

**A
Project Report
On
“Online Grocery Station**

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Under the guidance of
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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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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 will and support of the people around. We hereby avail this opportunity to express our 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)

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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.

Table of Contents

Declaration By Candidate	iv
Acknowledgement	v
Abstract	vi
Table of Contents	vii
Tables of figure	xi
Chapter-1: Introduction	1
1.1 Project Overview	2
1.2 Objective	3
1.3 Scope	4
1.4 Tools & Technology Used	5
Chapter-2: Project Planning	6
2.1 Project Development Approach and Justification	7
Chapter-3: System Requirements	11
3.1 User Characteristics	12
3.2 Hardware and software requirements	13
3.2.1 Hardware Specification	13

3.2.2 Software Specification	13
Chapter-4: System Analysis	14
4.1 Study of Proposes Solution	15
Chapter-5: System Design	16
Figure.1 Main Interface	16
Chapter-6: Future Enhancement	28
Chapter-7: Conclusion	31
Chapter-8: Bibliography	33

List of Figures

2.1 Use case Diagram	8
2.2 Entity Relationship Diagram	9
Figure.1 Main Interface of website	17
Figure.2 Categories Page	18
Figure.3 Home care Product	19
Figure.4 Dairy Product	20
Figure.5 Snack Category	21
Figure.6 Contact Us	22
Figure.7 About Us Page	23
Figure.8 Account Creation Page	24
Figure.9 Grocery Station Database	25
Figure.10 Categories Database	25
Figure.11 Customers Database	26
Figure.12 Products Table Database	27

