shop Management System (CSMS)** is technically, economically, operationally, socially, legally, and environmentally feasible. With minimal costs and readily available tools, the system can be implemented within the given timeframe and deliver significant benefits to both shopkeepers and customers.

SYSTEM DIAGRAM

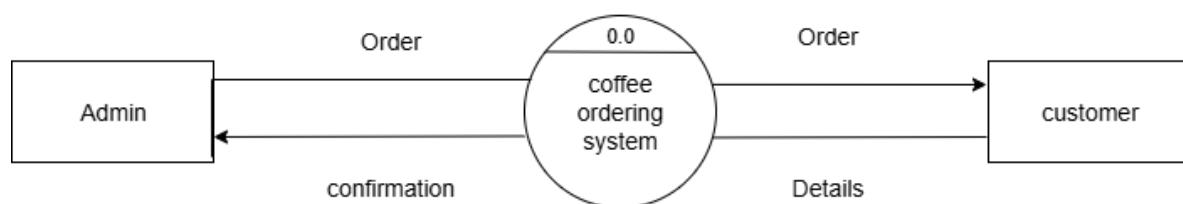
SYSTEM DIAGRAM

Data Flow Diagram(DFD)

Dataflow Diagram

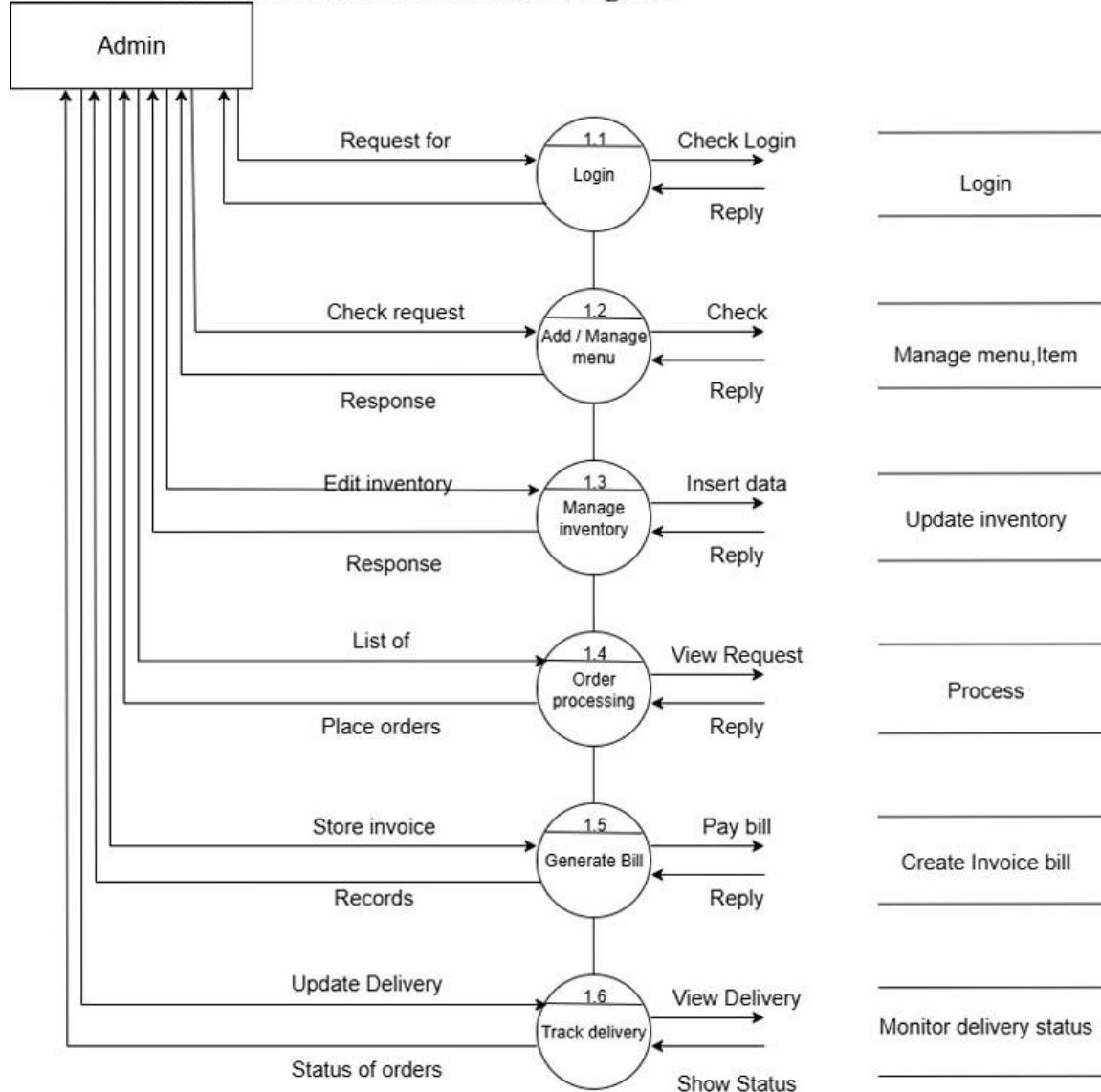
Zero level(Context Level Diagram):

