ECOMMERCE DATABASE MANAGEMENT SYSTEM

PROJECT REPORT Submitted by

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with specialization in Computer Science and Engineering



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BONAFIDE CERTIFICATE

Certified that this lab report "Ecommerce Database Management System" is the bonafide work done by GOWTHAM P(RA2111003010993). Who carried out the lab exercises under my Supervision. Certified further, that to the best of my knowledge the work reported here in doesnot form part of any other work.

LAB INCHARGE

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Lastly, we would also like to thank our friends who helped us a lot in finishing this project within the limited time. We are making this project not only for marks but to also increase our knowledge.

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1. INTRODUCTION

In today's digital era, the landscape of retail and commerce has undergone a significant transformation with the widespread adoption of online shopping platforms. With the convenience of browsing and purchasing products from the comfort of one's home, online shopping has become increasingly popular among consumers worldwide. However, behind the seamless user experience lies a robust and efficient database management system that powers the entire online shopping ecosystem.

The purpose of this project is to design and develop an online shopping database management system (DBMS) that streamlines various aspects of the online shopping process, from product browsing to order fulfillment. The system aims to provide a user-friendly interface for both customers and administrators while ensuring data integrity, security, and scalability.

Objectives:

- 1. Efficient Data Management: Implement a well-structured database schema to efficiently store and manage product information, user profiles, order details, and other relevant data.
- 2. User-Friendly Interface: Design an intuitive user interface that enables customers to easily browse products, add them to the cart, and complete the checkout process with minimal friction.
- 3. Order Processing Automation: Develop automated workflows for order processing, including inventory management, payment processing, and order fulfillment, to streamline the entire purchase cycle.
- 4. Personalization and Recommendation: Incorporate features for personalized recommendations based on user preferences, purchase history, and browsing behavior to enhance the shopping experience.
- 5. Security and Data Privacy: Implement robust security measures to protect user data, prevent unauthorized access, and ensure compliance with data privacy regulations such as GDPR and CCPA.

Importance:

A well-designed online shopping DBMS is crucial for the success of any e-commerce business. It serves as the backbone of the entire operation, facilitating smooth interactions between customers, products, and the underlying infrastructure. By centralizing and organizing data effectively, the system enables businesses to make informed decisions, improve customer satisfaction, and drive revenue growth.

Scope of the Project:

This project will focus on developing the core functionalities of the online shopping DBMS, including user authentication, product catalog management, shopping cart handling, order processing, and administrative tools for managing inventory and user accounts. While the project will provide a solid foundation for an end-to-end online shopping platform, certain advanced features such as machine learning-based recommendation systems and real-time analytics may be considered for future enhancements.

2. Project Features and Objectives:

Project Features:

- 1. Scalability: The project is designed to be scalable, capable of handling increased workload and user base without compromising performance.
- 2. Modularity: It is built with a modular architecture, allowing for easy integration of new features and functionalities.
- 3. User-Friendly Interface: The project prioritizes a user-friendly interface to enhance user experience and accessibility.
- 4. Security: Robust security measures are implemented to safeguard sensitive data and protect against potential threats.
- 5. Cross-Platform Compatibility: The project is compatible across multiple platforms, ensuring accessibility from various devices.

- 6. Real-Time Updates: Users can receive real-time updates and notifications to stay informed about relevant changes and events.
- 7. Customization: The project offers customization options to tailor the user experience according to individual preferences.
- 8. Data Analytics: Advanced data analytics capabilities enable the extraction of valuable insights from collected data.

Project Objectives:

- 1. Addressing Specific Needs: The project aims to address specific needs or challenges within its target domain or industry.
- 2. Improving Efficiency: By streamlining processes and workflows, the project seeks to enhance operational efficiency and productivity.
- 3. Enhancing User Experience: Prioritizing user experience, the project aims to provide a seamless and enjoyable interaction for its users.
- 4. Driving Innovation: Through innovative features and technologies, the project aims to push the boundaries of what is possible within its domain.
- 5. Meeting Regulatory Requirements: Compliance with relevant regulations and standards is a key objective to ensure legality and trustworthiness.
- 6. **Achieving Business Goals:** Ultimately, the project aims to contribute to the achievement of broader business goals, such as revenue growth or market expansion.
- 7. Creating Value: Whether through cost savings, revenue generation, or other means, the project seeks to create tangible value for stakeholders.
- 8. Sustainability: Considerations for sustainability and environmental impact may be integrated into the project's objectives, reflecting a commitment to responsible practices.

3. Back End Design ,Front End Design and Connectivity:

1. Back-End Design with PHP:

- Architecture PHP can be used in various architectural patterns like MVC (Model-View-Controller) or RESTful APIs depending on the project requirements.
- Database Integration: PHP can interact with databases such as MySQL, PostgreSQL, or MongoDB using database-specific extensions or ORM (Object-Relational Mapping) libraries like Doctrine.
- Server-Side Logic: PHP handles server-side logic, including user authentication, authorization, and data processing, often through frameworks like Laravel, Symfony, or CodeIgniter.
- API Development: PHP can be used to develop RESTful APIs using frameworks like Slim or Lumen, enabling communication with the front end and other services.
- Scalability: PHP applications can scale horizontally by deploying multiple server instances behind a load balancer, ensuring high availability and performance under heavy loads.