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

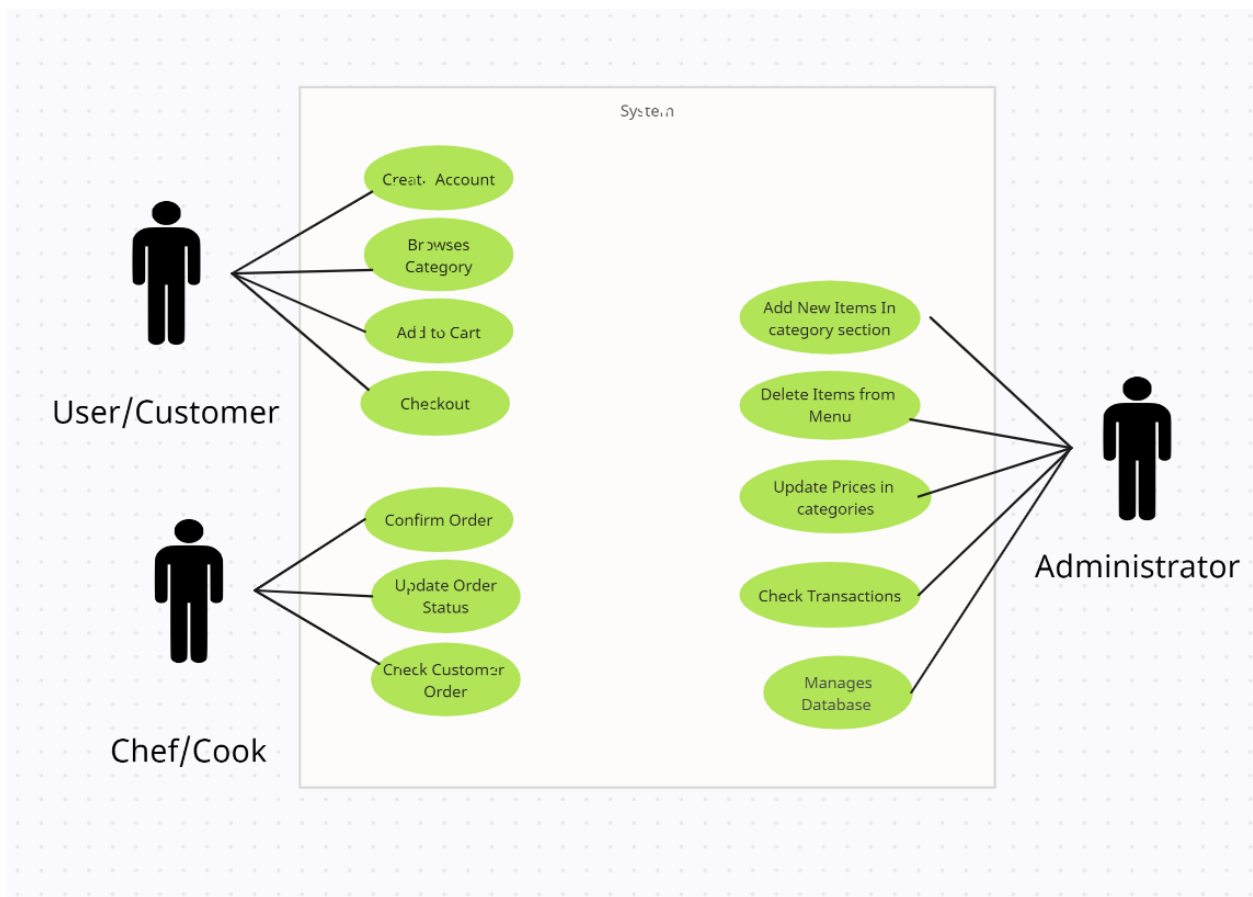


Figure 1 Use Case Diagram

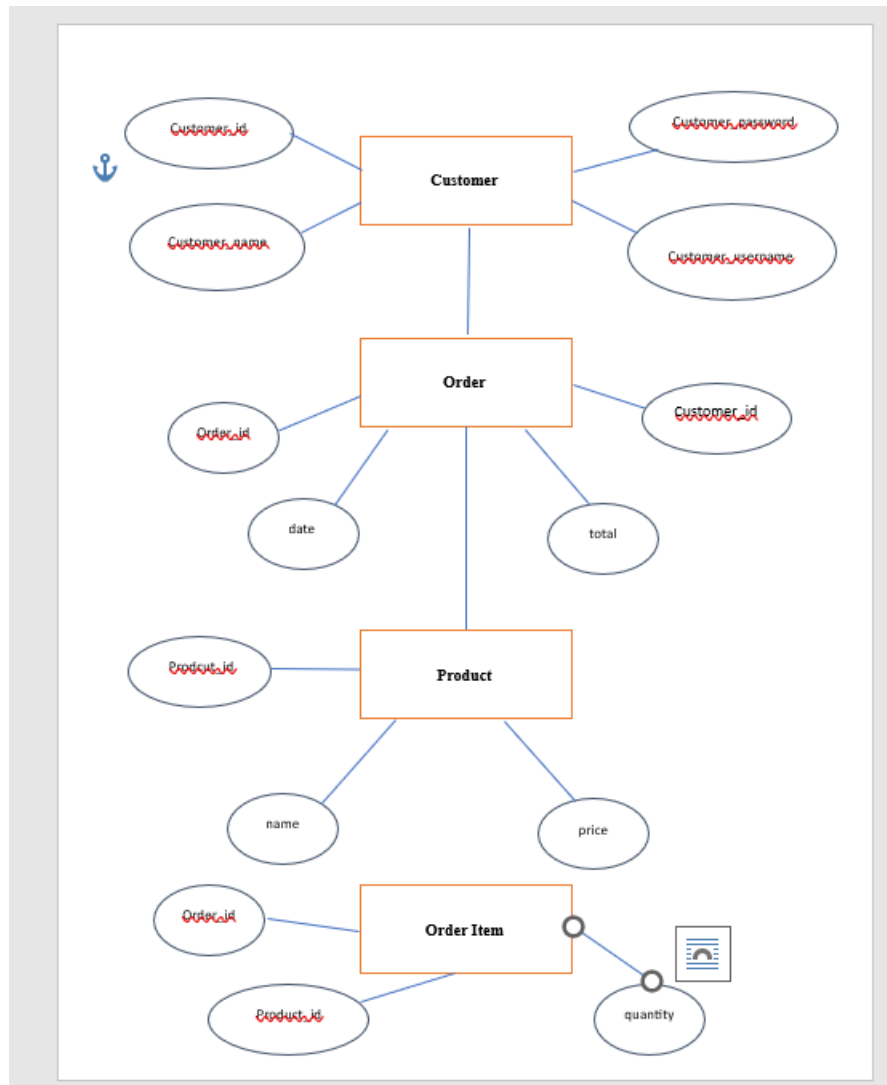


Figure 2 Entity Relationship diagram

(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)