DFD Zero level

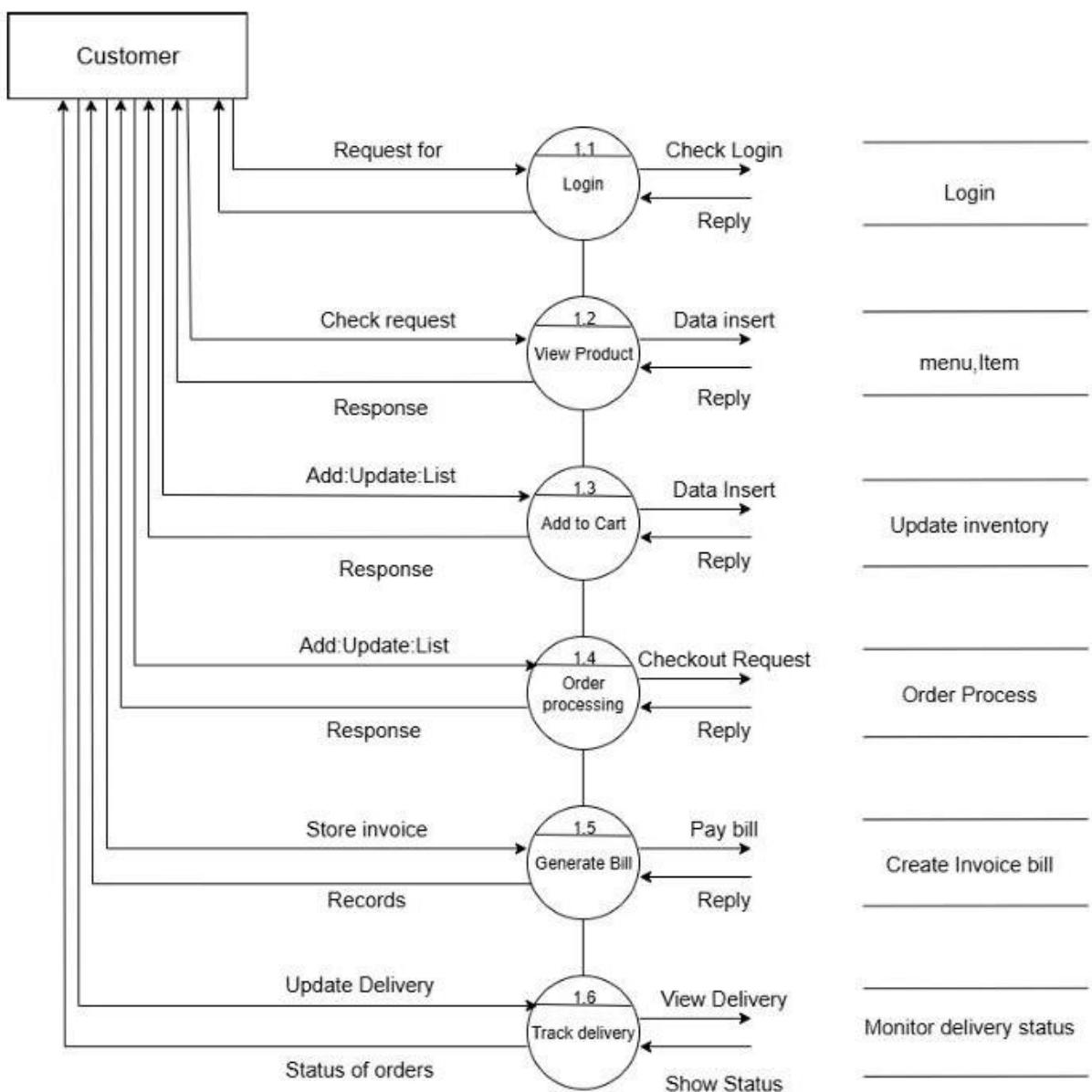


FirstLevelDiagram:

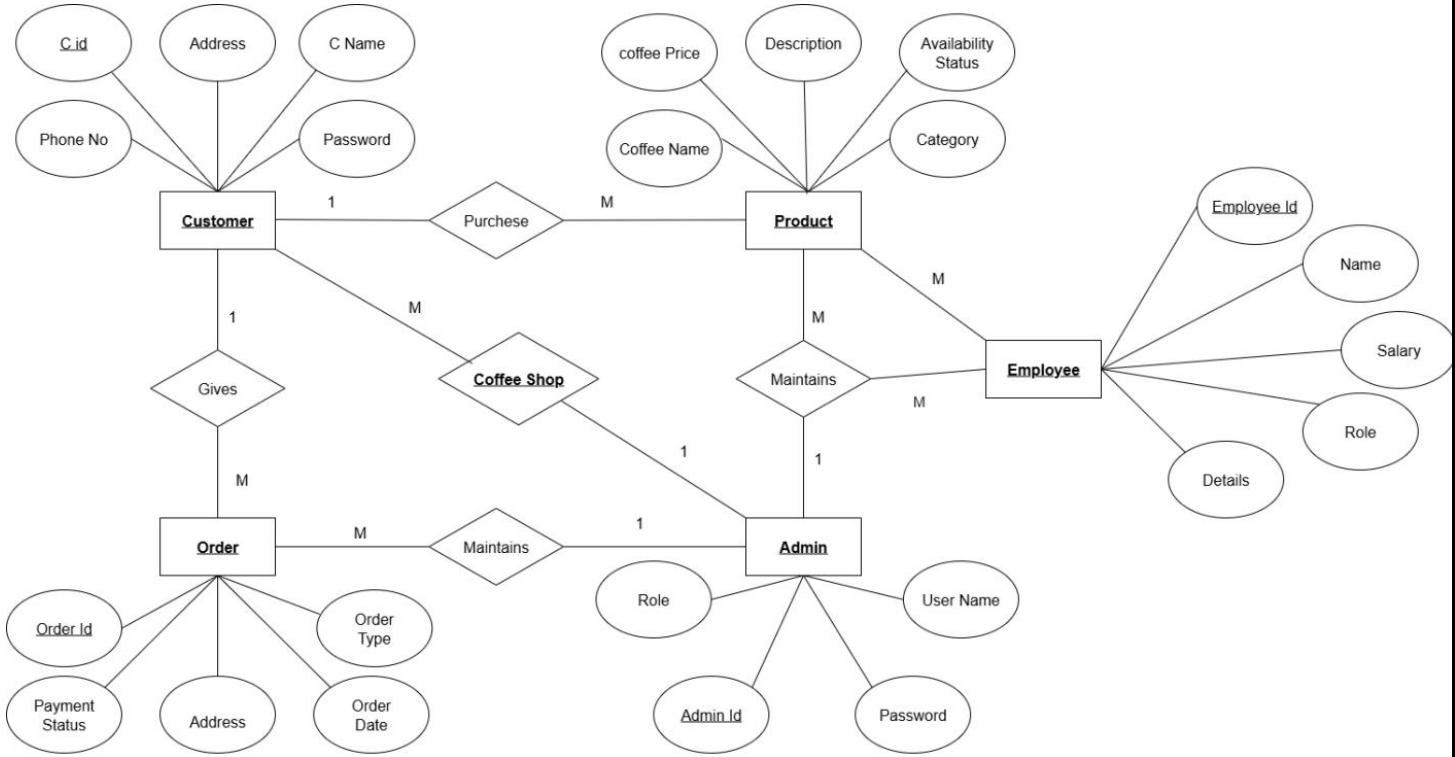
❖ 1-Level-Admin Side Data Flow Diagram



❖ 1-Level-Customer Side Data Flow Diagram



Entity Relation Diagram(ERD):



E-R Diagram And Data Base of Coffee Shop

DATABASE DESIGN

Table Name:- Admins

Description:-It Store Information Of Admin.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id 📃	int(2)			No	None		AUTO_INCREMENT	Change Drop More
2	admin_name	varchar(100)	utf8mb4_general_ci		No	None			Change Drop More
3	email	varchar(100)	utf8mb4_general_ci		No	None			Change Drop More
4	password	varchar(200)	utf8mb4_general_ci		No	None			Change Drop More
5	created_at	timestamp			No	current_timestamp()			Change Drop More

Table Name:- Bookings

Description:-It Store Information Of Bookings

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id 📃	int(3)			No	None		AUTO_INCREMENT	Change Drop More
2	first_name	varchar(100)	utf8mb4_general_ci		No	None			Change Drop More
3	last_name	varchar(100)	utf8mb4_general_ci		No	None			Change Drop More
4	date	varchar(11)	utf8mb4_general_ci		No	None			Change Drop More
5	time	varchar(10)	utf8mb4_general_ci		No	None			Change Drop More
6	phone	varchar(10)	utf8mb4_general_ci		No	None			Change Drop More
7	message	text	utf8mb4_general_ci		No	None			Change Drop More
8	status	varchar(50)	utf8mb4_general_ci		No	pending			Change Drop More
9	user_id	int(3)			No	None			Change Drop More
10	created_at	timestamp			No	current_timestamp()			Change Drop More

Table Name:- Carts

Description:-It Stores information of Carts

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id 📃	int(3)			No	None		AUTO_INCREMENT	Change Drop More
2	name	varchar(100)	utf8mb4_general_ci		No	None			Change Drop More
3	image	varchar(100)	utf8mb4_general_ci		No	None			Change Drop More
4	price	varchar(10)	utf8mb4_general_ci		No	None			Change Drop More
5	description	text	utf8mb4_general_ci		No	None			Change Drop More
6	product_id	int(10)			No	None			Change Drop More
7	size	varchar(30)	utf8mb4_general_ci		No	None			Change Drop More
8	quantity	int(10)			No	None			Change Drop More
9	user_id	int(3)			No	None			Change Drop More
10	created_at	timestamp			No	current_timestamp()			Change Drop More

Table Name:- Products

Description:-It Stores Products In shop.