2. Front-End Design with PHP:

- Integration with PHP Templating: PHP can generate dynamic HTML content by embedding PHP code within HTML templates, allowing for server-side rendering of dynamic web pages.
- JavaScript Integration: PHP can work seamlessly with JavaScript frameworks like React.js or Vue.js to create interactive front-end components and enhance user experience.
- Responsive Design: Front-end design in PHP includes responsive CSS frameworks like Bootstrap or Foundation to ensure optimal display across various devices and screen sizes.
- AJAX Requests: JavaScript can make AJAX requests to PHP scripts to fetch data asynchronously, enabling dynamic content updates without page refreshes.

- Form Handling: PHP processes form submissions from the front end, validating input data, and interacting with the back end to store or retrieve information from the database.

3. Connectivity with PHP:

- API Development: PHP can serve as the backend for RESTful APIs, handling HTTP requests from the front end and responding with JSON or XML data.
- Session Management: PHP manages user sessions, storing session data on the server-side or using cookies to maintain user authentication state.
- Third-Party Integrations: PHP integrates with external services and APIs using libraries like Guzzle or cURL, enabling functionalities such as payment processing, social media integration, or data synchronization.
- Security Measures: PHP implements security measures like input validation, output sanitization, and encryption to protect against common web vulnerabilities like SQL injection, XSS (Cross-Site Scripting), and CSRF (Cross-Site Request Forgery).

4. Output:

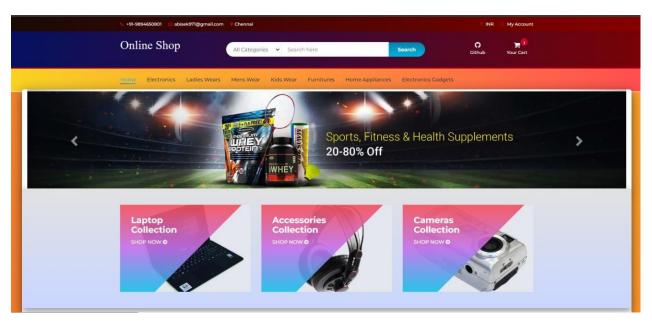


Figure 1 home page

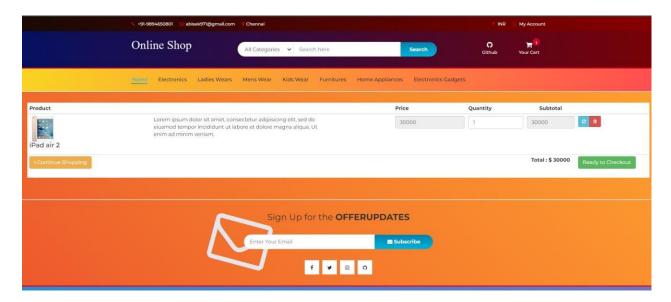


Figure 2 cart.

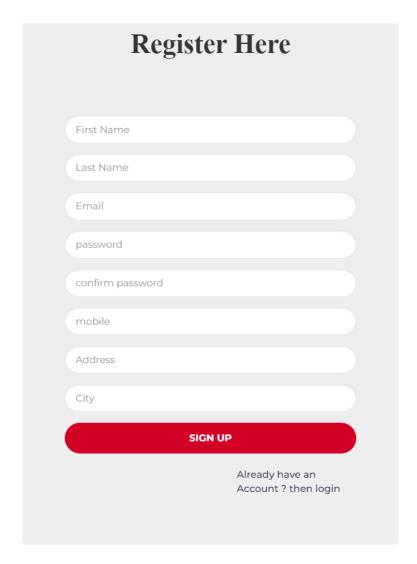


Figure 3 Register page.

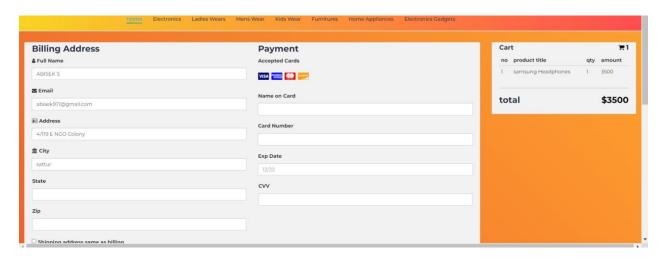


Figure 4 Billing page.

