



**MANIPAL  
UNIVERSITY**

# **SHOPHUB : E-COMMERCE MANAGEMENT SYSTEM**

**PROJECT REPORT**

SUBMITTED BY:

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UNDER THE SUPERVISION OF :

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# **INTRODUCTION**

- The E-Commerce Management System is a database-driven web application developed using PHP, MySQL, and Bootstrap.
- It allows administrators to manage products, customers, and orders efficiently.
- The project demonstrates how relational database principles can be applied to real-world e-commerce problems, ensuring data consistency and security.

## **OVERVIEW**

- Understand relational database design concepts.
- Implement CRUD operations in PHP and MySQL.
- Provide admin and customer functionality.
- Design normalized tables to prevent redundancy.
- Demonstrate use of primary and foreign keys.

# **SYSTEM ARCHITECTURE**

The system follows a 3-tier architecture:

1. Presentation Layer (Frontend): HTML, CSS, Bootstrap.
2. Logic Layer (Backend): PHP for business logic.
3. Data Layer (Database): MySQL for storing relational data.

## **DATABASE DESIGN**

The database schema includes the following tables:

- users(id, username, password, role, email, phone, address)
- products(id, name, price, description, stock)
- orders(id, customer\_id, order\_date, total\_amount)
- order\_items(id, order\_id, product\_id, quantity, subtotal)

Each table is linked using foreign key relationships.

# TECH STACK USED

## Tools Used:

- XAMPP - HOSTING/SERVER
- PHP 8, MySQL - BACKEND DEVELOPMENT/LOGIC
- HTML, CSS, Bootstrap 5 - FRONTEND DEVELOPMENT/LOGIC

## Modules:

- Admin Login and Dashboard
- Product Management (Add/View)
- Customer Registration and Login
- Order Placement and Checkout
- View Orders by Admin

# NORMALIZATION

Database normalization ensures efficiency:

- 1NF - Atomic attributes.
- 2NF - Non-key columns fully dependent on primary key.
- 3NF - No transitive dependencies.

## TABLES IN DATABASE:

### --USERS TABLE

id	username	email	phone	address	password	role
2511001	samarraj10	NULL	NULL	NULL	\$2y\$10\$SlzkOAlfZCdbuCwnA.HHgenJV2OKcyApDPCfpc6WiOr...	admin
2511002	abhaydv04	NULL	NULL	NULL	\$2y\$10\$7QVrdYIpEtmXjyaxmdAFsulUdQn7GAVZcFX1q7IUu.P...	customer
2511003	manthan07	manthan07@gmail.com	9876765644	Jagdeo Path	\$2y\$10\$Rr4NYyqnCk2skjetC8SeG.uHjdE1dqH00IzwZefoCGB...	customer
2511004	hustler	hustle@gmail.com	8765432345	Kankarbagh	\$2y\$10\$aauzt2f6nVWLoy7i6dbUYu0SOIPBgNFojQngCK9U7xs...	admin
2511005	harshraj	harsh@gmail.com	9876453476	Gola Road	\$2y\$10\$cJkQrjPJsSL8XsN7wi2WuqPanzX5qo95.KwA2nS3wf...	customer
2511006	anshkr	ansh@gmail.com	9876156709	Purnea	\$2y\$10\$tvYVs4T0w1DzV18nQPn/IOEqWp943XPluIRYniF.iL5...	customer
2511007	kalyanipd	kalyani@gmail.com	6754321235	MGM Street	\$2y\$10\$uozQerzb8EbLh.Us/dOBSeECgYZdHSYOm.7Pn9cONaw...	customer
2511008	vijayth	vijay@gmail.com	8976543209	Church Road	\$2y\$10\$LgkqaOYexdrlEmXXBotLTultwqdwJ6H1IGWrNGr8Zh...	customer
2511009	akshatkr	akshat@gmail.com	7865432345	Purnea Railway Station	\$2y\$10\$mTGG3RdPobZ8JjSeljwAlexAbN8cK/KWZQp3hmFcYT...	customer
2511010	anitk	animendra@gmail.com	6543568901	Bhilai Chauraha	\$2y\$10\$mTGG3RdPobZ8JjSeljwAlexAbN8cK/KWZQp3hmFcYT...	customer