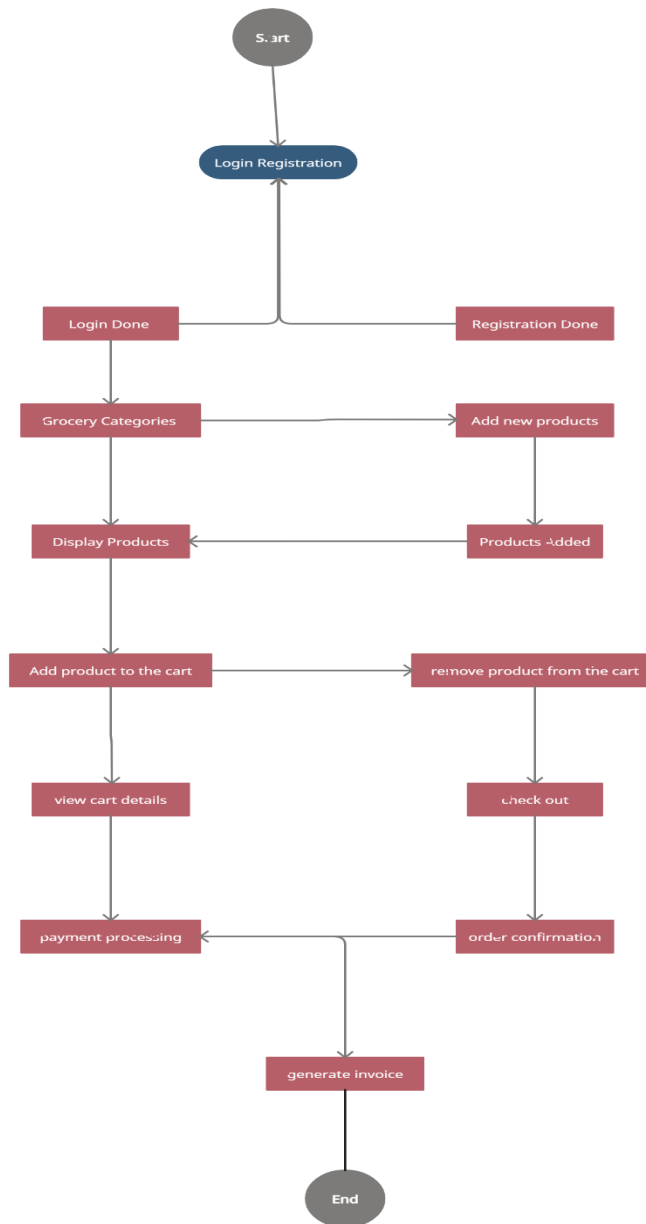


Figure 3 Activity Diagram

(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)

