A
Project Report
On
"Online Grocery Station

Prepared by
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Under the guidance of

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Assistant Professor

A Report Submitted to

Charotar University of Science and Technology

for Partial Fulfillment of the Requirements for the

4th Semester Software Group Project-II(CE255)

Submitted at

CSE

DEPSTAR

At: Changa, Dist: Anand – 388421

April 2023

CERTIFICATE

This is to certify that the report entitled "**Online Grocery Station**" is a bonafied work carried out by **Mr. Vandan Patel (D22DCS161)** under the guidance and supervision of **Assistant Prof. Bansari Patel** and **Prof. Dipak Ramoliya** for the subject **CE255 - Software Group Project-II** (CSE) of 4th Semester of Bachelor of Technology in **DEPSTAR** at Faculty of Technology & Engineering – CHARUSAT, Gujarat.

To the best of my knowledge and belief, this work embodies the work of candidate himself, has duly been completed, and fulfills the requirement of the ordinance relating to the B.Tech. Degree of the University and is up to the standard in respect of content, presentation and language for being referred to the examiner.

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This is to certify that the report entitled "**Online Grocery Station**" is a bonafied work carried out by **Mr. Umang Dave (D22DCS158)** under the guidance and supervision of **Assistant Prof. Bansari Patel** and **Prof. Dipak Ramoliya** for the subject **CE255 - Software Group Project-II** (CSE) of 4th Semester of Bachelor of Technology in **DEPSTAR** at Faculty of Technology & Engineering – CHARUSAT, Gujarat.

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DECLARATION BY THE CANDIDATES

We hereby declare that the project report entitled "**Online Grocery Station"** submitted by me to Devang Patel Institute of Advance Technology and Research, Changa in partial fulfilment of the requirement for the award of the degree of **B. Tech.** in Computer Engineering, from Devang Patel Institute of Advance Technology and Research, DEPSTAR/FTE, is a record of bonafide CE255 Software Project GROUP (project work) carried out by us under the guidance of **Prof. Bansari Patel** and **Prof. Dipak Ramoliya.** We further declare that the work carried out and documented in this project report has not been submitted anywhere else either in part or in full and it is the original work, for the award of any other degree or diploma in this institute or any other institute or university.

Vandan Patel (D22DCS161) Umang Dave (D22DCS158)

Signature of student **Signature of student**

ACKNOWLEDGEMENT

We, the developer of a console-based game **"Online Grocery Station**", with immense pleasure and commitment would like to present the project assignment. The development of this project has given us wide opportunity to think, implement and interact with various aspects of management skills as well as the new emerging technologies.

Every work that one completes successfully stands on the constant encouragement, good willand support of the people around. We hereby avail this opportunity to express us gratitude to number of people who extended their valuable time, full support and cooperation in developing the project.

We express deep sense of gratitude towards our Head of the CSE Department, Dr. Chirag Patel and project guide Prof. Bansari Patel and Prof. Dipak Ramoliya for the support during the whole session of study and development. It is because of them, that we were prompted to do hard work, adopting new technologies.

Thanks,

Vandan Patel (D22DCS161)

Umang Dave (D22DCS158)

ABSTRACT

The project "**Online Grocery Station**" is a web-based application developed using HTML, CSS, and PHP programming languages. The main objective of this project is to provide an online platform for customers to order groceries from the comfort of their homes. The project includes features such as registration and login for customers, a shopping cart to add products, product catalog, and payment gateway integration. The project also includes an admin panel for managing orders, products, and user accounts. The use of HTML and CSS ensures a user-friendly interface, while PHP handles the server-side functionalities such as data storage and processing. Overall, the project aims to simplify the grocery shopping experience and provide a convenient solution for customers.

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CHAPTER 1: INTRODUCTION

1.1 Project overview

The "Online Grocery Management" project is a web-based application that allows customers to order groceries online and provides an online platform for grocery store owners to manage their business. The project includes a user-friendly interface for customers to browse products, add them to their cart, and complete the payment process. The application also includes an admin panel for managing orders, inventory, and user accounts.

The project will be developed using HTML, CSS, and PHP programming languages, along with a database for storing and retrieving data. The project may also require integration with third-party services such as payment gateways and delivery services.

The project overview will include a detailed description of the project's functionality, features, and user requirements. It will also outline the project's scope, timeline, and budget. The overview will serve as a blueprint for the development team to follow throughout the project lifecycle.

1.2 Objective

- Develop a user-friendly web application that allows customers to browse and purchase groceries online.
- Implement a functional inventory management system that allows grocery store employees to track stock levels and manage inventory.
- Design and implement a visually appealing user interface that is easy to navigate and intuitive for users and employees.
- Create a dynamic web application that can process user input such as search queries and shopping cart selections and provide appropriate responses.
- Implement appropriate security measures to protect customer and employee data and prevent unauthorized access to sensitive information.
- Develop and implement a functional database system using PHP to store and retrieve product, customer, and order data.
- Integrate a payment gateway to allow customers to make payments securely and easily for their orders.
- Implement a delivery tracking system that allows customers to track the status of their order and receive updates on delivery times.
- Provide grocery store employees with a system for processing and fulfilling orders efficiently.
- Test the web application thoroughly to ensure it is error-free and meets all functional requirements.
- Deploy the web application on a suitable web server and ensure it is accessible to users.
- Provide comprehensive documentation of the application's design, functionality, and deployment process for future reference and maintenance.

1.3 Scope

The scope of the "Online Grocery Management" project is to develop a fully functional web-based application for managing online grocery orders. The application will provide a user-friendly interface for customers to browse products, add them to their cart, and complete the payment process. The project will also include an admin panel to manage orders, inventory, and user accounts. The project aims to simplify the grocery shopping experience for customers, while providing a convenient solution for grocery store owners to manage their business online. The scope of the project may also include integration with third-party services such as payment gateways and delivery services.