				id	name	image	description	price	type	created_at
<input type="checkbox"/>				1	Coffee Capuccino	menu-1.jpg	Far far away, behind the word mountains, far from ...	4.90	coffee	2024-02-28 11:49:36
<input type="checkbox"/>				2	Creamy Latte Coffee	menu-2.jpg	Far far away, behind the word mountains, far from ...	5.10	coffee	2024-02-28 11:49:36
<input type="checkbox"/>				3	Cold Coffee	menu-3.jpg	Far far away, behind the word mountains, far from ...	3.65	coffee	2024-02-28 12:43:50
<input type="checkbox"/>				4	Lemonde Juice	drink-1.jpg	Far far away, behind the word mountains, far from ...	2.90	drink	2024-04-24 22:23:22
<input type="checkbox"/>				5	Pineapple Juice	drink-2.jpg	Far far away, behind the word mountains, far from ...	3.50	drink	2024-04-24 22:23:22
<input type="checkbox"/>				6	Hot Cake Honey	dessert-1.jpg	Far far away, behind the word mountains, far from ...	3.85	dessert	2024-04-24 22:29:23
<input type="checkbox"/>				7	Cherry Butter Cake	dessert-2.jpg	Far far away, behind the word mountains, far from ...	4.00	dessert	2024-04-24 22:29:23
<input type="checkbox"/>				8	Banana Cheery Cake	dessert-5.jpg	A small river named Duden flows by their place and...	4.00	dessert	2024-04-24 22:31:31
<input type="checkbox"/>				14	Soda Drinks	drink-3.jpg	Far far away, behind the word mountains, far from ...	5.90	drink	2024-05-28 13:10:44
<input type="checkbox"/>				15	Roasted Chicken	dish-4.jpg	Far far away, behind the word mountains, far from ...	10	main dish	2024-05-28 13:13:52
<input type="checkbox"/>				16	Cornish - Mackere	dish-1.jpg	Far far away, behind the word mountains, far from ...	12	main dish	2024-05-28 13:26:21
<input type="checkbox"/>				17	Roasted Steak	dish-2.jpg	Far far away, behind the word mountains, far from ...	12	main dish	2024-05-28 13:29:00
<input type="checkbox"/>				18	Cheese Burger	burger-1.jpg	Far far away, behind the word mountains, far from ...	5	starter	2024-05-28 13:31:57
<input type="checkbox"/>				19	Salad Burger	burger-3.jpg	Far far away, behind the word mountains, far from ...	6.80	starter	2024-05-28 13:32:50
<input type="checkbox"/>				20	Roasted Sea Food	dish-5.jpg	Far far away, behind the word mountains, far from ...	18	main dish	2024-05-28 13:34:41

Table Name:- Orders

Description:- It stores Orders

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id 	int(11)			No	None		AUTO_INCREMENT	 Change  Drop  More
2	first_name	varchar(100)	utf8mb4_general_ci		No	None			 Change  Drop  More
3	last_name	varchar(100)	utf8mb4_general_ci		No	None			 Change  Drop  More
4	country	varchar(100)	utf8mb4_general_ci		No	None			 Change  Drop  More
5	street_address	varchar(200)	utf8mb4_general_ci		No	None			 Change  Drop  More
6	town	varchar(100)	utf8mb4_general_ci		No	None			 Change  Drop  More
7	zip_code	varchar(10)	utf8mb4_general_ci		No	None			 Change  Drop  More
8	phone	varchar(11)	utf8mb4_general_ci		No	None			 Change  Drop  More
9	email	varchar(100)	utf8mb4_general_ci		No	None			 Change  Drop  More
10	user_id	int(3)			No	None			 Change  Drop  More
11	status	varchar(20)	utf8mb4_general_ci		No	None			 Change  Drop  More
12	total_price	int(10)			No	None			 Change  Drop  More
13	created_at	timestamp			No	current timestamp()			 Change  Drop  More

Table Name:- Users

Description:- It stores Customers

			id	username	email	password	created_at
<input type="checkbox"/>	 Edit	 Copy	 Delete	1 admin	admin@admin.com	admin@admin	2024-07-03 11:15:14
<input type="checkbox"/>	 Edit	 Copy	 Delete	2 shri	pawarshriraj007@gmail.com	1234	2025-10-01 15:22:26
<input type="checkbox"/>	 Edit	 Copy	 Delete	3 shri	pawarshriraj007@gmail.com	1234	2025-10-01 15:22:38
<input type="checkbox"/>	 Edit	 Copy	 Delete	4 shri	add@123	123	2025-10-01 15:29:33
<input type="checkbox"/>	 Edit	 Copy	 Delete	5 shrishri	shri@1234	12345	2025-10-01 16:43:45
<input type="checkbox"/>	 Edit	 Copy	 Delete	6 shrishri	shri@1234	12345	2025-10-01 16:43:53
<input type="checkbox"/>	 Edit	 Copy	 Delete	7 shri	shri	1234	2025-10-02 20:37:28
<input type="checkbox"/>	 Edit	 Copy	 Delete	8 shri	shri	1234	2025-10-02 20:37:39

INPUT/OUTPUT DESIGN

✓ Login :-

N.S Coffee Delicious Taste

login

Login

pawarshiraj007@gmail.com

.....

Login



HOME MENU SERVICES ABOUT CONTACT LOGIN REGISTER

LOGIN

Email

admin@123

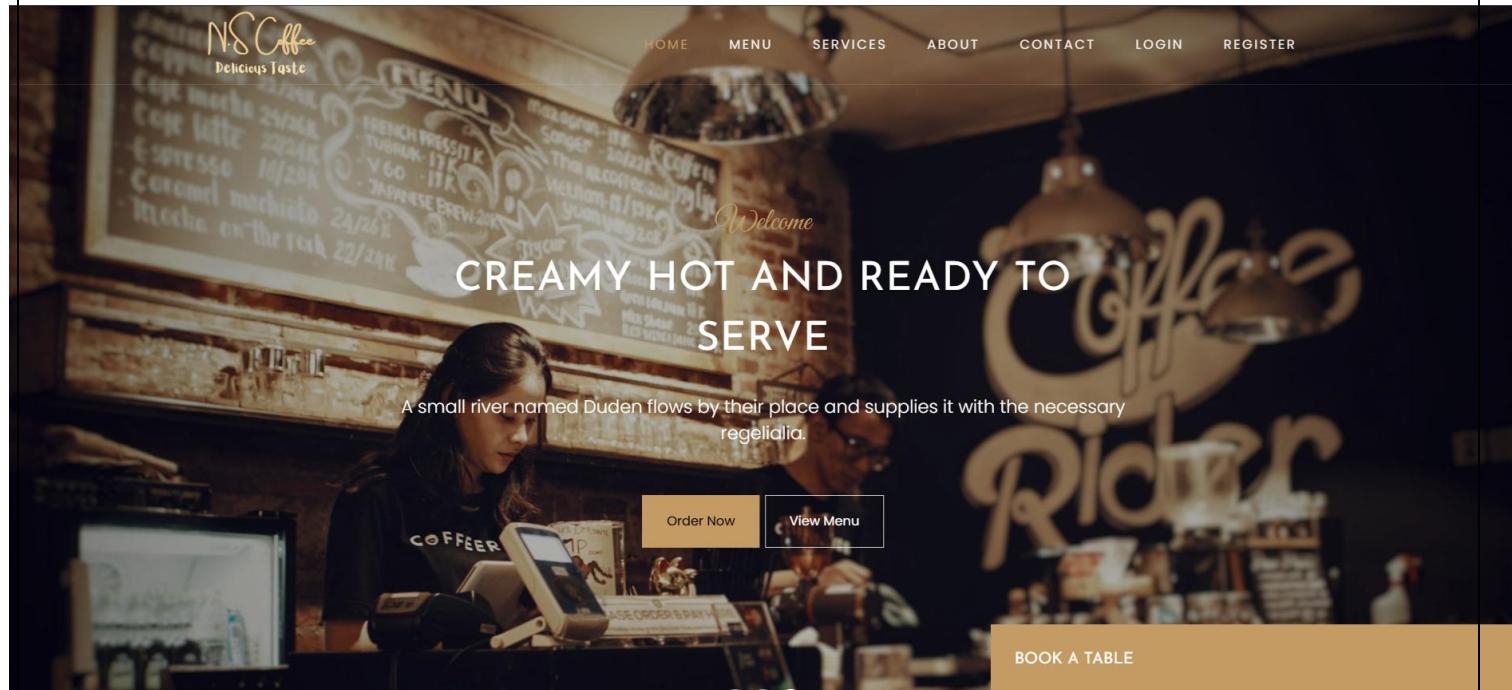
Password

.....