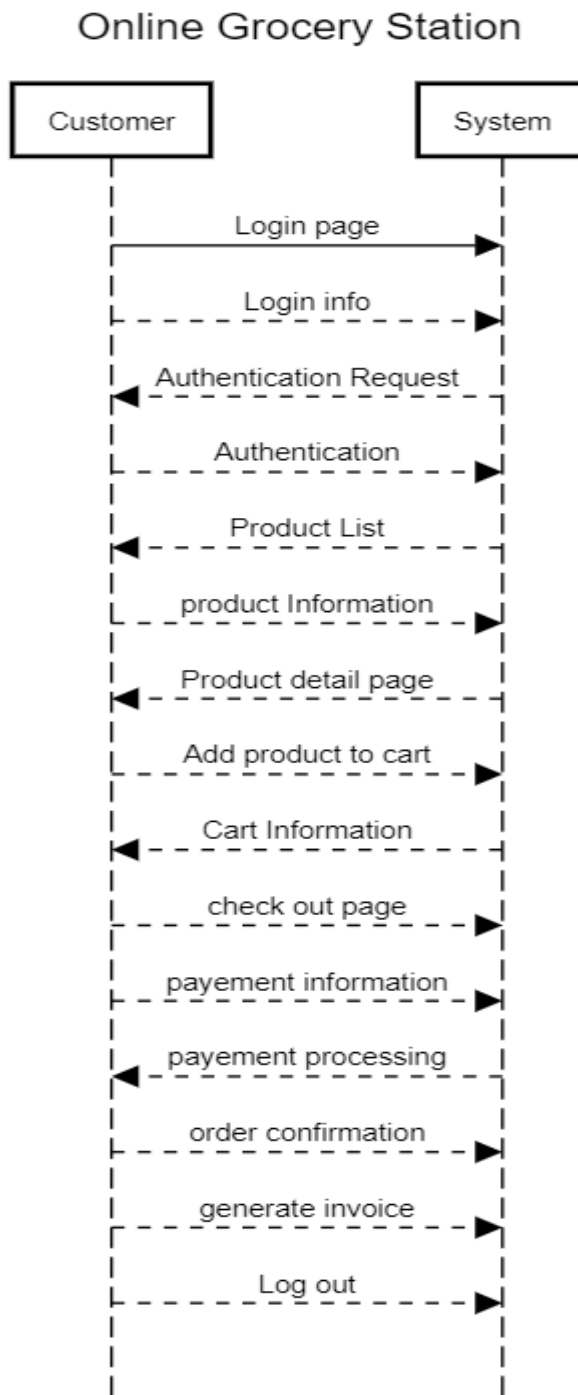


Figure 4 Sequence Diagram

(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

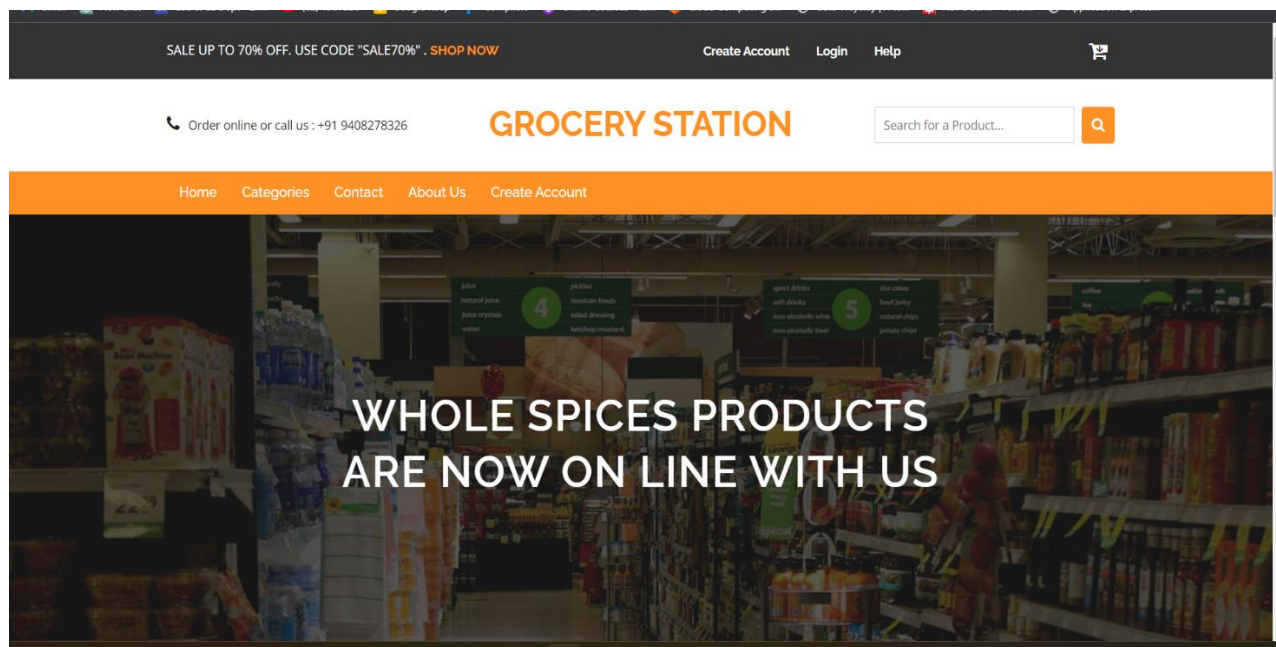


Figure 5 Main Interface of website

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

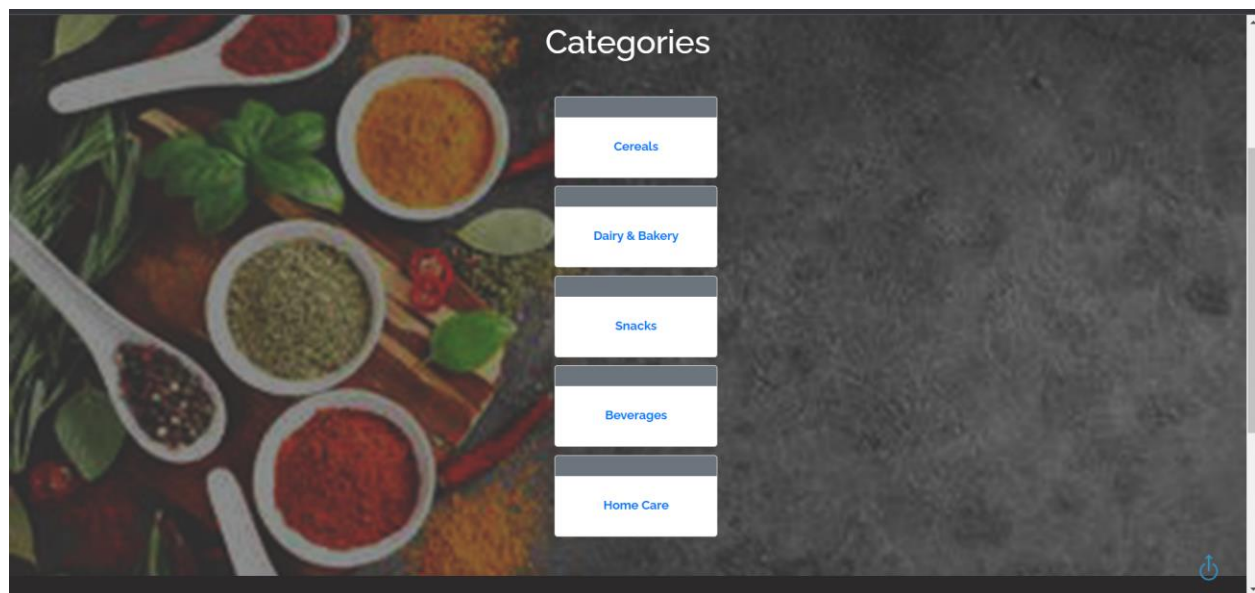


Figure 6 Categories Page