### --PRODUCTS TABLE

id	name	description	price	stock	created_at
1	Water Bottle	BLACK COLOURED 1000ML STEEL WATER BOTTLE	600.00	9	2025-11-08 19:39:29
2	PINTOLA OATS	HIGH PROTEIN PINTOLA OATS 1000G 25G PROTEIN	999.00	9	2025-11-08 23:25:26
3	MILK	AMUL TAAZA 200ML TONED MILK	17.00	10	2025-11-10 02:06:28
4	AIRPODS	BOAT BOLD BLACK AIRPODS LOW LATENCY 42HRS BATTERY ...	999.00	10	2025-11-10 02:10:36
5	LAPTOP	HP VICTUS AMD RYZEN 5 NVIDIA GEFORCE RTX 5000 SERI...	60599.00	10	2025-11-10 02:12:46
6	WATCH	CASIO VINTAGE DIGITAL DIAL ROSE GOLD	4495.00	9	2025-11-10 02:14:36
7	LEATHER JACKET	LEATHER RETAIL LEATHER JACKET FOR MEN	2089.00	9	2025-11-10 02:16:07
8	COMIC BOOK	THE MONK WHO SOLD HIS FERRARI BY ROBIN SHARMA	199.00	10	2025-11-10 02:18:21
9	KETTLE	PRESTIGE 1L WATER KETTLE	599.00	10	2025-11-10 02:19:26
10	SNICKERS	ASIAN WHITE SNICKERS	799.00	10	2025-11-10 02:20:18
11	SNICKERS	ASIAN WHITE SNICKERS	799.00	10	2025-11-10 02:20:29

## --ORDERS TABLE

id	customer_id	order_date
2	2511002	2025-11-08 21:51:40
3	2511003	2025-11-10 02:59:50

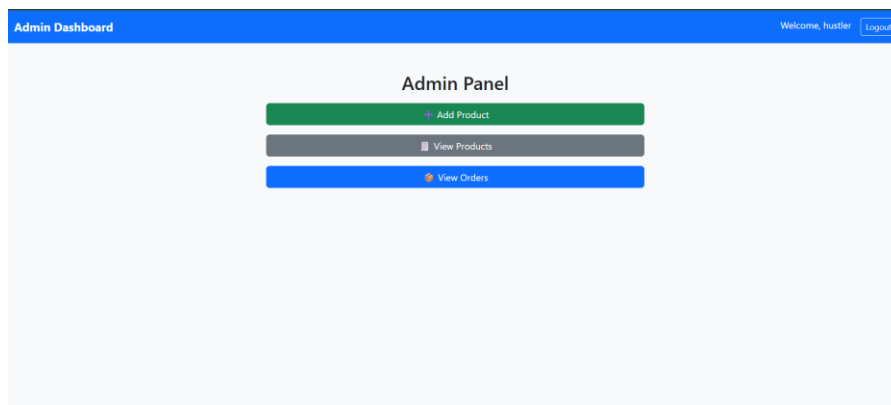
## --ORDER\_ITEMS TABLE

id	order_id	product_id	quantity
1	2	1	1
2	3	2	1
3	3	7	1
4	3	6	1

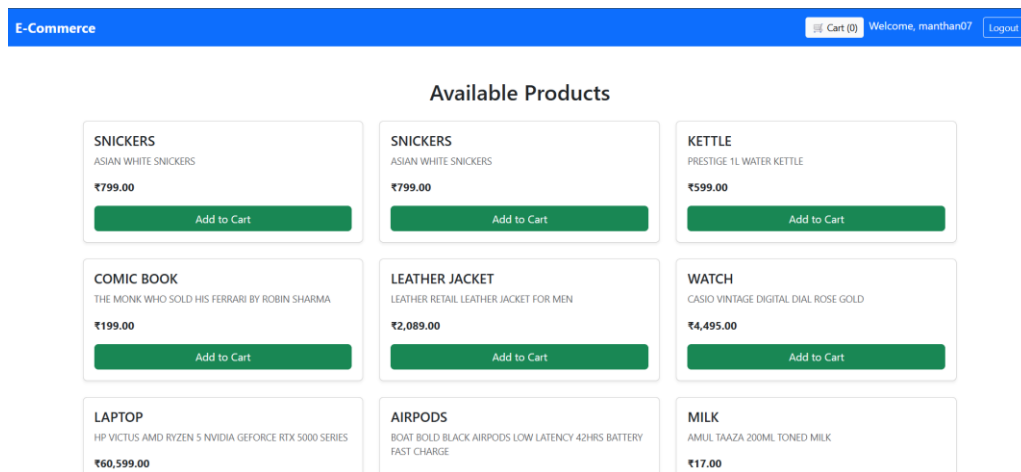
# FRONTEND DESIGN

- Bootstrap was used to design a responsive, clean UI.
- The admin panel features gradient themes, modern buttons, and consistent typography.
- Forms and tables are structured using Bootstrap's grid layout for clarity and accessibility.

## --ADMIN DASHBOARD



## --CUSTOMER DASHBOARD



## CONCLUSION

The E-Commerce RDBMS project demonstrates an efficient way to connect front-end design with a normalized MySQL database.

It emphasizes CRUD operations, data integrity, and user interaction.

The project successfully integrates all major components of a real-world e-commerce management system.

# FUTURE WORK

- Add product images and categories.
- Integrate a payment gateway.
- Implement analytics dashboard for sales.
- Deploy the system on a live web server.
- Enhance with REST APIs for mobile ap