1.4 Tools & Technology Used

- Visual Studio Code
- Note-Pad++
- Xaamp Server

Device Compatibility:

- Any windows 10/11 have Updated Chrome Browser for HTML5

CHAPTER 2: PROJECT PLANNING

2.1 Project Development Approach and Justification

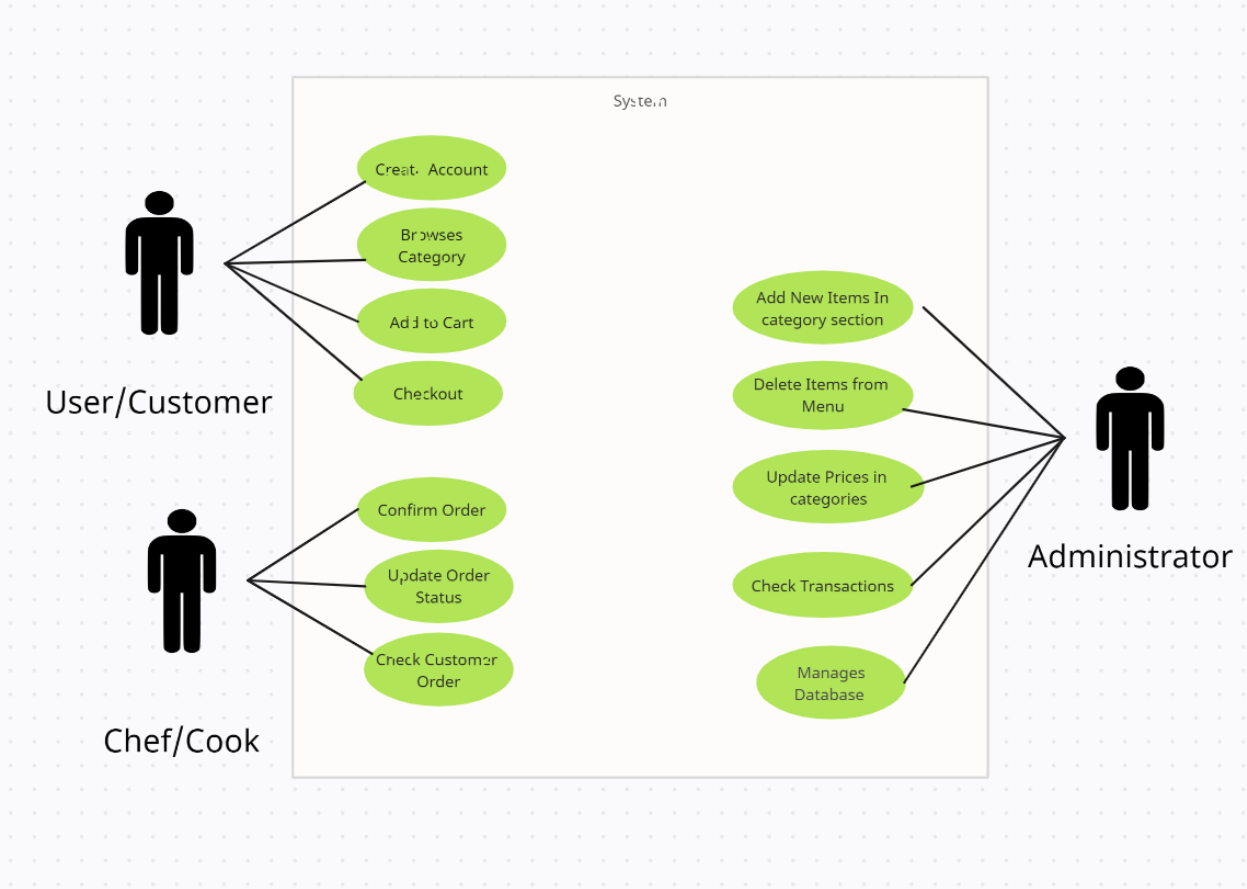

Figure 1 Use Case Diagram

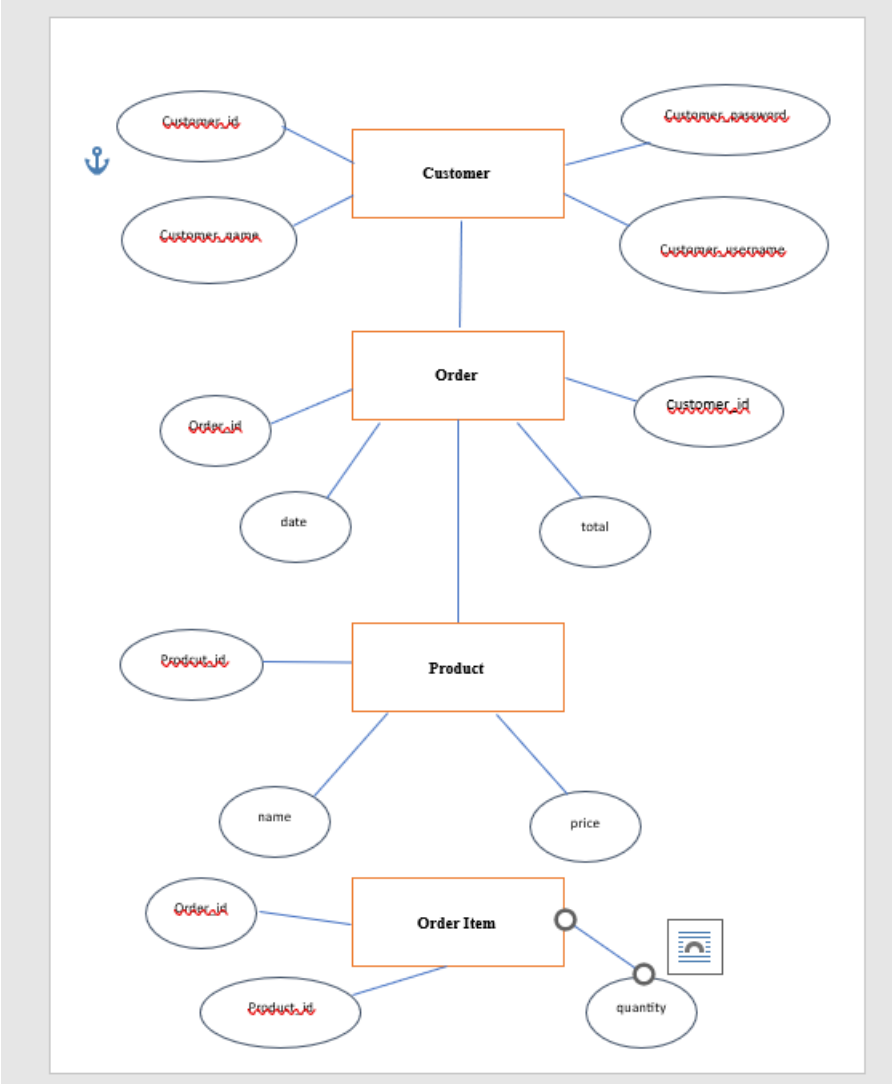

Figure 2 Entity Relationship diagram

(In this diagram there is one entity named customer which has four attributes and other entity named order which also has four attributes and other entity named product which has three attributes and other entity named order item which has three attributes)