[Forgot Password](#) | [Don't have an Account](#)

Login

✓ Home Page :-



✓ Admin Profile Page :-

A screenshot of the N.S Coffee Admin Profile page. The top navigation bar has a dark background with 'N.S Coffee Delicious Taste' on the left and 'Admin' with a dropdown arrow on the right. A 'Logout' button is located in the top right corner of the main content area. On the left, a sidebar lists navigation options: Home, Admins, Orders, Products, and Bookings. The main content area contains four cards: 'Products' (number of products: 15), 'Orders' (number of orders: 1), 'Bookings' (number of bookings: 1), and 'Admins' (number of admins: 1). Each card has a small 'View Details' button.

✓ Admin Panel Page :-

The screenshot shows the Admin Panel for 'N.S Coffee Delicious Taste'. The top navigation bar includes the brand name and a dropdown for 'Admin'. On the left, a sidebar lists 'Home', 'Admins', 'Orders', 'Products', and 'Bookings'. The main content area is titled 'Admins' and displays a table with one row of data:

Id	Name	Email
2	Admin	admin@123

A blue 'Create Admins' button is located in the top right corner of the table's container.

✓ Orders page :

The screenshot shows the Admin Panel for 'N.S Coffee Delicious Taste'. The top navigation bar includes the brand name and a dropdown for 'Admin'. On the left, a sidebar lists 'Home', 'Admins', 'Orders', 'Products', and 'Bookings'. The main content area is titled 'Orders' and displays a table with one row of data:

Order Id	First Name	Last Name	Cust. Id	Street Address	State	Zip Code	Phone	Total Price	Status	Update Status	Delete
1	shriraj	pawar	2	Satara	Satara	415001	08767982007	\$11	delivered	<button>Update</button>	<button>Delete</button>

✓ Products Page :-

N.S Coffee Delicious Taste

Admin ▾

Home
Admins
Orders
Products
Bookings

Foods

Add New Product

ID	Name	Image	Price	Type	Delete
1	Coffee Capuccino		\$4.90	coffee	<button>delete</button>
2	Creamy Latte Coffee		\$5.10	coffee	<button>delete</button>
3	Cold Coffee		\$3.65	coffee	<button>delete</button>
4	Lemonade Juice		\$2.90	drink	<button>delete</button>
5	Pineapple Juice		\$3.50	drink	<button>delete</button>
6	Hot Cake Honey		\$3.85	dessert	<button>delete</button>

✓ Bookings Page :-

N.S Coffee Delicious Taste

Admin ▾

Home
Admins
Orders
Products
Bookings

Bookings

Booking Id	First Name	Last Name	Cust. Id	Date	Time	Phone	Message	Status	Update Status	Delete
1	shriraj	pawar	4	10/15/2025	12:00am	0876798200	dsfsfse	cancelled	<button>Update</button>	<button>Delete</button>

✓ Register Page :-



HOME MENU SERVICES ABOUT CONTACT LOGIN REGISTER

REGISTER

Username

Email

Password

Already have an Account [Login](#)

[Register](#)

✓ Menu Page :-



HOME MENU SERVICES ABOUT CONTACT LOGIN REGISTER

Discover OUR PRODUCTS

Far far away, behind the word mountains, far from the countries Vokalia and Consonantia, there live the blind texts.

Coffee Drinks Desserts Main Dish



DESSERTS

 Hot Cake Honey	\$3.85	Far far away, behind the word mountains, far from the countries Vokalia and Consonantia.
 Cherry Butter Cake	\$4.00	Far far away, behind the word mountains, far from the countries Vokalia and Consonantia.
 Banana Cheery Cake	\$4.00	A small river named Duden flows by their place and supplies

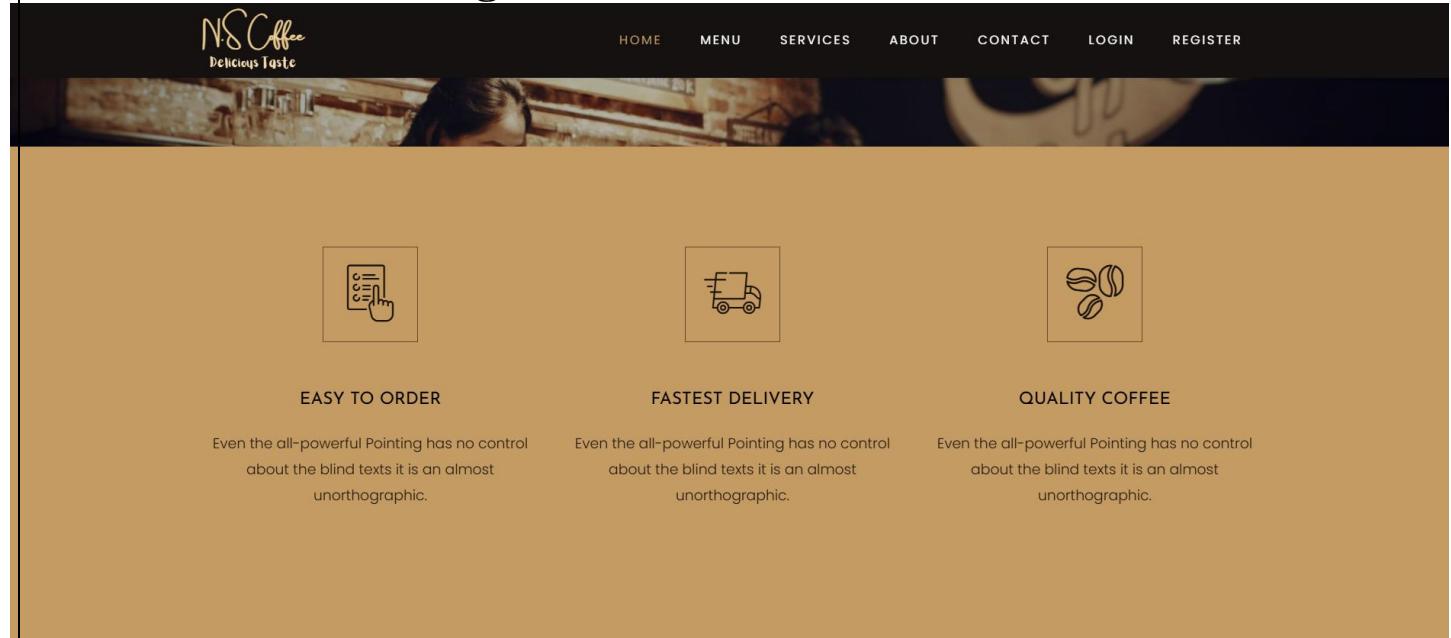
DRINKS

 Lemonade Juice	\$2.90	Far far away, behind the word mountains, far from the countries Vokalia and Consonantia.
 Pineapple Juice	\$3.50	Far far away, behind the word mountains, far from the countries Vokalia and Consonantia.
 Soda Drinks	\$5.90	Far far away, behind the word mountains, far from the countries Vokalia and Consonantia.