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

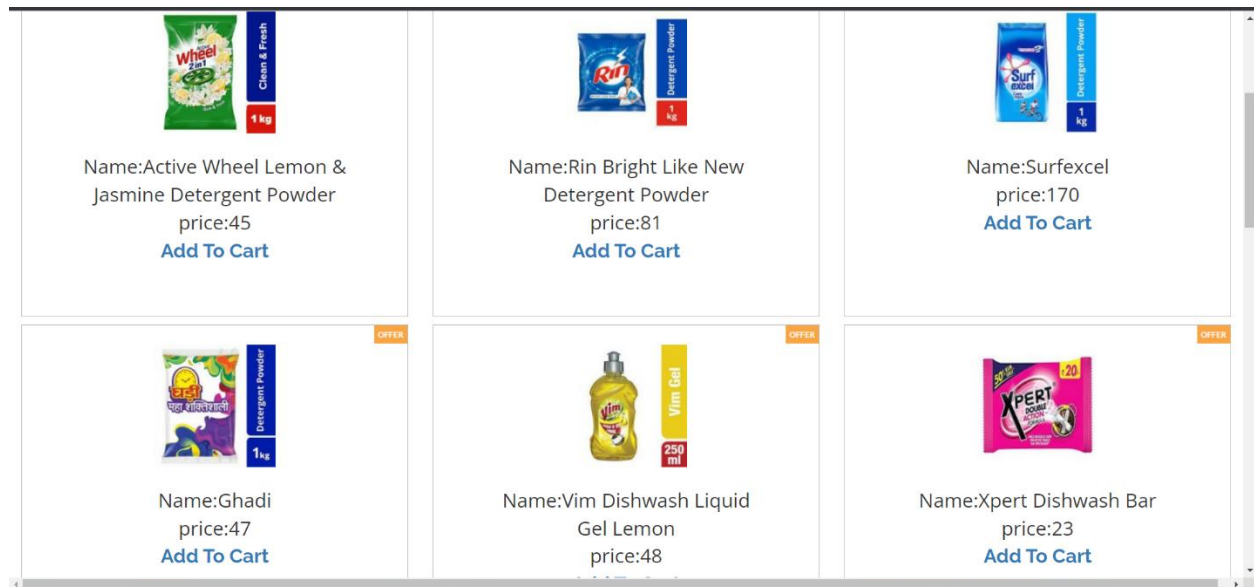


Figure 7 Home Care Product

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

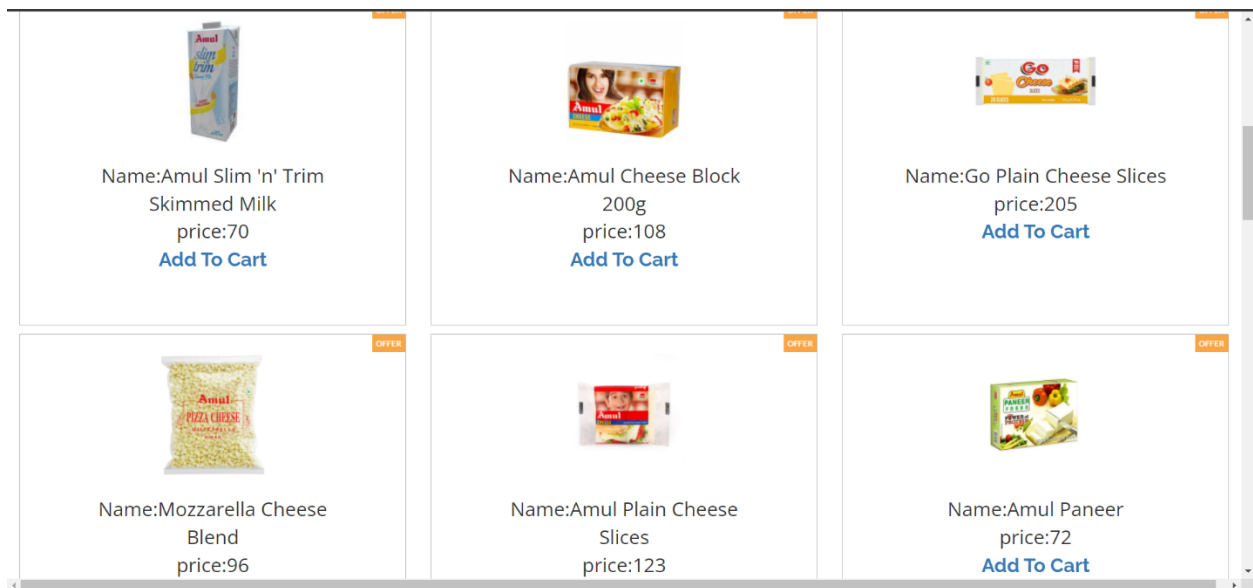


Figure 8 Dairy Product

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

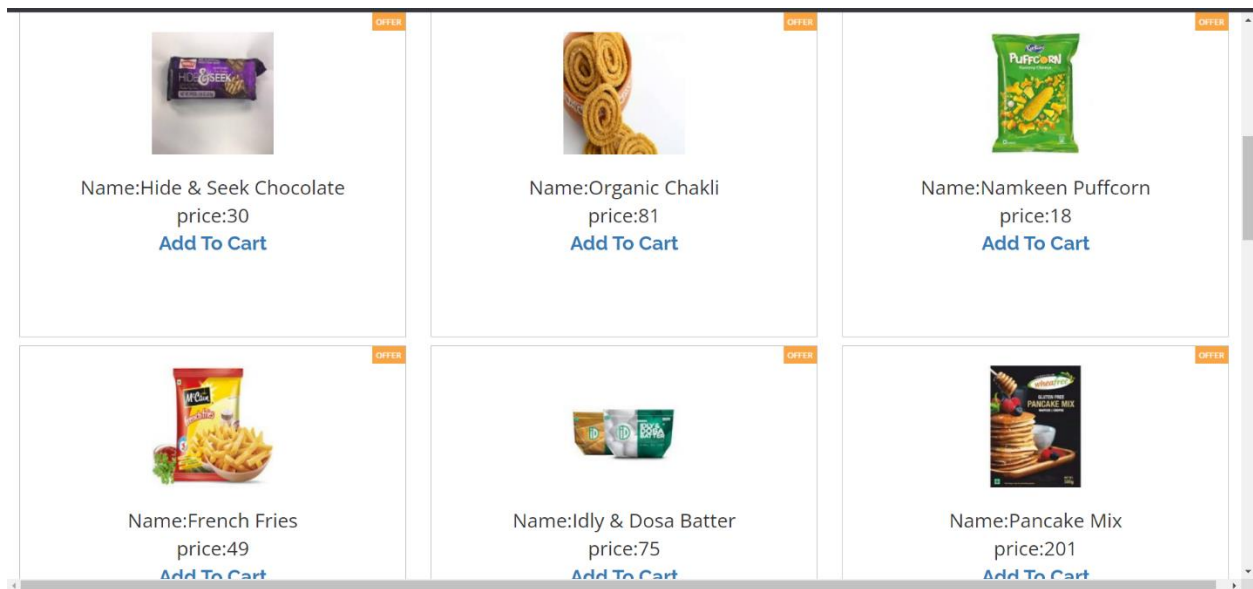



Figure 9 Snack Category