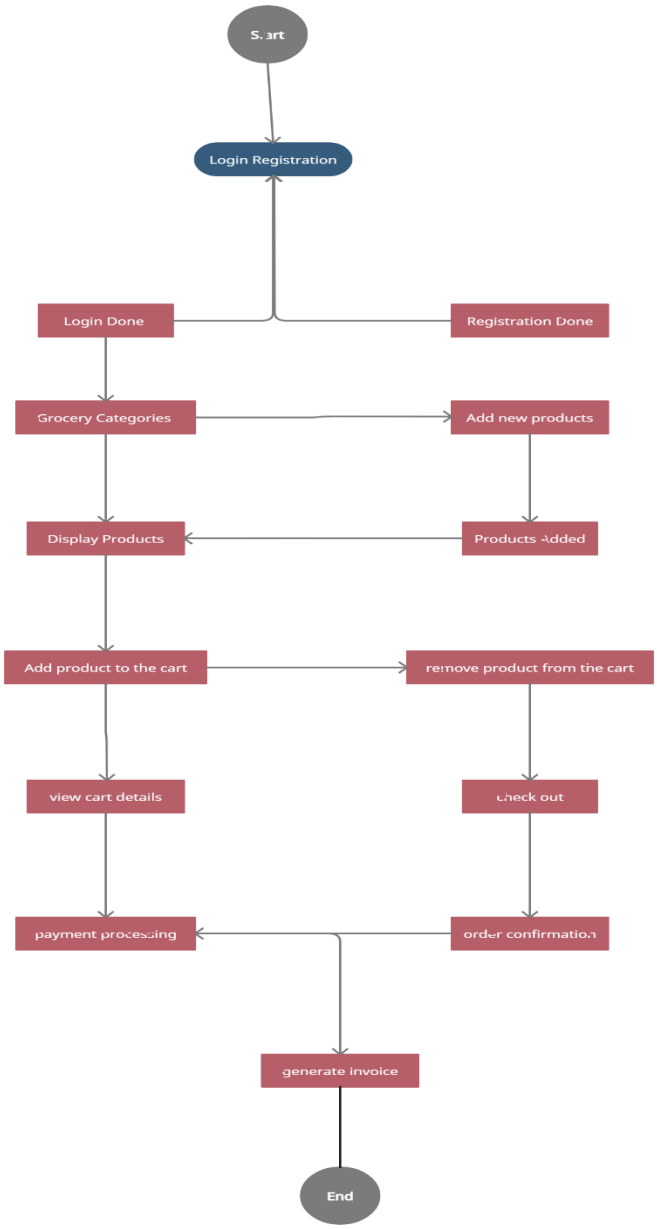

Figure 3 Activity Diagram

(In this diagram we can see user starts registration then fill up his/her details then user add groceries to the cart then user checks the cart then user goes for the payment page)

Figure 4 Sequence Diagram

(In this diagram we can see that there is sequence of process is done when user starts interacting with our website)

CHAPTER 3: SYSTEM REQUIRMENTS STUDY

3.1 USER CHARACTERSTICS

End Users:

- Firstly, the application will provide convenience to the end-users by enabling them to shop for groceries from the comfort of their homes, without having to physically visit a grocery store. This is particularly beneficial for users who are unable to leave their homes due to mobility issues, busy schedules, or other reasons.
- Secondly, the application will provide users with access to a wide variety of products and brands that may not be available at their local grocery store. This is especially useful for users who are looking for specific products or ingredients that are not readily available in their area.
- Thirdly, the application will provide users with a user-friendly interface that is easy to navigate, making it simple for users to search for and purchase the products they need.

3.2 HARDWARE AND SOFTWARE REQUIREMENTS

3.2.1 Hardware Specification

- Minimum 4 GB RAM
- Storage 256 GB SSD or 500 GB Hard Drive
- Graphic card 512 Mb

3.2.2 Software Specification

- OS: Windows 7 or above
- Ryzen or Intel Processor are Usable 1.8 Ghz 64-bit processor
- Visual Studio Code latest with HTML, CSS and PHP packages

CHAPTER 4: SYSTEM ANALYSIS

4.1 STUDY OF PROPOSED SOLUTION

- The study of the proposed system, "Online Grocery Management," will involve analyzing the current grocery shopping experience, identifying the pain points and challenges faced by users, and proposing a solution that addresses these issues. The study will involve a detailed analysis of the requirements and needs of the end-users, including both customers and grocery store owners.

- **Installing Visual Studio Code 2023**

1. Install Visual Studio Code on your computer and launch it.

2. Create a new folder for your project and open it in Visual Studio Code.

3. Create a new file with the .php extension, such as index.php, and add your PHP code to it.

4. Create a new file with the .html extension, such as index.html, and add your HTML code to it.

5. Create a new file with the .css extension, such as style.css, and add your CSS code to it.

6. Save all of your files in the project folder.

7. Install the PHP IntelliSense extension for Visual Studio Code to get code completion and syntax highlighting for PHP code.

8. Install the HTML CSS Support extension for Visual Studio Code to get code completion and syntax highlighting for HTML and CSS code.

9. Configure Visual Studio Code to use the PHP executable on your computer by going to File > Preferences > Settings, then searching for "php.validate.executablePath" and setting it to the path to your PHP executable.

10. Run your PHP code by opening the .php file in your web browser. You can also use a PHP development server to run your code by installing the PHP Server extension for Visual Studio Code.