STARTER

MAIN DISH

✓ Services Page :-



The screenshot shows the services page of the NS Coffee website. At the top, there's a dark header with the logo "NS Coffee Delicious Taste" on the left and navigation links for HOME, MENU, SERVICES, ABOUT, CONTACT, LOGIN, and REGISTER. Below the header is a large banner image of a person working at a coffee shop counter. Underneath the banner, there are three service offerings: "EASY TO ORDER" with a hand pointing icon, "FASTEAST DELIVERY" with a delivery truck icon, and "QUALITY COFFEE" with a coffee beans icon.

EASY TO ORDER

Even the all-powerful Pointing has no control about the blind texts it is an almost unorthographic.

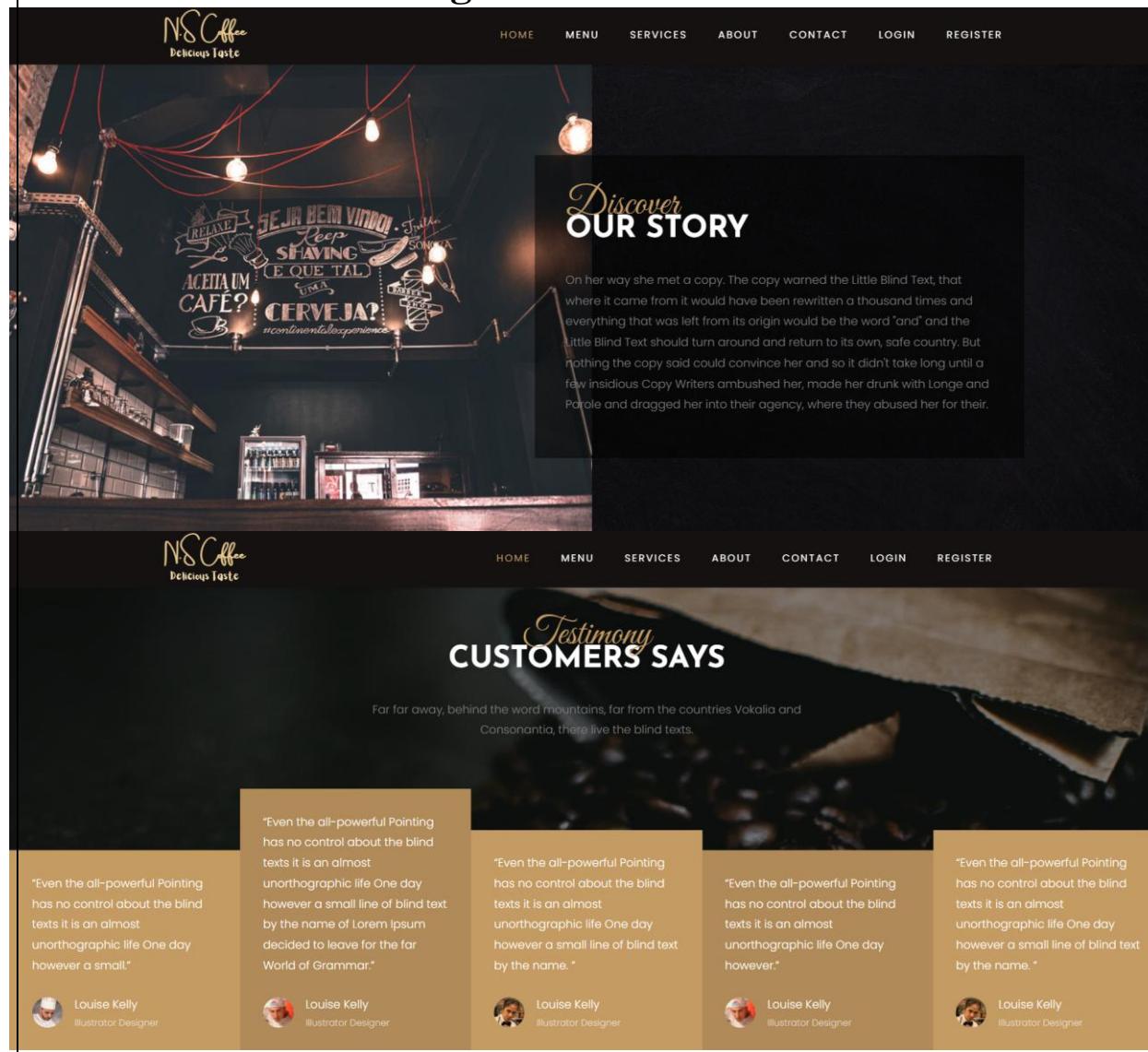
FASTEAST DELIVERY

Even the all-powerful Pointing has no control about the blind texts it is an almost unorthographic.

QUALITY COFFEE

Even the all-powerful Pointing has no control about the blind texts it is an almost unorthographic.

✓ About us Page :-



The screenshot shows the about us page of the NS Coffee website. It features a large image of a coffee shop interior with a chalkboard menu. Overlaid on the image is a call-to-action button with the text "Discover OUR STORY". Below the image, there's a section titled "Testimony CUSTOMERS SAY" with a quote from a customer named Louise Kelly. The page also includes a sidebar with a quote from the same customer.

HOME MENU SERVICES ABOUT CONTACT LOGIN REGISTER

Discover OUR STORY

On her way she met a copy. The copy warned the Little Blind Text, that where it came from it would have been rewritten a thousand times and everything that was left from its origin would be the word "and" and the Little Blind Text should turn around and return to its own, safe country. But nothing the copy said could convince her and so it didn't take long until a few insidious Copy Writers ambushed her, made her drunk with Longe and Parole and dragged her into their agency, where they abused her for their.

Testimony CUSTOMERS SAY

Far far away, behind the word mountains, far from the countries Vokalia and Consonantia, there live the blind texts.

"Even the all-powerful Pointing has no control about the blind texts it is an almost unorthographic life One day however a small line of blind text by the name of Lorem Ipsum decided to leave for the far World of Grammar."

Louise Kelly
Illustrator Designer

"Even the all-powerful Pointing has no control about the blind texts it is an almost unorthographic life One day however a small line of blind text by the name of Lorem Ipsum decided to leave for the far World of Grammar."

Louise Kelly
Illustrator Designer

"Even the all-powerful Pointing has no control about the blind texts it is an almost unorthographic life One day however a small line of blind text by the name."

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"Even the all-powerful Pointing has no control about the blind texts it is an almost unorthographic life One day however a small line of blind text by the name."

Louise Kelly
Illustrator Designer

"Even the all-powerful Pointing has no control about the blind texts it is an almost unorthographic life One day however a small line of blind text by the name."

Louise Kelly
Illustrator Designer

✓ Contact us Page :-

The screenshot shows the contact form on the NS Coffee website. At the top, there is a logo for "NS Coffee" with the tagline "Delicious Taste". Below the logo, a navigation bar includes links for HOME, MENU, SERVICES, ABOUT, CONTACT, LOGIN, and REGISTER. The main content area is titled "Contact Information". It features several input fields: "Your Name", "Your Email", "Subject", and "Message". Below these fields are some pre-filled contact details: "Address: 198 West 21th Street, Suite 721 New York NY 10016", "Phone: +91 1235 2355 98", "Email: info@yoursite.com", and "Website: yoursite.com". A large orange "Send Message" button is positioned at the bottom of the form.