5. Codes:

```
SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";
SET AUTOCOMMIT = 0;
START TRANSACTION;
SET time zone = "+00:00";
DELIMITER $$
FROM categories WHERE cat id=cid$$
DELIMITER ;
CREATE TABLE `admin_info` (
 `admin id` int(10) NOT NULL,
 `admin name` varchar(100) NOT NULL,
 `admin_email` varchar(300) NOT NULL,
 `admin password` varchar(300) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
INSERT INTO `admin_info` (`admin_id`, `admin_name`, `admin_email`,
`admin_password`) VALUES
(1, 'admin', 'admin@gmail.com', '25f9e794323b453885f5181f1b624d0b');
CREATE TABLE `brands` (
  `brand_id` int(100) NOT NULL,
 `brand title` text NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
INSERT INTO `brands` (`brand_id`, `brand_title`) VALUES
(1, 'HP'),
(2, 'Samsung'),
(3, 'Apple'),
(4, 'motorolla'),
(5, 'LG'),
(6, 'Cloth Brand');
CREATE TABLE `cart` (
 `id` int(10) NOT NULL,
 `p_id` int(10) NOT NULL,
 `ip_add` varchar(250) NOT NULL,
 `user_id` int(10) DEFAULT NULL,
 `qty` int(10) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
INSERT INTO `cart` (`id`, `p_id`, `ip_add`, `user_id`, `qty`) VALUES
(6, 26, '::1', 4, 1),
(9, 10, '::1', 7, 1),
(10, 11, '::1', 7, 1),
(11, 45, '::1', 7, 1),
(44, 5, :::1', 3, 0),
(46, 2, '::1', 3, 0),
(48, 72, '::1', 3, 0),
(49, 60, '::1', 8, 1),
(50, 61, '::1', 8, 1),
(51, 1, '::1', 8, 1),
(52, 5, '::1', 9, 1),
(53, 2, '::1', 14, 1),
(54, 3, '::1', 14, 1),
(55, 5, '::1', 14, 1),
(56, 1, '::1', 9, 1),
(57, 2, '::1', 9, 1),
(71, 61, '127.0.0.1', -1, 1);
CREATE TABLE `categories` (
 `cat_id` int(100) NOT NULL,
 `cat_title` text NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
INSERT INTO `categories` (`cat_id`, `cat_title`) VALUES
(1, 'Electronics'),
(2, 'Ladies Wears'),
(3, 'Mens Wear'),
(4, 'Kids Wear'),
(5, 'Furnitures'),
(6, 'Home Appliances'),
(7, 'Electronics Gadgets');
```

```
CREATE TABLE `email_info` (
 `email_id` int(100) NOT NULL,
 `email` text NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
INSERT INTO `email_info` (`email_id`, `email`) VALUES
(3, 'admin@gmail.com'),
(4, 'puneethreddy951@gmail.com'),
(5, 'puneethreddy@gmail.com');
CREATE TABLE `logs` (
 `id` int(11) NOT NULL,
 `user_id` varchar(50) NOT NULL,
 `action` varchar(50) NOT NULL,
 `date` datetime NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
CREATE TABLE `orders` (
  `order_id` int(11) NOT NULL,
 `user_id` int(11) NOT NULL,
 `product_id` int(11) NOT NULL,
 `qty` int(11) NOT NULL,
 `trx id` varchar(255) NOT NULL,
```

```
p status` varchar(20) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
INSERT INTO `orders` (`order_id`, `user_id`, `product_id`, `qty`, `trx_id`,
`p_status`) VALUES
(1, 12, 7, 1, '07M47684BS5725041', 'Completed'),
(2, 14, 2, 1, '07M47684BS5725041', 'Completed');
CREATE TABLE `orders info` (
  `order_id` int(10) NOT NULL,
 `user id` int(11) NOT NULL,
 `f name` varchar(255) NOT NULL,
 `email` varchar(255) NOT NULL,
 `address` varchar(255) NOT NULL,
 `city` varchar(255) NOT NULL,
  `state` varchar(255) NOT NULL,
 `zip` int(10) NOT NULL,
  `cardname` varchar(255) NOT NULL,
 `cardnumber` varchar(20) NOT NULL,
 `expdate` varchar(255) NOT NULL,
  `prod count` int(15) DEFAULT NULL,
 `total amt` int(15) DEFAULT NULL,
  `cvv` int(5) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
INSERT INTO `orders_info` (`order_id`, `user_id`, `f_name`, `email`, `address`,
`city`, `state`, `zip`, `cardname`, `cardnumber`, `expdate`, `prod_count`,