CHAPTER 5: SYSTEM DESIGN

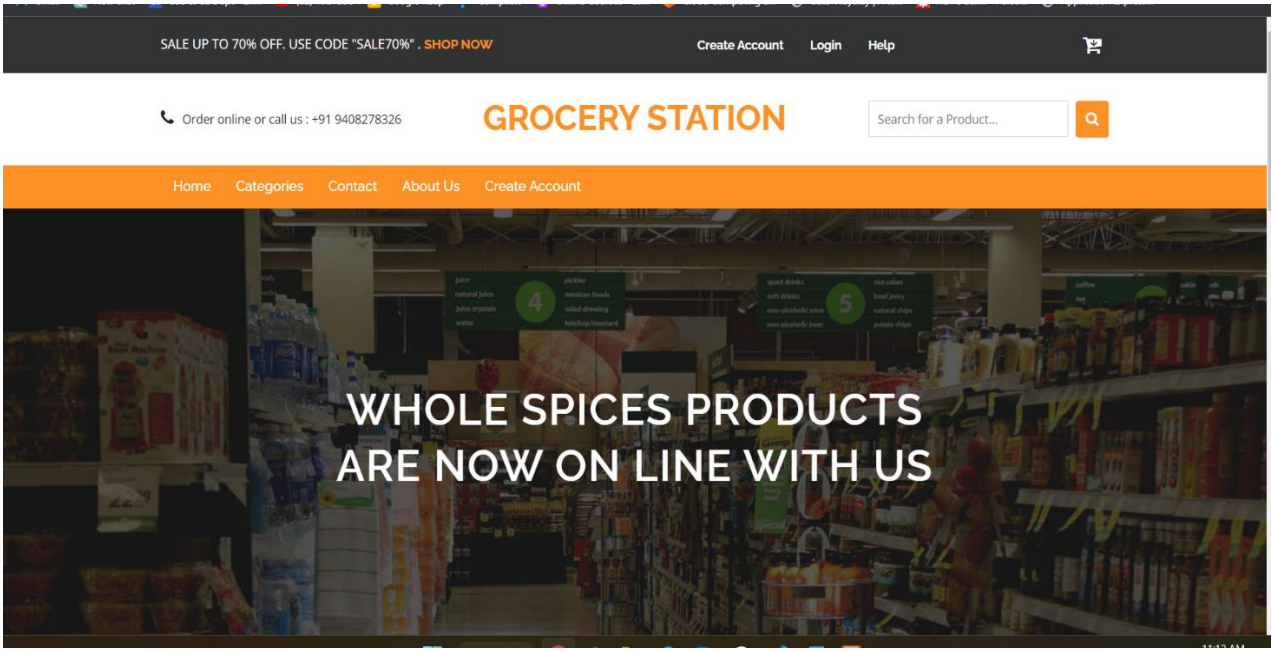

Figure 5Main Interface of website

(The above images shows the main interface of the website or homepage how it will look like when you log in**)**

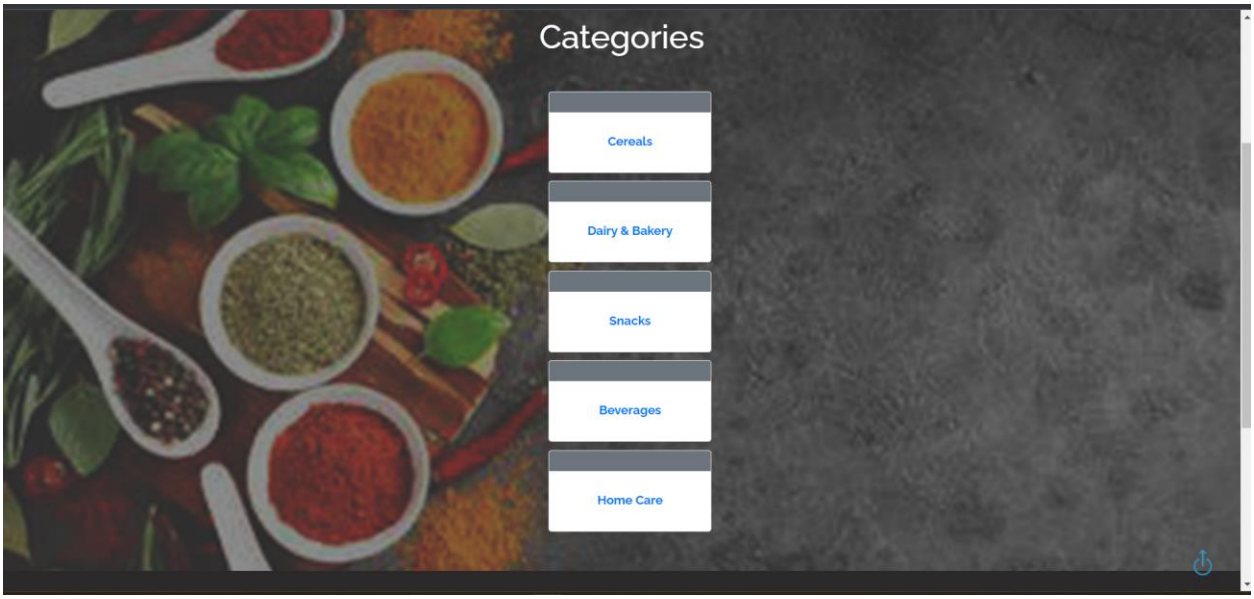

Figure 6 Categories Page

(The above images shows the categories page in which user selects it's choice of category and purchase the product)