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

Contact Info
19, Eva Park Jamnagar.
✉ grocerystore@gmail.com
☎ +91 9408278326
f  t

LEAVE A MESSAGE

Your Name

Your Email

Your message here...

SUBMIT



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)

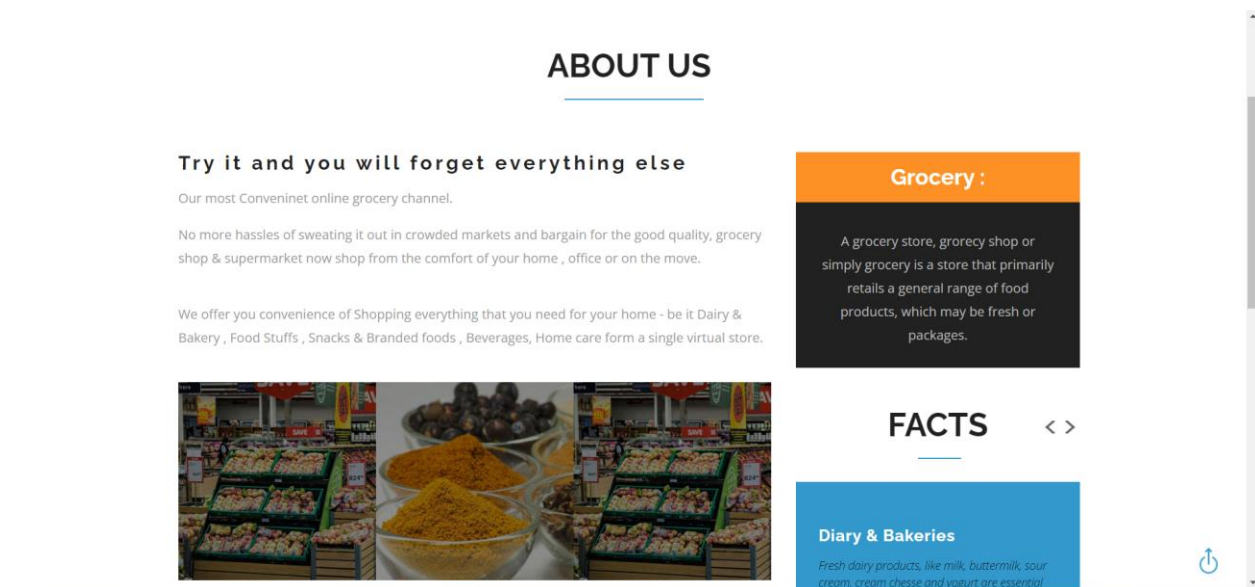
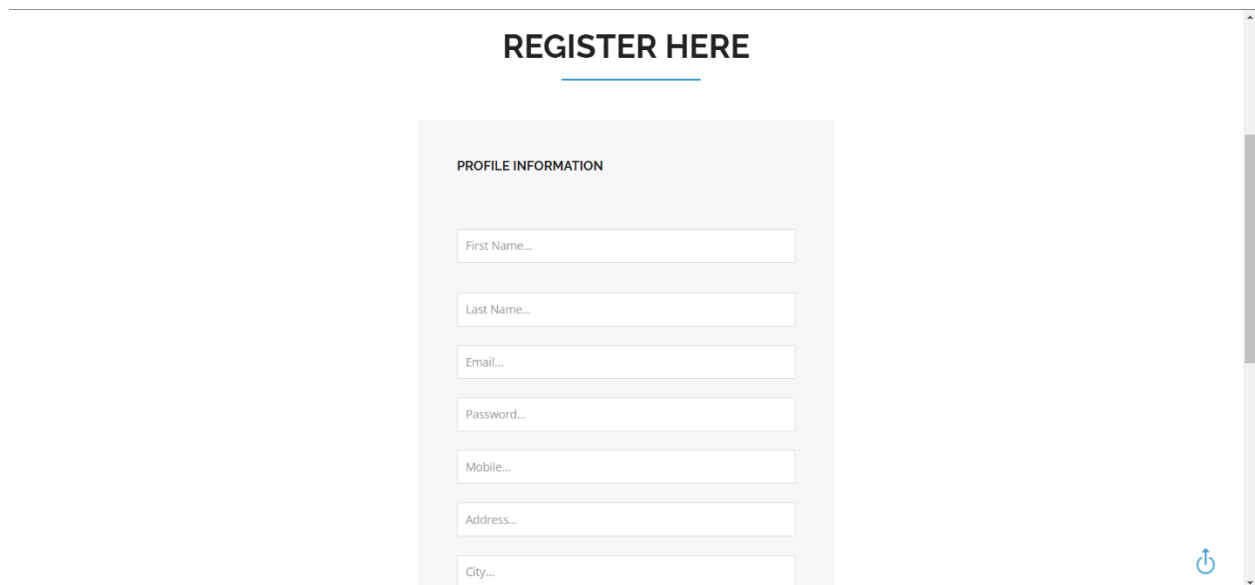