`total_amt`, `cvv`) VALUES
(1, 12, 'Puneeth', 'puneethreddy951@gmail.com', 'Bangalore, Kumbalagodu,
Karnataka', 'Bangalore', 'Karnataka', 560074, 'pokjhgfcxc', '4321 2345 6788
7654', '12/90', 3, 77000, 1234);
```

```
CREATE TABLE `order_products` (
  `order_pro_id` int(10) NOT NULL,
 `order_id` int(11) NOT NULL,
 `product_id` int(11) NOT NULL,
 `qty` int(15) DEFAULT NULL,
 `amt` int(15) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
INSERT INTO `order_products` (`order_pro_id`, `order_id`, `product_id`, `qty`,
`amt`) VALUES
(73, 1, 1, 1, 5000),
(74, 1, 4, 2, 64000),
(75, 1, 8, 1, 40000);
CREATE TABLE `products` (
  `product_id` int(100) NOT NULL,
  `product_cat` int(100) NOT NULL,
  `product_brand` int(100) NOT NULL,
 `product_title` varchar(255) NOT NULL,
  `product_price` int(100) NOT NULL,
  `product_desc` text NOT NULL,
 `product_image` text NOT NULL,
 `product keywords` text NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
INSERT INTO `products` (`product id`, `product cat`, `product brand`,
product_title`, `product_price`, `product_desc`, `product_image`,
`product keywords`) VALUES
(1, 1, 2, 'Samsung galaxy s7 edge', 5000, 'Samsung galaxy s7 edge',
'product07.png', 'samsung mobile electronics'),
(2, 1, 3, 'iPhone 5s', 25000, 'iphone 5s', 'http pluspng.com img-png iphone-hd-
png-iphone-apple-png-file-550.png', 'mobile iphone apple'),
(3, 1, 3, 'iPad air 2', 30000, 'ipad apple brand',
'da4371ffa192a115f922b1c0dff88193.png', 'apple ipad tablet'),
(4, 1, 3, 'iPhone 6s', 32000, 'Apple iPhone ', 'http_pluspng.com_img-
png iphone-6s-png-iphone-6s-gold-64gb-1000.png', 'iphone apple mobile'),
(5, 1, 2, 'iPad 2', 10000, 'samsung ipad', 'iPad-air.png', 'ipad tablet
samsung'),
(6, 1, 1, 'samsung Laptop r series', 35000, 'samsung Black combination Laptop',
'laptop_PNG5939.png', 'samsung laptop '),
(7, 1, 1, 'Laptop Pavillion', 50000, 'Laptop Hp Pavillion', 'laptop PNG5930.png',
'Laptop Hp Pavillion'),
(8, 1, 4, 'Sony', 40000, 'Sony Mobile', '530201353846AM_635_sony_xperia_z.png',
'sony mobile'),
(9, 1, 3, 'iPhone New', 12000, 'iphone', 'iphone-hd-png-iphone-apple-png-file-
550.png', 'iphone apple mobile'),
(10, 2, 6, 'Red Ladies dress', 1000, 'red dress for girls', 'red dress.jpg', 'red
dress '),
(11, 2, 6, 'Blue Heave dress', 1200, 'Blue dress', 'images.jpg', 'blue dress'
cloths'),
(12, 2, 6, 'Ladies Casual Cloths', 1500, 'ladies casual summer two colors
pleted', '7475-ladies-casual-dresses-summer-two-colors-pleated.jpg', 'girl dress
cloths casual'),
(13, 2, 6, 'SpringAutumnDress', 1200, 'girls dress', 'Spring-Autumn-Winter-Young-
Ladies-Casual-Wool-Dress-Women-s-One-Piece-Dresse-Dating-Clothes-
Medium.jpg_640x640.jpg', 'girl dress'),
(14, 2, 6, 'Casual Dress', 1400, 'girl dress', 'download.jpg', 'ladies cloths
girl'),
(15, 2, 6, 'Formal Look', 1500, 'girl dress', 'shutterstock_203611819.jpg',
'ladies wears dress girl'),
(16, 3, 6, 'Sweter for men', 600, '2012-Winter-Sweater-for-Men-for-better-
outlook', '2012-Winter-Sweater-for-Men-for-better-outlook.jpg', 'black sweter
cloth winter'),
(17, 3, 6, 'Gents formal', 1000, 'gents formal look', 'gents-formal-250x250.jpg',
'gents wear cloths'),
(19, 3, 6, 'Formal Coat', 3000, 'ad', 'images (1).jpg', 'coat blazer gents'),
(20, 3, 6, 'Mens Sweeter', 1600, 'jg', 'Winter-fashion-men-burst-sweater.png',
'sweeter gents '),
(21, 3, 6, 'T shirt', 800, 'ssds', 'IN-Mens-Apparel-Voodoo-Tiles-
09. V333872612 .jpg', 'formal t shirt black'),