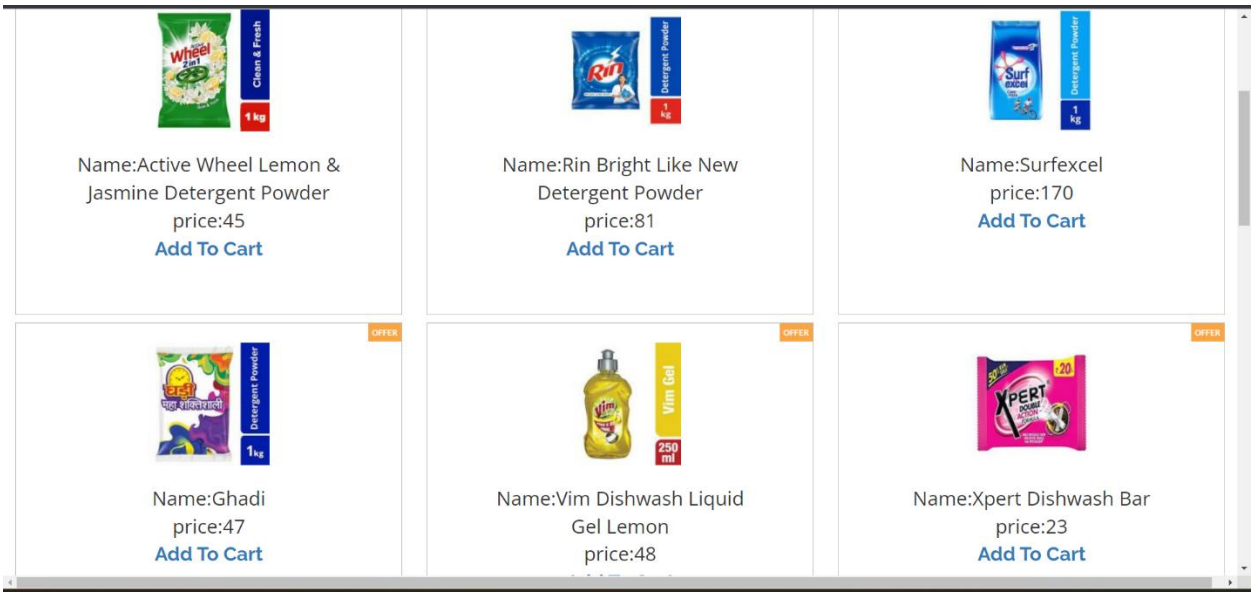

Figure 7 Home Care Product

(The above image shows that user has selected the home category or household products)

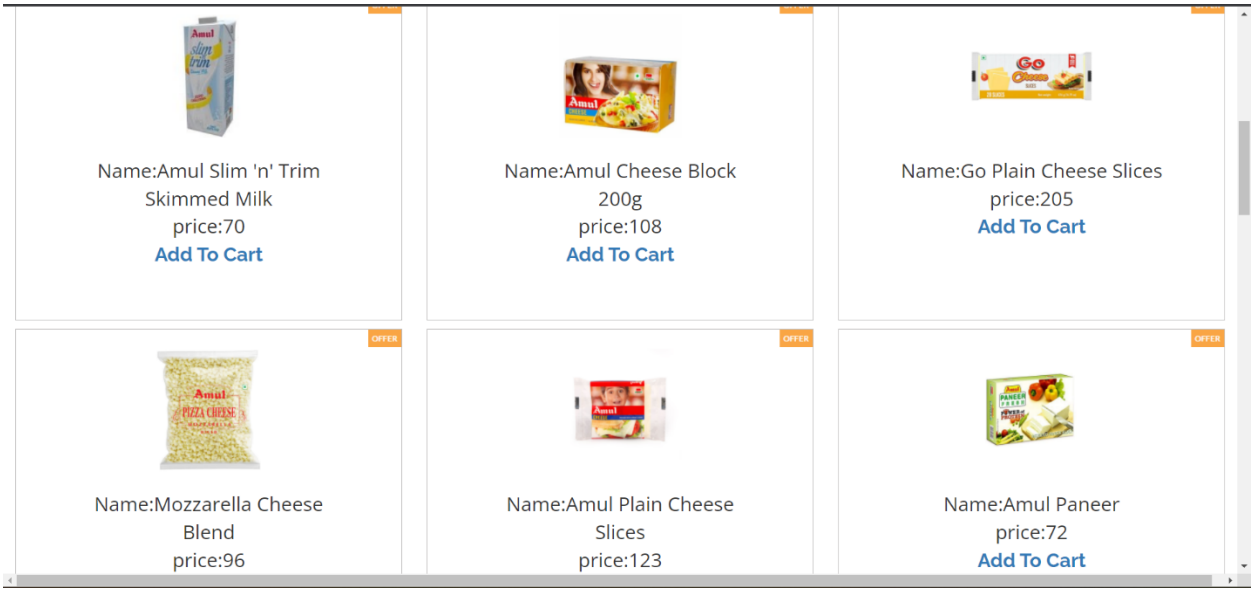

Figure 8 Dairy Product

(The above images shows that user has selected dairy product category)

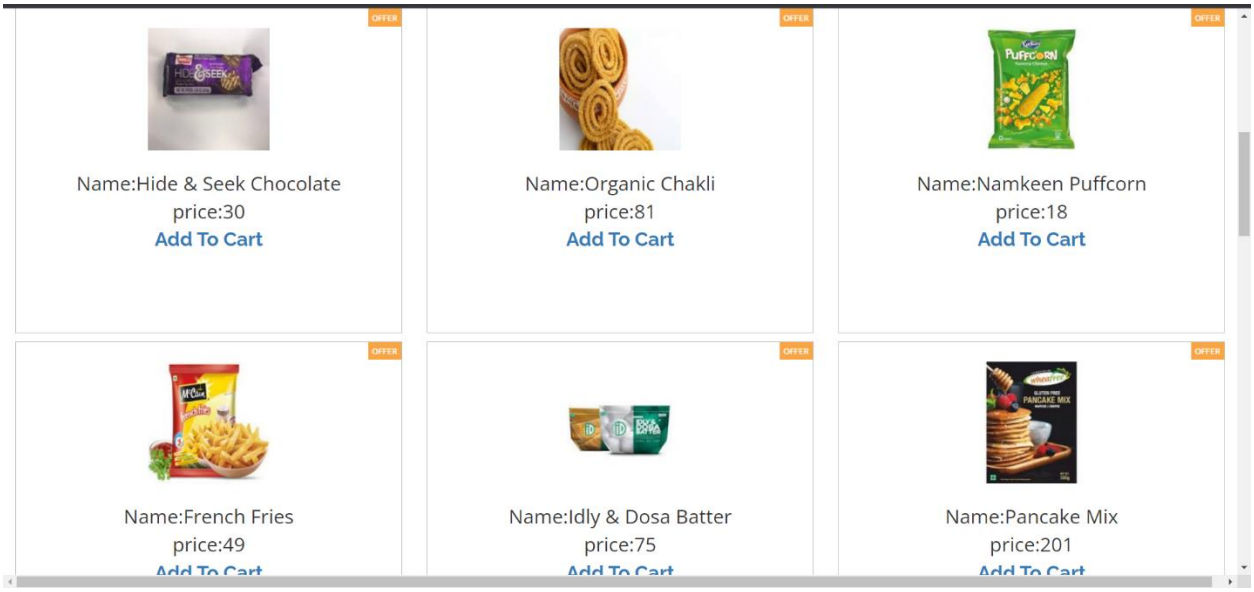

Figure 9 Snack Category

(Above figure shows that the user has selected snack category from category page)