Figure 11 About Us Page

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



REGISTER HERE

PROFILE INFORMATION

First Name...

Last Name...

Email...

Password...

Mobile...

Address...

City...

Share icon

Figure 12 Account Creation Page

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

Table	Action	Rows	Type	Collation	Size	Overhead
<input type="checkbox"/> admin		1	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> cart		2	InnoDB	utf8mb4_general_ci	48.0 KiB	-
<input type="checkbox"/> categories		5	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> customer		5	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> products		127	InnoDB	utf8mb4_general_ci	80.0 KiB	-
5 tables	Sum	140	InnoDB	utf8mb4_general_ci	176.0 KiB	0 B

Figure 13 Grocery Station Database

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

cat_id	cat_name
1	Cereals
2	Dairy & Bakery
3	Snacks
4	Beverages
5	Home Care

Figure 14 Categories Database

(Above image shows the database of categories)

Server: 127.0.0.1 - Database: grocery_station - Table: customer

Showing rows 0 - 4 (5 total. Query took 0.0002 seconds)

SELECT * FROM `customer`

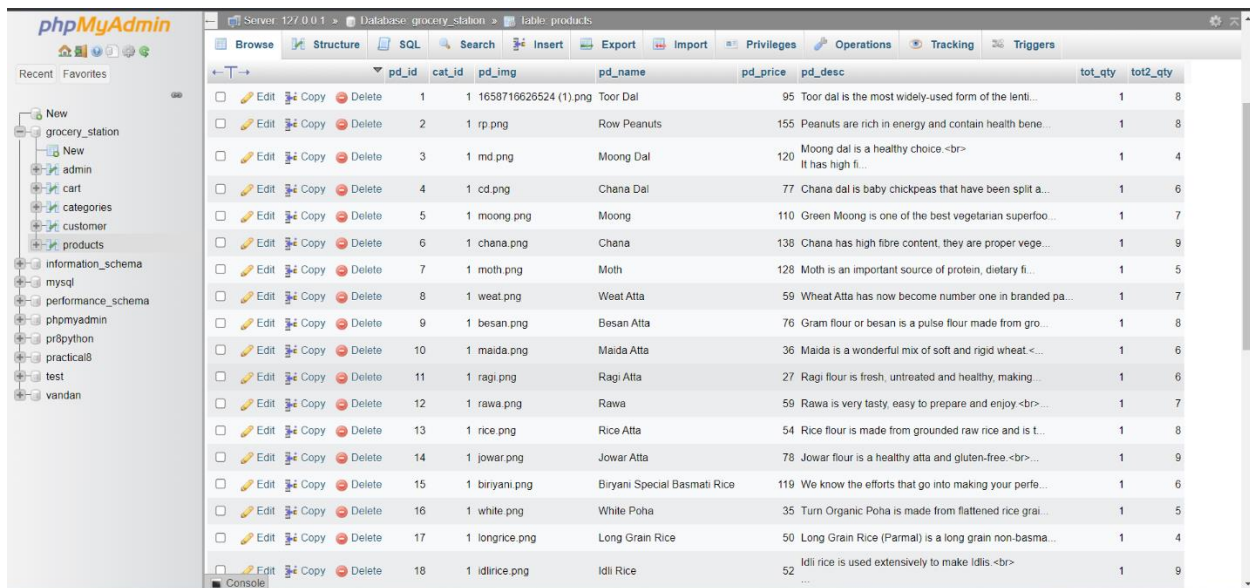
Number of rows: 25 Filter rows: Search this table Sort by key: None