```

```
(22, 4, 6, 'Yellow T shirt ', 1300, 'yello t shirt with pant', '1.0x0.jpg', 'kids
yellow t shirt'),
(23, 4, 6, 'Girls cloths', 1900, 'sadsf', 'GirlsClothing Widgets.jpg', 'formal
kids wear dress'),
(24, 4, 6, 'Blue T shirt', 700, 'g', 'images.jpg', 'kids dress'),
(25, 4, 6, 'Yellow girls dress', 750, 'as', 'images (3).jpg', 'yellow kids
dress'),
(27, 4, 6, 'Formal look', 690, 'sd', 'image28.jpg', 'formal kids dress'),
(32, 5, 0, 'Book Shelf', 2500, 'book shelf', 'furniture-book-shelf-250x250.jpg',
'book shelf furniture'),
(33, 6, 2, 'Refrigerator', 35000, 'Refrigerator', 'CT WM BTS-BTC-
AppliancesHome_20150723.jpg', 'refrigerator samsung'),
(34, 6, 4, 'Emergency Light', 1000, 'Emergency Light', 'emergency light.JPG',
'emergency light'),
(35, 6, 0, 'Vaccum Cleaner', 6000, 'Vaccum Cleaner', 'images (2).jpg', 'Vaccum
Cleaner'),
(36, 6, 5, 'Iron', 1500, 'gj', 'iron.JPG', 'iron'),
(37, 6, 5, 'LED TV', 20000, 'LED TV', 'images (4).jpg', 'led tv lg'),
(38, 6, 4, 'Microwave Oven', 3500, 'Microwave Oven', 'images.jpg', 'Microwave
Oven'),
(39, 6, 5, 'Mixer Grinder', 2500, 'Mixer Grinder', 'singer-mixer-grinder-mg-46-
medium_4bfa018096c25dec7ba0af40662856ef.jpg', 'Mixer Grinder'),
(40, 2, 6, 'Formal girls dress', 3000, 'Formal girls dress', 'girl-walking.jpg',
'ladies'),
(45, 1, 2, 'Samsung Galaxy Note 3', 10000, '0',
'samsung galaxy note3 note3neo.JPG', 'samsung galaxy Note 3 neo'),
(46, 1, 2, 'Samsung Galaxy Note 3', 10000, '',
'samsung_galaxy_note3_note3neo.JPG', 'samsung galxaxy note 3 neo'),
(47, 4, 6, 'Laptop', 650, 'nbk', 'product01.png', 'Dell Laptop'),
(48, 1, 7, 'Headphones', 250, 'Headphones', 'product05.png', 'Headphones Sony'),
(49, 1, 7, 'Headphones', 250, 'Headphones', 'product05.png', 'Headphones Sony'),
(50, 3, 6, 'boys shirts', 350, 'shirts', 'pm1.JPG', 'suit boys shirts'),
(51, 3, 6, 'boys shirts', 270, 'shirts', 'pm2.JPG', 'suit boys shirts'),
(52, 3, 6, 'boys shirts', 453, 'shirts', 'pm3.JPG', 'suit boys shirts'),
(53, 3, 6, 'boys shirts', 220, 'shirts', 'ms1.JPG', 'suit boys shirts'),
(54, 3, 6, 'boys shirts', 290, 'shirts', 'ms2.JPG', 'suit boys shirts'),
(55, 3, 6, 'boys shirts', 259, 'shirts', 'ms3.JPG', 'suit boys shirts'),
(56, 3, 6, 'boys shirts', 299, 'shirts', 'pm7.JPG', 'suit boys shirts'),
(57, 3, 6, 'boys shirts', 260, 'shirts', 'i3.JPG', 'suit boys shirts'),
(58, 3, 6, 'boys shirts', 350, 'shirts', 'pm9.JPG', 'suit boys shirts'),
(59, 3, 6, 'boys shirts', 855, 'shirts', 'a2.JPG', 'suit boys shirts'),
(60, 3, 6, 'boys shirts', 150, 'shirts', 'pm11.JPG', 'suit boys shirts'),
(61, 3, 6, 'boys shirts', 215, 'shirts', 'pm12.JPG', 'suit boys shirts'),
(62, 3, 6, 'boys shirts', 299, 'shirts', 'pm13.JPG', 'suit boys shirts'),
(63, 3, 6, 'boys Jeans Pant', 550, 'Pants', 'pt1.JPG', 'boys Jeans Pant'),
(64, 3, 6, 'boys Jeans Pant', 460, 'pants', 'pt2.JPG', 'boys Jeans Pant'),
```

```
(65, 3, 6, 'boys Jeans Pant', 470, 'pants', 'pt3.JPG', 'boys Jeans Pant'),
(66, 3, 6, 'boys Jeans Pant', 480, 'pants', 'pt4.JPG', 'boys Jeans Pant'),
(67, 3, 6, 'boys Jeans Pant', 360, 'pants', 'pt5.JPG', 'boys Jeans Pant'),
(68, 3, 6, 'boys Jeans Pant', 550, 'pants', 'pt6.JPG', 'boys Jeans Pant'),
(69, 3, 6, 'boys Jeans Pant', 390, 'pants', 'pt7.JPG', 'boys Jeans Pant'),
(70, 3, 6, 'boys Jeans Pant', 399, 'pants', 'pt8.JPG', 'boys Jeans Pant'),
(71, 1, 2, 'Samsung galaxy s7', 5000, 'Samsung galaxy s7', 'product07.png',
'samsung mobile electronics'),