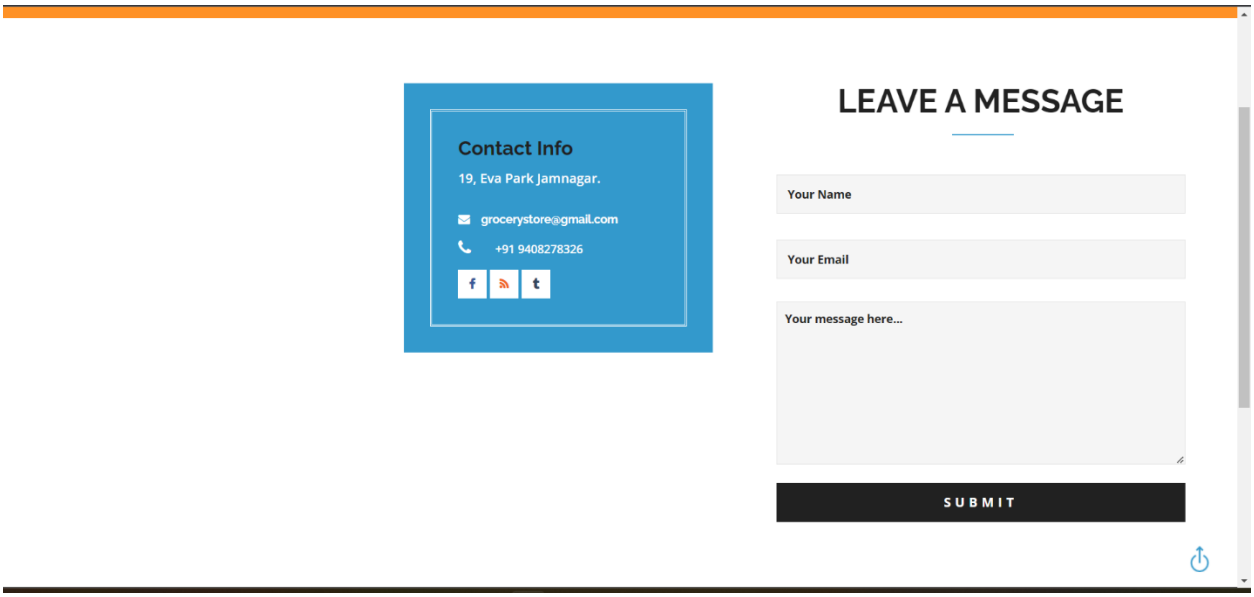

Figure 10 Contact Us Page

(Above Images shows the contact page of website from this page you can message and contact us in case of any help)

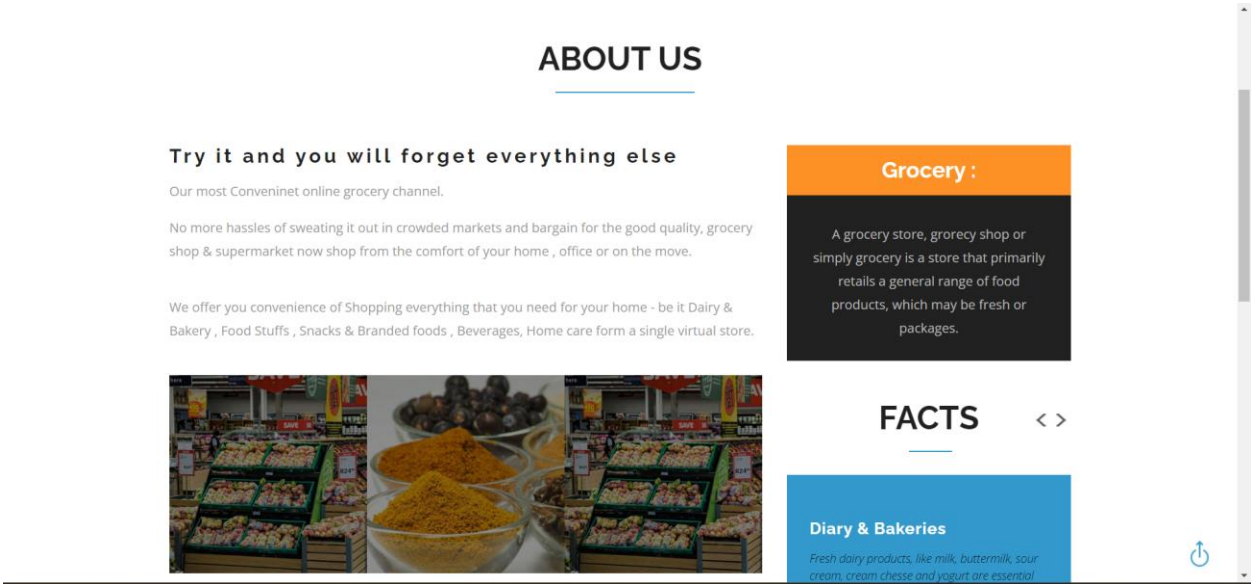

Figure 11 About Us Page

(Above image shows the about us page of website from this page user can see the facts of dairy and cereals and grocery store)