	user_id	user_fname	user_lname	user_password	user_email	user_mobile	user_add	user_city
<input type="checkbox"/> Edit Copy Delete	2	nazz	naaz	456	nazz12345@gmail.com	8488913321	hjdgvudbyd jhdqd	baroda
<input type="checkbox"/> Edit Copy Delete	3	manav	manav	2313	manav23@gmail.com	9974742623	sg road	ahemdabad
<input type="checkbox"/> Edit Copy Delete	4	qwe	ert	098	ert12@gmail.com	0957543123	okmnjuhgybvd	ahemdabad
<input type="checkbox"/> Edit Copy Delete	6	avani	avani	avani	avnimaru1@gmail.com	123456789	snfsjknfks	fnjknsk
<input type="checkbox"/> Edit Copy Delete	7	gaurav	gaurav	456	gaurav123@gmail.com	2345654323	raiya road	rajkot

Query results operations: Print Copy to clipboard Export Display chart Create view

Figure 15 Customers Database

(Above image shows that database of customers)



	pd_id	cat_id	pd_img	pd_name	pd_price	pd_desc	tot_qty	tot2_qty
<input type="checkbox"/> Edit Copy Delete	1	1	1658716628524 (1).png	Toor Dal	95	Toor dal is the most widely-used form of the lenti...	1	8
<input type="checkbox"/> Edit Copy Delete	2	1	rp.png	Row Peanuts	155	Peanuts are rich in energy and contain health bene...	1	8
<input type="checkbox"/> Edit Copy Delete	3	1	md.png	Moong Dal	120	Moong dal is a healthy choice It has high fi...	1	4
<input type="checkbox"/> Edit Copy Delete	4	1	cd.png	Chana Dal	77	Chana dal is baby chickpeas that have been split a...	1	6
<input type="checkbox"/> Edit Copy Delete	5	1	moong.png	Moong	110	Green Moong is one of the best vegetarian superfoo...	1	7
<input type="checkbox"/> Edit Copy Delete	6	1	chana.png	Chana	138	Chana has high fibre content, they are proper vege...	1	9
<input type="checkbox"/> Edit Copy Delete	7	1	moth.png	Moth	128	Moth is an important source of protein, dietary fi...	1	5
<input type="checkbox"/> Edit Copy Delete	8	1	weat.png	Weat Atta	59	Wheat Atta has now become number one in branded pa...	1	7
<input type="checkbox"/> Edit Copy Delete	9	1	besan.png	Besan Atta	76	Gram flour or besan is a pulse flour made from gro...	1	8
<input type="checkbox"/> Edit Copy Delete	10	1	maida.png	Maida Atta	36	Maida is a wonderful mix of soft and rigid wheat <...>	1	6
<input type="checkbox"/> Edit Copy Delete	11	1	ragi.png	Ragi Atta	27	Ragi flour is fresh, untreated and healthy, making...	1	6
<input type="checkbox"/> Edit Copy Delete	12	1	rawa.png	Rawa	59	Rawa is very tasty, easy to prepare and enjoy ...	1	7
<input type="checkbox"/> Edit Copy Delete	13	1	rice.png	Rice Atta	54	Rice flour is made from grounded raw rice and is t...	1	8
<input type="checkbox"/> Edit Copy Delete	14	1	jowar.png	Jowar Atta	78	Jowar flour is a healthy atta and gluten-free ...	1	9
<input type="checkbox"/> Edit Copy Delete	15	1	biryani.png	Biryani Special Basmati Rice	119	We know the efforts that go into making your perfe...	1	6
<input type="checkbox"/> Edit Copy Delete	16	1	white.png	White Poha	35	Turn Organic Poha is made from flattened rice grai...	1	5
<input type="checkbox"/> Edit Copy Delete	17	1	longrice.png	Long Grain Rice	50	Long Grain Rice (Parma) is a long grain non-basma...	1	4
<input type="checkbox"/> Edit Copy Delete	18	1	idli.png	Idli Rice	52	Idli rice is used extensively to make idlis ...	1	9

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](#)