(72, 7, 2, 'sony Headphones', 3500, 'sony Headphones', 'product02.png', 'sony
Headphones electronics gadgets'),
(73, 7, 2, 'samsung Headphones', 3500, 'samsung Headphones', 'product05.png',
'samsung Headphones electronics gadgets'),
(74, 1, 1, 'HP i5 laptop', 5500, 'HP i5 laptop', 'product01.png', 'HP i5 laptop
electronics'),
(75, 1, 1, 'HP i7 laptop 8gb ram', 5500, 'HP i7 laptop 8gb ram', 'product03.png',
'HP i7 laptop 8gb ram electronics'),
(76, 1, 5, 'sony note 6gb ram', 4500, 'sony note 6gb ram', 'product04.png', 'sony
note 6gb ram mobile electronics'),
(77, 1, 4, 'MSV laptop 16gb ram NVIDEA Graphics', 5499, 'MSV laptop 16gb ram',
'product06.png', 'MSV laptop 16gb ram NVIDEA Graphics electronics'),
(78, 1, 5, 'dell laptop 8gb ram intel integerated Graphics', 4579, 'dell laptop
8gb ram intel integerated Graphics', 'product08.png', 'dell laptop 8gb ram intel
integerated Graphics electronics'),
(79, 7, 2, 'camera with 3D pixels', 2569, 'camera with 3D pixels',
'product09.png', 'camera with 3D pixels camera electronics gadgets'),
(80, 1, 1, 'ytrfdkjsd', 12343, 'sdfhgh', '1542455446 thythtf .jpeg', 'dfgh'),
(81, 4, 6, 'Kids blue dress', 300, 'blue dress', '1543993724_pg4.jpg', 'kids blue
dress');
CREATE TABLE `user_info` (
  `user id` int(10) NOT NULL,
 `first name` varchar(100) NOT NULL,
 `last name` varchar(100) NOT NULL,
  `email` varchar(300) NOT NULL,
 `password` varchar(300) NOT NULL,
  `mobile` varchar(10) NOT NULL,
  `address1` varchar(300) NOT NULL,
  `address2` varchar(11) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
INSERT INTO `user_info` (`user_id`, `first_name`, `last_name`, `email`,
`password`, `mobile`, `address1`, `address2`) VALUES
(12, 'puneeth', 'Reddy', 'puneethreddy951@gmail.com', 'puneeth', '9448121558',
'123456789', 'sdcjns,djc'),
(15, 'hemu', 'ajhgdg', 'puneethreddy951@gmail.com', '346778', '536487276',
',mdnbca', 'asdmhmhvbv'),
(16, 'venky', 'vs', 'venkey@gmail.com', '1234534', '9877654334',
'snhdgvajfehyfygv', 'asdjbhfkeur'),
(19, 'abhishek', 'bs', 'abhishekbs@gmail.com', 'asdcsdcc', '9871236534',
'bangalore', 'hassan'),
(21, 'prajval', 'mcta', 'prajvalmcta@gmail.com', '1234545662', '202-555-01',
'bangalore', 'kumbalagodu'),
(22, 'puneeth', 'v', 'hemu@gmail.com', '1234534', '9877654334',
'snhdgvajfehyfygv', 'asdjbhfkeur'),
(23, 'hemanth', 'reddy', 'hemanth@gmail.com', 'Puneeth@123', '9876543234',
'Bangalore', 'Kumbalagodu'),
(24, 'newuser', 'user', 'newuser@gmail.com', 'puneeth@123', '9535688928',
'Bangalore', 'Kumbalagodu'),
(25, 'otheruser', 'user', 'otheruser@gmail.com', 'puneeth@123', '9535688928',
'Bangalore', 'Kumbalagodu');
DELIMITER $$
CREATE TRIGGER `after_user_info_insert` AFTER INSERT ON `user_info` FOR EACH ROW
BEGIN
INSERT INTO user info backup
VALUES(new.user id,new.first name,new.last name,new.email,new.password,new.mobile
,new.address1,new.address2);
END
$$
DELIMITER;
CREATE TABLE `user_info_backup` (
 `user id` int(10) NOT NULL,
```

```
first_name` varchar(100) NOT NULL,
  `last name` varchar(100) NOT NULL,
  `email` varchar(300) NOT NULL,
  `password` varchar(300) NOT NULL,
  `mobile` varchar(10) NOT NULL,
  `address1` varchar(300) NOT NULL,
  `address2` varchar(11) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
INSERT INTO `user_info_backup` (`user_id`, `first_name`, `last_name`, `email`,
`password`, `mobile`, `address1`, `address2`) VALUES
(12, 'puneeth', 'Reddy', 'puneethreddy951@gmail.com', '123456789', '9448121558',