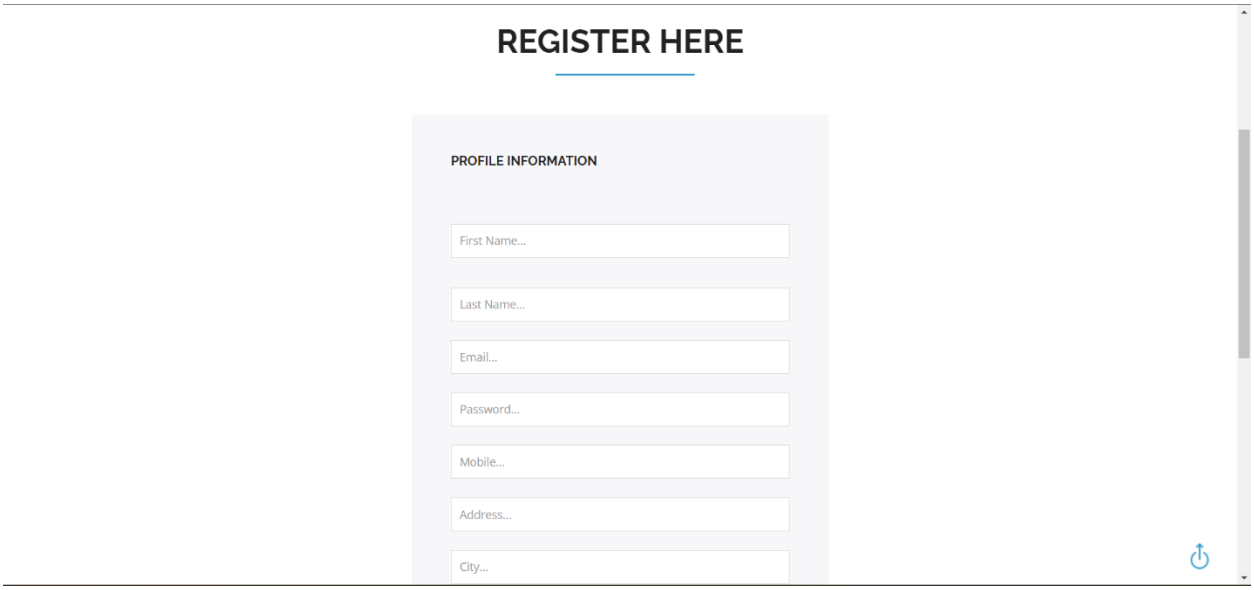

Figure 12 Account Creation Page

(Above images shows that user can create account and fill up the details)

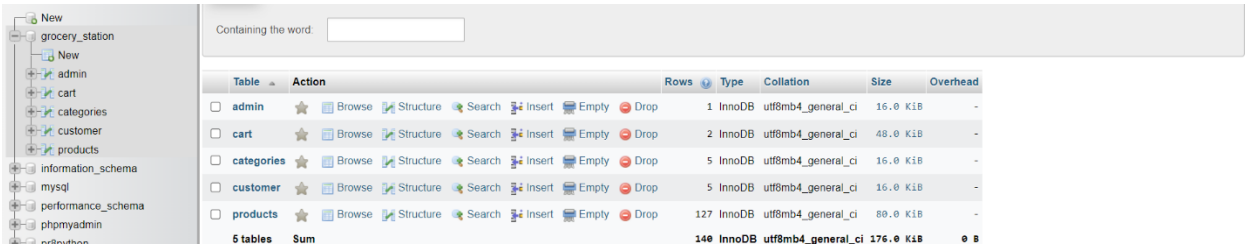

Figure 13 Grocery Station Database

(Above images shows the database of our website that is in phpMyAdmin)

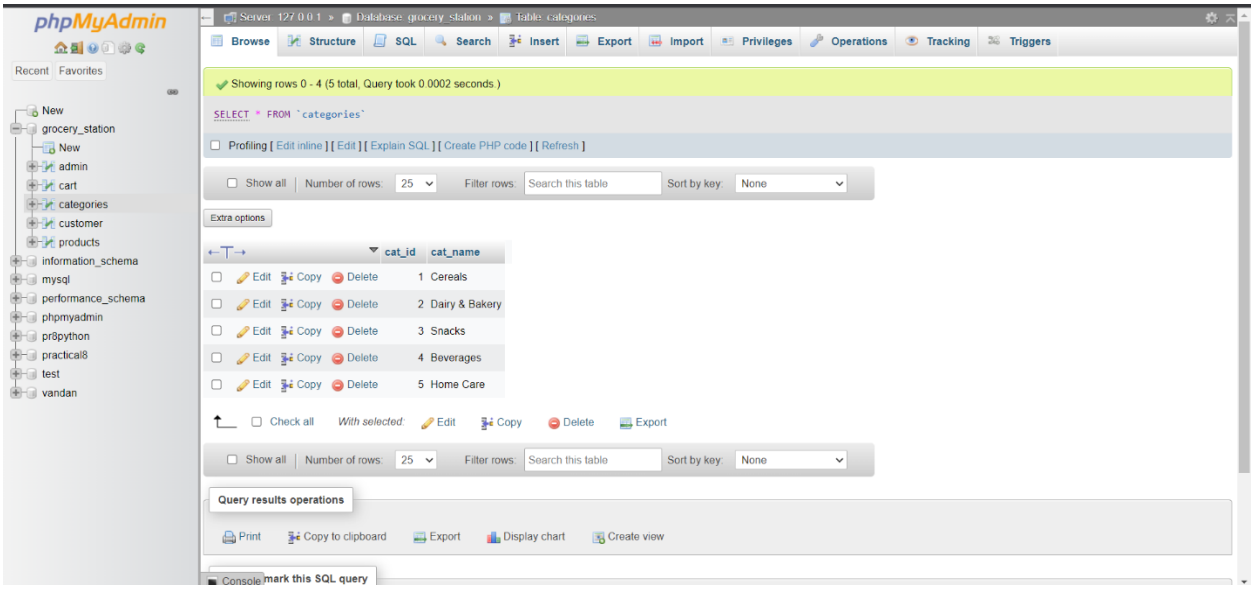

Figure 14 Categories Database

(Above image shows the database of categories)

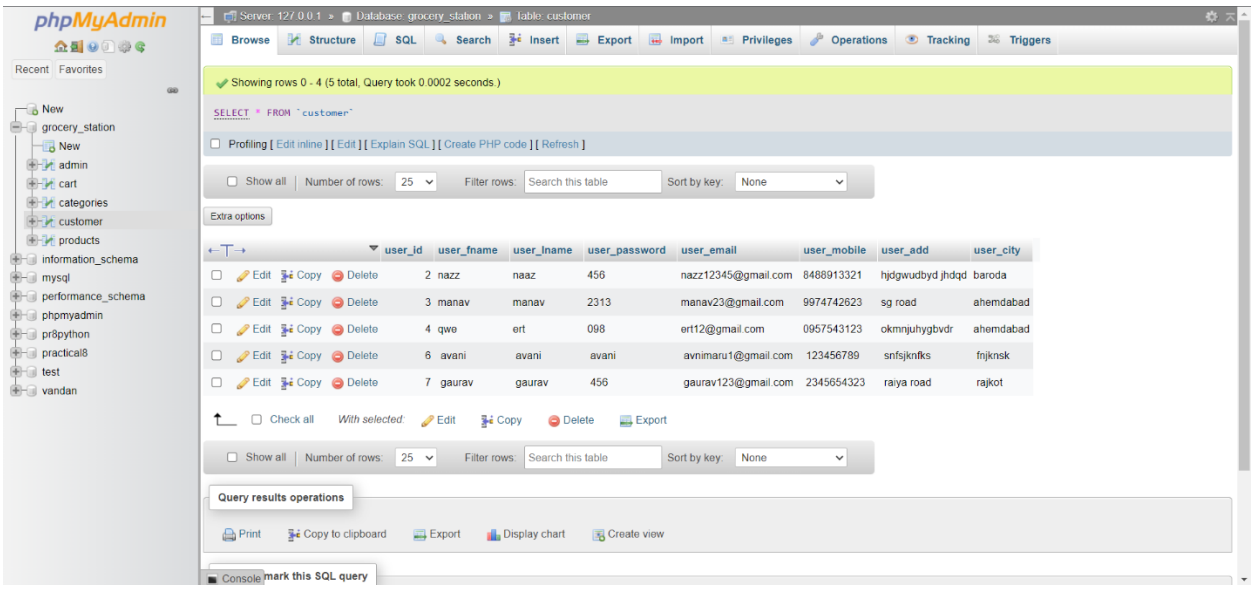

Figure 15 Customers Database

(Above image shows that database of customers)