✓ Cart Page :-

The screenshot shows the shopping cart page on the NS Coffee website. The top navigation bar includes the logo, "HOME", "MENU", "SERVICES", "ABOUT", "CONTACT", a shopping cart icon, and "SHRI". The main content area displays a message "Your Cart is Empty". To the right, a "CART TOTALS" summary table is shown:

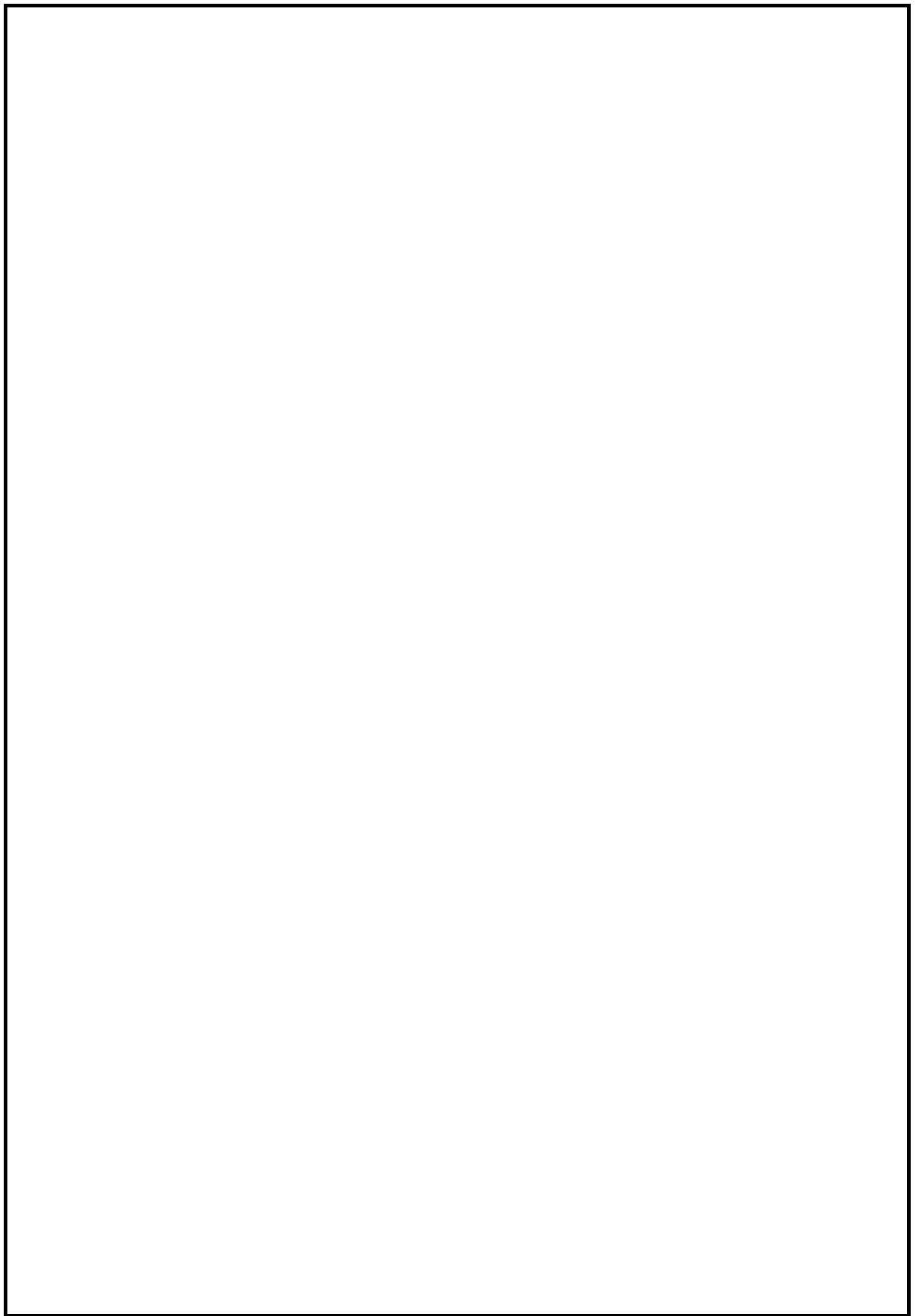
CART TOTALS	
Subtotal	\$0.00
Delivery	\$0.00
Discount	\$0.00
TOTAL	\$0.00

✓ Bookings page :-

The screenshot shows the bookings page on the NS Coffee website. The top navigation bar includes the logo, "HOME", "MENU", "SERVICES", "ABOUT", "CONTACT", a shopping cart icon, and "SHRI". The main content area displays a message "Your Booking is Empty". To the right, a table header is visible:

First Name	Last Name	Date	Time	Phone	Message	Status
------------	-----------	------	------	-------	---------	--------

IMPLEMENTATION



IMPLEMENTATION

Implementation

Implementation is the phase where the system design is transformed into a working application. It involves coding, integrating components, preparing the execution environment, testing modules, and finally deploying the system for actual use. For the **Coffee Shop Management System (CSMS)**, implementation focuses on building a robust, secure, and maintainable application that automates order-taking, customer management, product/menu inventory, billing, payments, and reporting.

This chapter documents the choices made during implementation, the development environment, module-level realization, data integration, testing procedures, deployment plan, maintenance strategy, and user instructions.

5.2 Development Environment and Tools

Hardware Requirements (for development & small production):

- **Processor:** Intel Core i3 or equivalent (i5 or higher recommended for production)
- **RAM:** Minimum 4 GB (8 GB recommended)
- **Disk:** 250 GB HDD / 128 GB SSD minimum
- **Display:** 1366×768 or higher

Software Stack:

- **Programming Language:** PHP (for business logic)
- **Web Technologies:** HTML5, CSS3, JavaScript,
- **Web Server:** Apache (via XAMPP/LAMP stack)
- **Database:** MySQL 5.7 / 8.0 (or MariaDB)
- **IDE:** Visual Studio Code
- **Reporting Tools:** PHP libraries such as TCPDF / FPDF for generating PDF invoices and reports
- **Browser for UI testing:** Chrome, Firefox, Edge

Libraries and Frameworks:

- **PHP MySQLi / PDO** (for database connectivity)

- **JavaScript/jQuery** (for dynamic interactions such as live order updates)
-

Implementation Steps Include:

1. Coding individual modules (Login, Customer, Product/Menu, Billing, Payment, Reports, Feedback).
 2. Integrating all modules and ensuring smooth data flow between them.
 3. Preparing the execution environment (Apache + MySQL + PHP setup).
 4. Unit testing of each module (e.g., verifying billing calculations, stock updates).
 5. System testing as a whole to ensure all components work together.
 6. Deployment of the system for real use in the coffee shop.
 7. Maintenance plan for bug fixes, updates in menu, tax rates, and additional features in the future.
-
-

- BCrypt or PBKDF2 (for password hashing)
 - (Optional) Bootstrap for responsive UI layout
 - (Optional) jQuery for small UI behavior enhancements
-

5.3 System Architecture

The Coffee Shop Management System (CSMS) adopts a **three-tier web architecture** that separates concerns for better scalability, maintainability, and security.