'123456789', 'sdcjns,djc'),
(14, 'hemanthu', 'reddy', 'hemanthreddy951@gmail.com', '123456788', '6526436723',
's,dc wfjvnvn', 'b efhfhvvbr'),
(15, 'hemu', 'ajhgdg', 'keeru@gmail.com', '346778', '536487276', ',mdnbca',
'asdmhmhvbv'),
(16, 'venky', 'vs', 'venkey@gmail.com', '1234534', '9877654334',
'snhdgvajfehyfygv', 'asdjbhfkeur'),
(19, 'abhishek', 'bs', 'abhishekbs@gmail.com', 'asdcsdcc', '9871236534',
'bangalore', 'hassan'),
(20, 'pramod', 'vh', 'pramod@gmail.com', '124335353', '9767645653', 'ksbdfcdf',
'sjrgrevgsib'),
(21, 'prajval', 'mcta', 'prajvalmcta@gmail.com', '1234545662', '202-555-01',
'bangalore', 'kumbalagodu'),
(22, 'puneeth', 'v', 'hemu@gmail.com', '1234534', '9877654334',
'snhdgvajfehyfygv', 'asdjbhfkeur'),
(23, 'hemanth', 'reddy', 'hemanth@gmail.com', 'Puneeth@123', '9876543234',
'Bangalore', 'Kumbalagodu'),
(24, 'newuser', 'user', 'newuser@gmail.com', 'puneeth@123', '9535688928',
'Bangalore', 'Kumbalagodu'),
(25, 'otheruser', 'user', 'otheruser@gmail.com', 'puneeth@123', '9535688928',
'Bangalore', 'Kumbalagodu');
ALTER TABLE `admin_info`
 ADD PRIMARY KEY (`admin_id`);
```

```
ALTER TABLE `brands`
 ADD PRIMARY KEY (`brand_id`);
ALTER TABLE `cart`
 ADD PRIMARY KEY ('id');
ALTER TABLE `categories`
 ADD PRIMARY KEY (`cat_id`);
ALTER TABLE `email_info`
 ADD PRIMARY KEY (`email_id`);
ALTER TABLE `logs`
 ADD PRIMARY KEY (`id`);
ALTER TABLE `orders`
 ADD PRIMARY KEY (`order_id`);
ALTER TABLE `orders_info`
 ADD PRIMARY KEY (`order id`),
 ADD KEY `user_id` (`user_id`);
ALTER TABLE `order_products`
 ADD PRIMARY KEY (`order_pro_id`),
 ADD KEY `order_products` (`order_id`),
 ADD KEY `product_id` (`product_id`);
ALTER TABLE `products`
 ADD PRIMARY KEY (`product_id`);
ALTER TABLE `user_info`
ADD PRIMARY KEY (`user_id`);
```

```
ALTER TABLE `user_info_backup`
 ADD PRIMARY KEY (`user_id`);
ALTER TABLE `admin info`
 MODIFY `admin_id` int(10) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=2;
ALTER TABLE `brands`
 MODIFY `brand_id` int(100) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=7;
ALTER TABLE `cart`
 MODIFY `id` int(10) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=147;
ALTER TABLE `categories`
 MODIFY `cat_id` int(100) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=8;
ALTER TABLE `email_info`
 MODIFY `email_id` int(100) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=6;
ALTER TABLE `logs`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT;
```

```
ALTER TABLE `orders`
 MODIFY `order_id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=3;
ALTER TABLE `orders info`
 MODIFY `order id` int(10) NOT NULL AUTO INCREMENT, AUTO INCREMENT=16;
ALTER TABLE `order products`
 MODIFY `order_pro_id` int(10) NOT NULL AUTO_INCREMENT, AUTO INCREMENT=91;
ALTER TABLE `products`
 MODIFY `product_id` int(100) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=82;
ALTER TABLE `user_info`
 MODIFY `user id` int(10) NOT NULL AUTO INCREMENT, AUTO INCREMENT=26;
ALTER TABLE `user_info_backup`
 MODIFY `user_id` int(10) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=26;
ALTER TABLE `orders_info`
 ADD CONSTRAINT `user_id` FOREIGN KEY (`user_id`) REFERENCES `user_info`
(`user_id`);
ALTER TABLE `order products`
 ADD CONSTRAINT `order_products` FOREIGN KEY (`order_id`) REFERENCES
`orders info` (`order id`) ON DELETE NO ACTION ON UPDATE CASCADE,
```

```
ADD CONSTRAINT `product_id` FOREIGN KEY (`product_id`) REFERENCES `products` (`product_id`);
COMMIT;
```