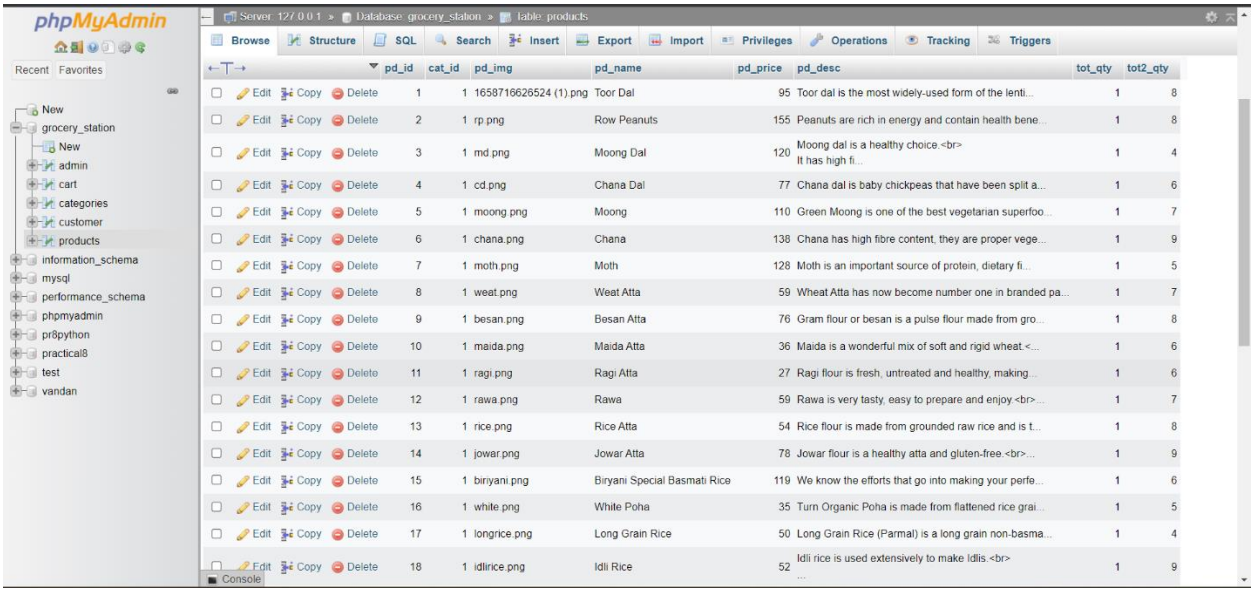

Figure 16 Products Table Database

(Above images shows the database of categories and products in various categories)

CHAPTER 6: FUTURE ENCHANCEMENT

Future Enhancement in Online Grocery Station

- **Personalization**: Online grocery stores can use data analytics and machine learning algorithms to provide personalized product recommendations based on a customer's past purchases and preferences.

- **Augmented Reality:** Augmented Reality (AR) can be integrated into the online grocery store's mobile app, allowing customers to virtually view products in their homes before making a purchase.

- **Same-Day Delivery:** Online grocery stores can offer same-day delivery to customers who need their groceries urgently. This can be accomplished through partnerships with local delivery services or by building their own delivery infrastructure.

- **Automated Reordering:** Online grocery stores can allow customers to set up automated reordering of frequently purchased items, making it easier for customers to keep their pantry stocked.

- **Gamification:** Gamification elements can be added to the online grocery store's app or website to encourage customers to make more purchases. This can include rewards programs, badges, and other incentives.

- **Social Media Integration:** Social media integration can be used to allow customers to share their shopping experiences and reviews with their friends and followers. It can also be used to promote sales and new products to customers.

Optimization of the present code

Minification: Minification is the process of removing unnecessary characters from code, such as white space and comments, to reduce the file size. This can speed up page load times and improve performance.

Caching: Caching involves storing frequently accessed data, such as images and CSS files, in the user's browser or on the server. This can reduce server load and speed up page load times.

Use of CDNs: Content Delivery Networks (CDNs) can be used to serve static files, such as images and CSS files, from servers located closer to the user. This can reduce latency and improve page load times.

Database Optimization: The database used to store product information and customer data can be optimized to improve performance. This can involve indexing tables, optimizing queries, and reducing the number of database requests.

CHAPTER 7: CONCLUSION

In conclusion, the "Online Grocery Management" project is a web-based application that aims to simplify the grocery shopping experience for customers and provide a convenient solution for grocery store owners to manage their business online. The project utilizes HTML, CSS, and PHP programming languages to develop a user-friendly interface for customers to browse and purchase products. The application also includes an admin panel for managing orders, inventory, and user accounts.

CHAPTER 8: BIBLIOGRAPHY

Reference Links

- https://www.geeksforgeeks.org/html/
- https://www.javatpoint.com/css-tutorial
- https://www.php.net/docs.php
- https://www.javatpoint.com/php-tutorial
- https://www.apachefriends.org/
- https://www.javatpoint.com/xampp
- https://www.geeksforgeeks.org/php-tutorials/

Video Links

- https://www.youtube.com/watch?v=PGvrnas2
- https://www.youtube.com/watch?v=1SnPKhCdlsU
- https://www.youtube.com/watch?v=at19OmH2Bg4
- https://www.youtube.com/watch?v=G3e-cpL7ofc

Referred Books

- "PHP and MySQL Web Development" by Luke Welling and Laura Thomson
- "Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5" by Robin Nixon
- "HTML and CSS: Design and Build Websites" by Jon Duckett
- "Learning Web Design: A Beginner's Guide to HTML, CSS, JavaScript, and Web Graphics" by Jennifer Niederst Robbins