1. Presentation Layer (Client / Browser):

- Technologies: HTML5, CSS3, Bootstrap, JavaScript (with optional jQuery).
- Provides forms and interfaces for user interactions such as login, menu browsing, order placement, billing, and viewing reports.
- Client-side validation (e.g., required fields, input formats) improves responsiveness by reducing unnecessary server calls, but all critical checks are re-validated on the server.

2. Business Logic Layer (Server-side):

- Technologies: PHP (or Java if implemented with Servlets), working as the Controller.
- Handles the main application logic, including:
 - User authentication and authorization (Admin, Staff, Customer roles).
 - Order processing (menu selection, order confirmation, applying discounts/taxes).
 - Billing and invoice calculation (item price × quantity + GST).
 - Stock and inventory updates after each sale.
 - Report generation (daily sales, popular items, revenue summary).
- Uses Data Access Object (DAO) classes / modules to interact with the database securely.

3. Data Layer:

- Technology: MySQL (relational database).
 - Stores normalized data in tables such as:
 - **Users** (Admin, Staff, Customers)
 - **Products/Menu Items**
 - **Orders**
 - **Order_Items**
 - **Payments**
 - **Feedback**
 - Database access is done through parameterized queries / prepared statements to prevent SQL injection.
 - Constraints (primary keys, foreign keys, unique keys) are applied to maintain data integrity.
-

SYSTEM REQUIREMENTS

5.4 Hardware and Software Requirements

The Coffee Shop Management System (CSMS) requires appropriate hardware and software resources to ensure smooth development, testing, and deployment.

Hardware Requirements

Development Environment:

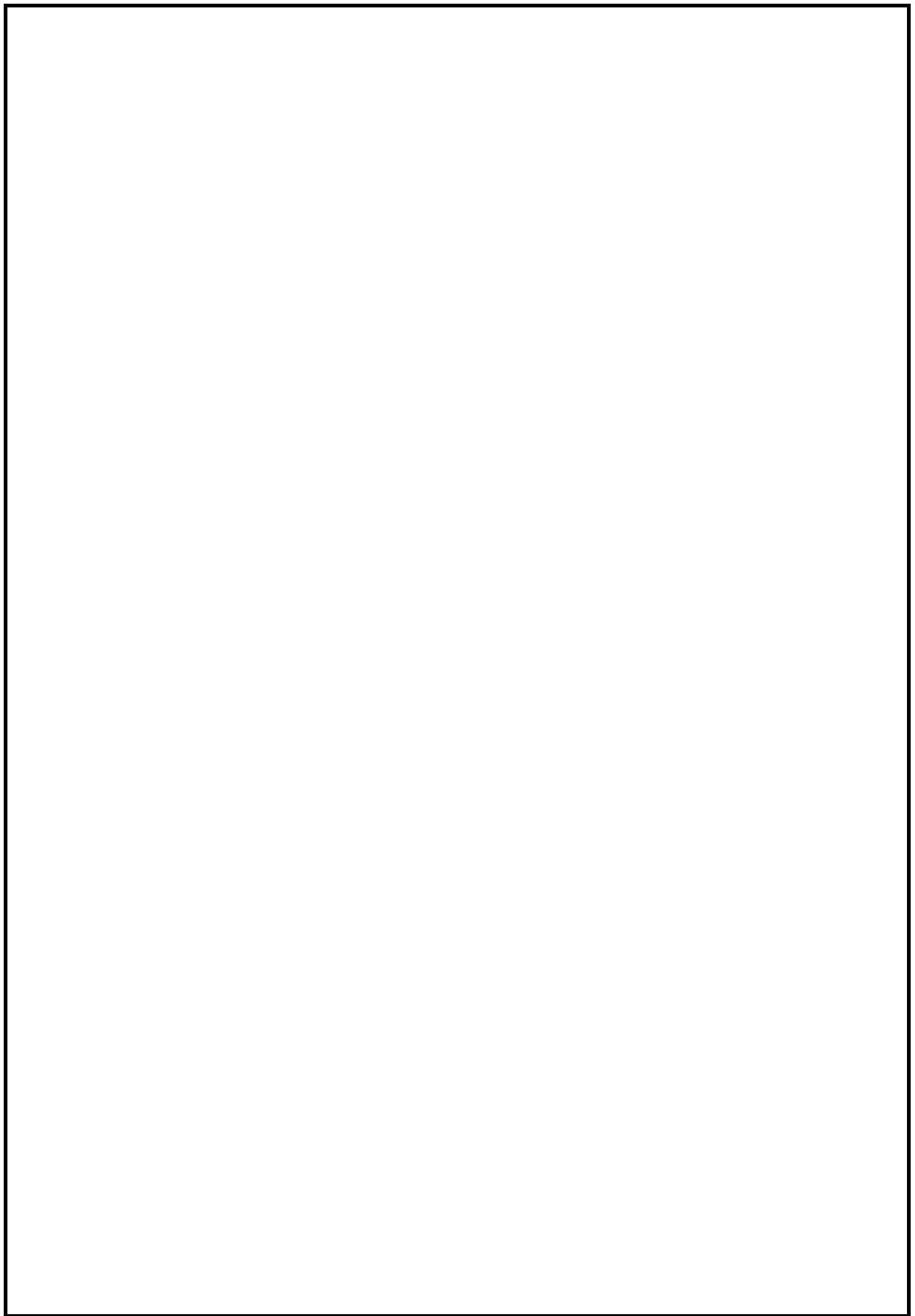
- Processor: Intel Core i3 or higher (i5 recommended)
- RAM: Minimum 4 GB (8 GB recommended)
- Storage: 250 GB HDD / 128 GB SSD minimum
- Input Devices: Standard keyboard and mouse
- Optional: Printer for testing invoices

Deployment / Coffee Shop Use:

- Processor: Intel Core i5 or higher
- RAM: 8 GB minimum (16 GB recommended)
- Storage: 512 GB SSD
- Network: LAN/Wi-Fi setup for multi-terminal access
- Output Devices: Thermal or laser printer for bills
- Optional: Barcode scanner for faster product selection
- UPS / Power backup for uninterrupted service

Software Requirements

- **Operating System:** Windows 10/11
- **Programming Language & Web Technologies:** PHP (or optionally Java for server logic), HTML5, CSS3, JavaScript,
- **Web Server:** Apache (via XAMPP / LAMP stack)
- **Database:** MySQL 8.0 or MariaDB
- **IDE / Code Editor:** Visual Studio Code,
- **Other Tools:**
 - MySQL Workbench (for database design)
- **Browser Support for UI Testing:** Chrome, Firefox, Edge



MYSQL SERVER

MySQL is Fasteasy-to-useRDBMS being used for many small and big businesses. MySQL, I developed Marketed and supported by MySQL AB, which is Swedish company MySQL is becoming so popular because of many good reasons –

- MySQL is released under an open-source license. So, you have nothing to pay to use it.
- The default file size limit MySQL is very powerful program in its own right. It handles a large subset of the functionality of the most expensive and powerful database packages
- MySQL uses a student of the well-known SQL data Language.
- MySQL works on many operation systems and with many languages including PHP, PERL, C, C++, JAVA, etc.
- MySQL works very quickly and works well even with large data sets.
- MySQL is very friendly to PHP, the most appreciated language for web development.
- MySQL supports large databases up to 50 million rows or more in a table

-
- MySQL is customizable. The open-source GPL license allows programmers to modify the MySQL software to fit their own specific environment.
 - A table can have a maximum of 4GB but you can increase this to a theoretical limit of 8 million TB.