6. Modules:

1. User Authentication Module:

- Handles user registration, login, logout, and password management functionalities.
- Includes authentication middleware or classes to restrict access to certain parts of the application based on user roles and permissions.
- Utilizes encryption techniques like bcrypt for securely storing and validating passwords.

2. Data Management Module:

- Manages CRUD (Create, Read, Update, Delete) operations for various entities in the application, such as users, products, articles, etc.
- Ensures data integrity through validation and sanitization of user input before interacting with the database.
- Implements database abstraction layers or ORMs (Object-Relational Mappers) for efficient database interactions.

3. Payment Processing Module:

- Integrates with payment gateways like PayPal, Stripe, or Braintree to facilitate online payments.
- Handles payment transactions, including payment validation, processing refunds, and handling payment failures.
- Ensures security compliance with PCI-DSS (Payment Card Industry Data Security Standard) guidelines for handling sensitive payment information.

4. Content Management Module:

- Manages dynamic content such as articles, blog posts, or multimedia content.

- Includes features for creating, editing, and deleting content, as well as organizing content into categories or tags.
- Supports rich text editing features using WYSIWYG (What You See Is What You Get) editors like CKEditor or TinyMCE.

5. Search and Filtering Module:

- Implements search functionality to enable users to find relevant content or products quickly.
- Provides advanced filtering options based on various criteria such as price range, category, date, etc.
- Utilizes indexing and caching techniques for optimizing search performance, especially for large datasets.

6. Reporting and Analytics Module:

- Generates reports and analytics dashboards to provide insights into user behavior, traffic patterns, sales performance, etc.
- Integrates with analytics platforms like Google Analytics or Piwik for tracking website usage metrics.
- Includes features for exporting reports in various formats such as PDF, CSV, or Excel.

7. Applications

1. E-commerce Application:

- Allows users to browse products, add items to the cart, and proceed with the checkout process to make purchases.
- Includes features for managing product listings, inventory, order processing, and payment integration with multiple payment gateways.
- Provides user account management, order history, wishlists, and product reviews.

2. Content Management System (CMS):

- Enables administrators to create, edit, and publish content such as articles, blog posts, news updates, and multimedia content.
- Supports user roles and permissions for different levels of access, including content creators, editors, and administrators.
- Offers customizable templates, themes, and plugins/extensions to extend functionality and design flexibility.

3. Social Networking Platform:

- Facilitates user interaction through features like user profiles, friend connections, messaging/chat, comments, and likes.
- Provides news feeds or timelines to display updates from friends or followed users, along with content discovery and recommendation algorithms.
- Implements privacy settings and moderation tools to manage usergenerated content and ensure a safe and enjoyable user experience.

4. Learning Management System (LMS):

- Offers online courses, tutorials, quizzes, and assessments for learners to acquire new skills or knowledge.

- Provides features for course creation, enrollment, progress tracking, grading, and certification.
- Supports multimedia content delivery, discussion forums, and collaboration tools for students and instructors.

5. Booking and Reservation System:

- Allows users to book appointments, reservations, tickets, or accommodations for various services such as hotels, restaurants, events, or transportation.
- Provides availability calendars, time slots selection, and real-time booking confirmation with email/SMS notifications.
- Integrates with external APIs or services for location-based services, payment processing, and availability management.

6. Customer Relationship Management (CRM) System:

- Helps businesses manage interactions with customers, including leads, contacts, sales opportunities, and support tickets.
- Offers features for tracking customer interactions, communication history, sales pipeline, and customer segmentation.
- Integrates with email marketing tools, sales automation, and analytics for targeted marketing campaigns and sales forecasting.

7. Project Management Tool:

- Assists teams in planning, organizing, and tracking tasks, projects, and milestones.
- Provides collaboration features such as task assignment, file sharing, progress monitoring, and discussion forums.
- Offers Gantt charts, kanban boards, and time tracking capabilities for visualizing project workflows and resource allocation.

8. Conclusion:

In conclusion, this project aims to develop a robust web application using PHP that incorporates various modules for efficient back-end and front-end design and connectivity. The project features a comprehensive back-end design implemented in PHP, ensuring the functionality and security of the application. Additionally, the front-end design is carefully crafted to provide an intuitive and user-friendly interface, enhancing the user experience.

Connectivity between the back-end and front-end is seamlessly integrated, allowing smooth data exchange and interaction between different components of the application. By leveraging PHP's versatility and power, the project achieves its objectives of delivering a dynamic and responsive web application tailored to meet the needs of its users.

Throughout the development process, attention is paid to modularization, ensuring that the application remains scalable, maintainable, and extensible. The project also explores various applications of PHP, demonstrating its capabilities in diverse domains.

References:

- 1. PHP Documentation: Official documentation from the PHP website or other reputable sources can provide valuable information on PHP syntax, functions, and best practices.
- 2. Web Development Books: Books on PHP web development, such as "PHP and MySQL Web Development" by Luke Welling and Laura Thomson or "Modern PHP: New Features and Good Practices" by Josh Lockhart, can offer in-depth insights into PHP programming techniques.
- 3. Online Tutorials and Guides: Websites like W3Schools, PHP.net, and SitePoint offer tutorials, guides, and articles on various aspects of PHP programming and web development.

- 4. Framework Documentation: If you're using a PHP framework like Laravel, Symfony, or CodeIgniter, their official documentation can be a valuable resource for understanding framework-specific features and best practices.
- 5. Research Papers and Articles: Academic papers and articles on topics related to web development, PHP, database management, and software engineering can provide theoretical background and practical insights applicable to your project.
- 6. Online Forums and Communities: Websites like Stack Overflow, Reddit's r/PHP community, and PHPDeveloper.org host discussions, Q&A sessions, and user-generated content that can offer solutions to common programming challenges and insights into best practices.
- 7. Case Studies and Project Examples: Analyzing real-world projects, case studies, and sample code repositories on platforms like GitHub can provide inspiration, insights, and practical examples for your project.
- 8. If you have specific areas of your project, you'd like to find references for or if you have particular sources you've already consulted, please provide more details, and I can tailor my suggestions accordingly.