OUTPUTS

SCREENSAND REPORTS

□ View Products :

N.S Coffee Delicious Taste Admin

Home Admins Orders Products Bookings

Foods					
Id	name	image	price	type	delete
1	Coffee Capuccino		\$4.90	coffee	<button>delete</button>
2	Creamy Latte Coffee		\$5.10	coffee	<button>delete</button>
3	Cold Coffee		\$3.65	coffee	<button>delete</button>
4	Lemonde Juice		\$2.90	drink	<button>delete</button>
5	Pineapple Juice		\$3.50	drink	<button>delete</button>
6	Hot Cake Honey		\$3.85	dessert	<button>delete</button>

Bookings status :-

N.S Coffee Delicious Taste Admin

Home Admins Orders Products Bookings

Update Booking Status

Choose Status

Pending

Confirmed

Cancelled

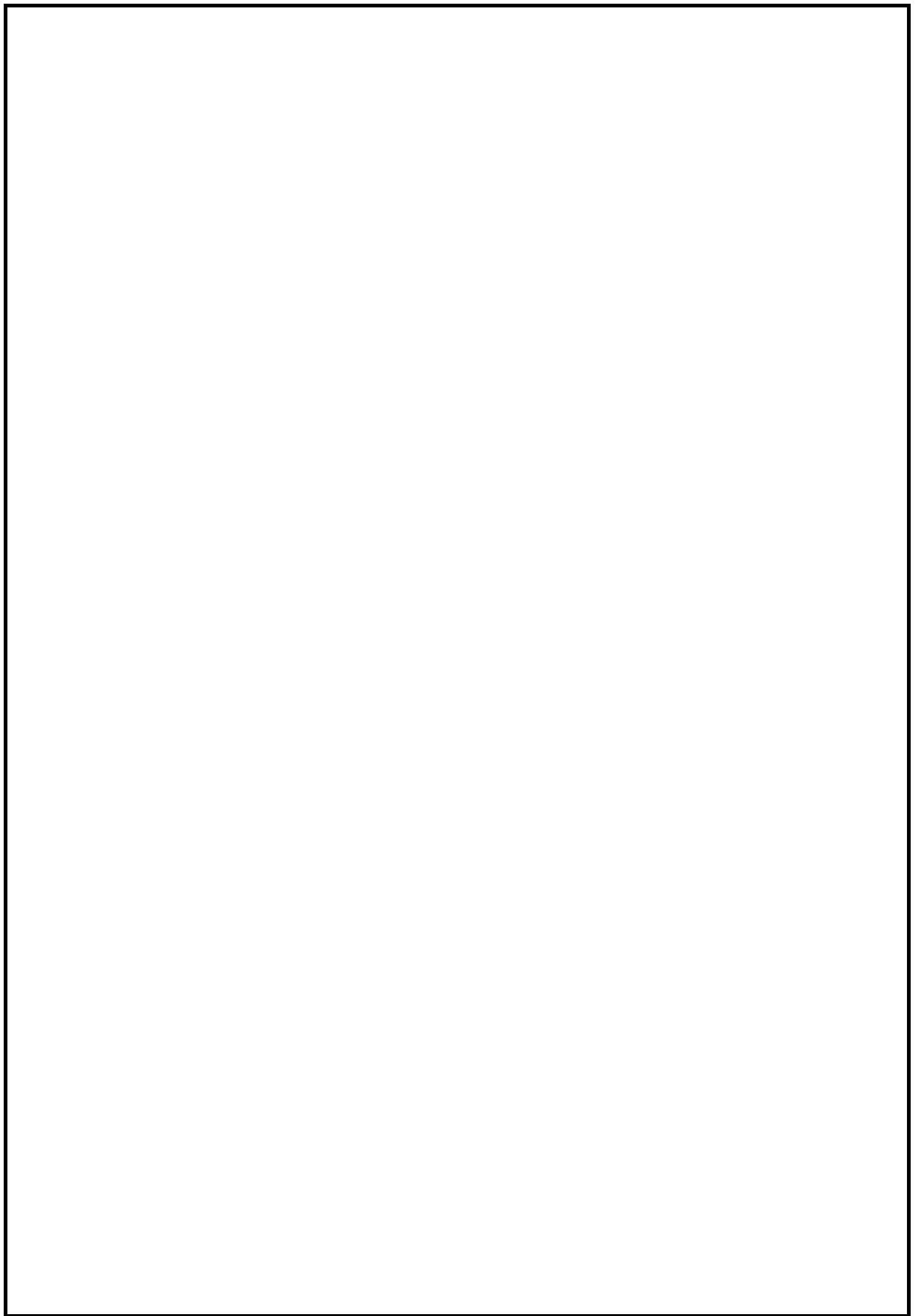
On Hold

□ View Customers:

N.S Coffee Delicious Taste Admin ▾

Home Admins Orders Products Bookings

Orders											
Order Id	First Name	Last Name	Cust. Id	Street Address	State	Zip Code	Phone	Total Price	Status	Update Status	Delete
1	shriraj	pawar	2	Satara	Satara	415001	08767982007	\$11	delivered	<button>Update</button>	<button>Delete</button>
2	shriraj	pawar	7	Satara	Satara	415001	08767982007	\$7	pending	<button>Update</button>	<button>Delete</button>
3	shriraj	pawar	7	Satara	Satara	415001	08767982007	\$11	pending	<button>Update</button>	<button>Delete</button>



**CONCLUSION
AND SUGGESTIONS**

CONCLUSION

The Coffee Shop Management System (CSMS) was developed to address the limitations of traditional, manual coffee shop operations, such as handwritten bills, manual stock tracking, and difficulty in generating reports. By adopting a computerized solution, the system ensures accuracy, speed, security, and professionalism in daily business activities.

The project successfully integrates modules for customer management, menu and inventory control, order processing, billing and invoicing, payments, reporting, and feedback collection. It automates calculations such as total bill computation, discounts, and taxes, thereby reducing human error. Real-time stock updates and professional invoices improve operational efficiency and enhance customer trust.

From a development perspective, the project demonstrates the practical application of PHP, MySQL, HTML/CSS, JavaScript, and Apache server in building a complete web-based application. It also highlights the importance of requirement engineering, system design, feasibility analysis, database design, implementation, testing, and documentation in software development.

Overall, CSMS fulfills its objectives by providing a robust, user-friendly, and scalable solution for coffee shops. It also serves as a foundation for future enhancements, such as online ordering, delivery integration, loyalty programs, and multi-branch management, in line with modern business needs.

:::

If you want, I can also **compile all the sections we've written so far into a complete, formatted Coffee Shop Management System report** ready for submission. This would include: Introduction, Existing System, Proposed System, SRS, Requirement Gathering, System Analysis Feasibility Study, Implementation, System Architecture, Hardware/Software Requirements, Module Description, and Conclusion.

FUTURE ENHANCEMENT

While the current Coffee Shop Management System meets the core needs of daily operations, the following suggestions can help improve its functionality and adaptability in the future:

1. Online Ordering and Delivery Integration

- Extend the system into an e-commerce or app-based platform where customers can browse the menu, place orders, and schedule deliveries or pickups.

2. Mobile Application Support

- Develop Android/iOS apps to allow staff to take orders, generate bills, and update stock from mobile devices.
- Customers can access their order history, track loyalty points, or place repeat orders through the app.

3. Barcode / QR Code Scanning

- Implement barcode or QR code scanning for faster product selection, stock updates, and order processing.

4. AI-Based Recommendations

- Use AI or analytics to suggest popular drinks or combos based on customer preferences, purchase history, or seasonal trends.

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