MONTCLAIR STATE UNIVERSITY

Department of CSIT

Computer Science and Information Technology

CSIT-555: DATABASE SYSTEMS

Rartian Valley E-Commerce Report

Submitted By

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Views

S.N	View	Username	Password
1.	Admin	admin	admin
2.	User	saileshkafle@gmail.com	BlueSky33$$
3.	Owner	owner	owner
4.	HR	hr	hr

Executive Summary

Raritan Valley Clothing Store is a local store owned by Mathew Turner & family. They are looking to expand their business online and want an e-Commerce site that can be used to sell their products globally. Mr. Turner is our primary contact person for this project. In case he is unavailable we can also contact his daughter Vivan Turner. This project is designed to fulfill a particular need of our client Raritan Valley Shop. This shop mainly sells products that are made locally using local resources, but they have been struggling to sell large quantities of products because of lack of outreach to customers. This need is fulfilled by designing an ecommerce website for this shop.

The world wide web has been an integral part of connecting business to a large number of customers. The main goal of e-commerce websites is to sell goods and services online. This project deals with the development of e-commerce websites for online sales.The products include a wide range of men's, women's, kids clothing and accessories such as ties, handbags, etc. Users can use a shopping cart to facilitate online purchases and can see their order history and track order as well .The products found in this store are less likely to be available on any other e-commerce site because products are uniquely made by using materials that are produced locally. Also, the products are designed by local designers.

This system is implemented using a three-tier approach, using a back-end database, jquery, bootstrap and PHP. This is a project aimed at developing a simple website where consumers can get shopping cart applications and learn about the techniques used to develop such applications. This document describes all the underlying technologies for creating and implementing e-commerce websites.

Business Plan

The goal is to create a dynamic, user-friendly website for the general audience.We noticed that people locally prefer local shops for their shopping needs. Although buying local products seems to be expensive for customers, we found out that customers are willing to pay a little more to support local businesses. This seems to be true for all kinds of products. All of the products are made in the United States with the highest-quality fabric and come with a money-back guarantee if the fit or style do not meet the customer's expectations. A dropshipping company will be used to receive any orders placed on the website, fulfill them, and send them directly to the customers. The only hindering factor for great sales is the unavailability of websites where customers can order what they want. We believe that creating a website along with a physical store will boost sales numbers and bring good revenue for the company.

Product Offering

The following are the types of products that are offered in this website:-

- Womens Clothings
- Mens Clothings
- Leathers items such as handbag, purse, coat etc
- Kids Clothing
- Ties
- Shoes

Goals

The main goal of this e-commerce project is to reach as many customers as possible to increase the company's sales and profitability. This website features include buying goods for customers, managing employees for owners, adding products for administrators, and managing their profile for employees. This website stores raise awareness of the company and attract more customers. This allows owners to sell more products and increase profits.

CHAPTER 1 : PROJECT DESIGN

Database Model

To design a website, one of the first phases is to design a relational database. Data model is used to design a relational table. Different data models were discussed and the best data model was chosen that serves the needs of the client. A data model is a conceptual representation of the data structure for a database. The first step in designing a database is to develop an Entity-Relation Diagram (ERD). ERD acts as a blueprint for deriving a relational database.

ER Diagram

The figure 1 below represents an ER diagram of the Raritan Valley E-commerce site that shows the database structure of the system. The entities used in the ER diagram of the system along with their respective attributes are shown in the figure below . The entities consist of Owner, User, Admin, HR, Employees, Order, Category and Product.

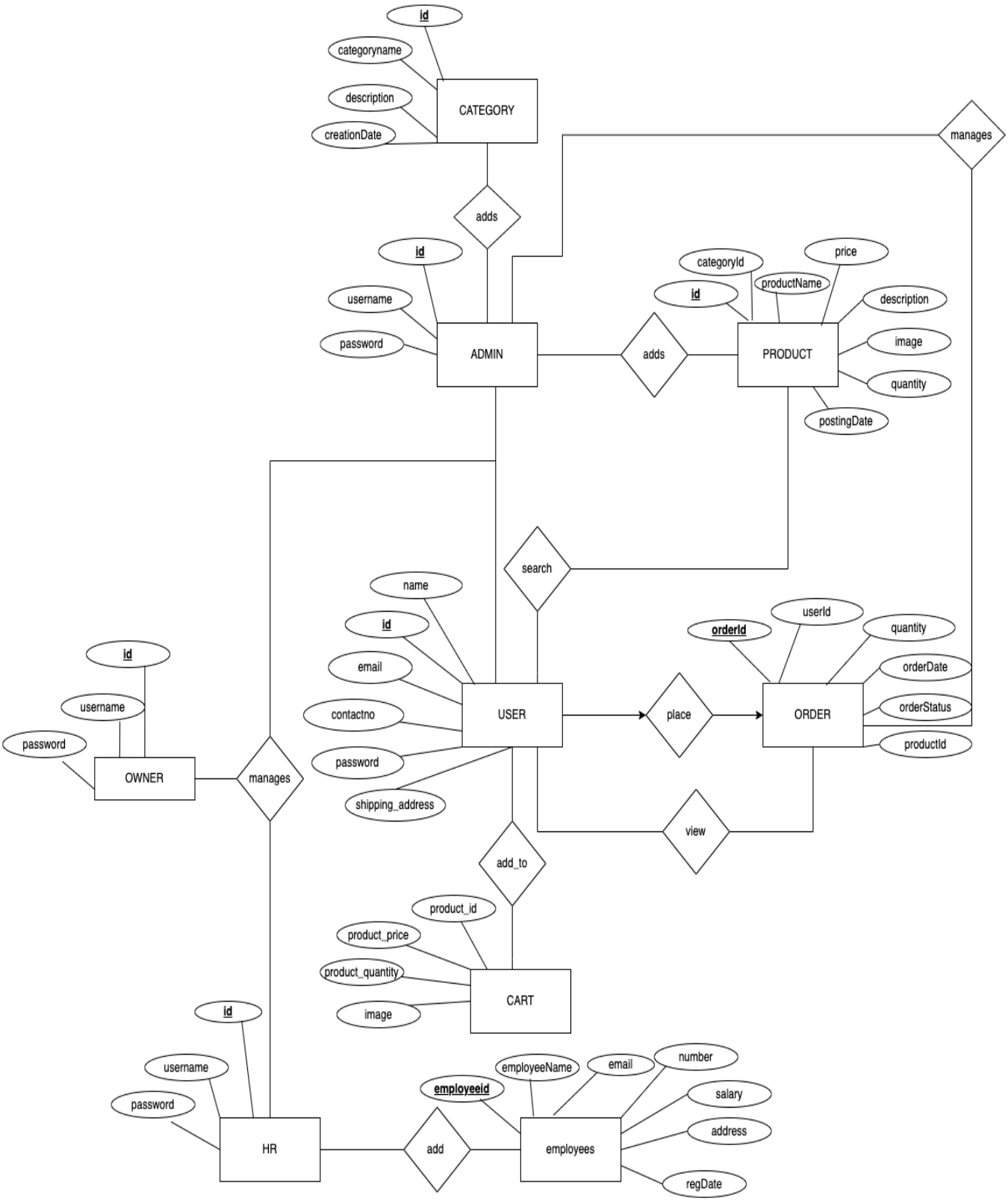


Fig 1: ER diagram showing all the tables and entities

Relational Model

Figure 2 below is a relational model that shows the relationship between two tables. Some tables are related by their attributes, in that case foreign key of one table is the primary key of another. For example, Order and User table are related as userid in order table is the foreign key for the order table and primary key of user table.

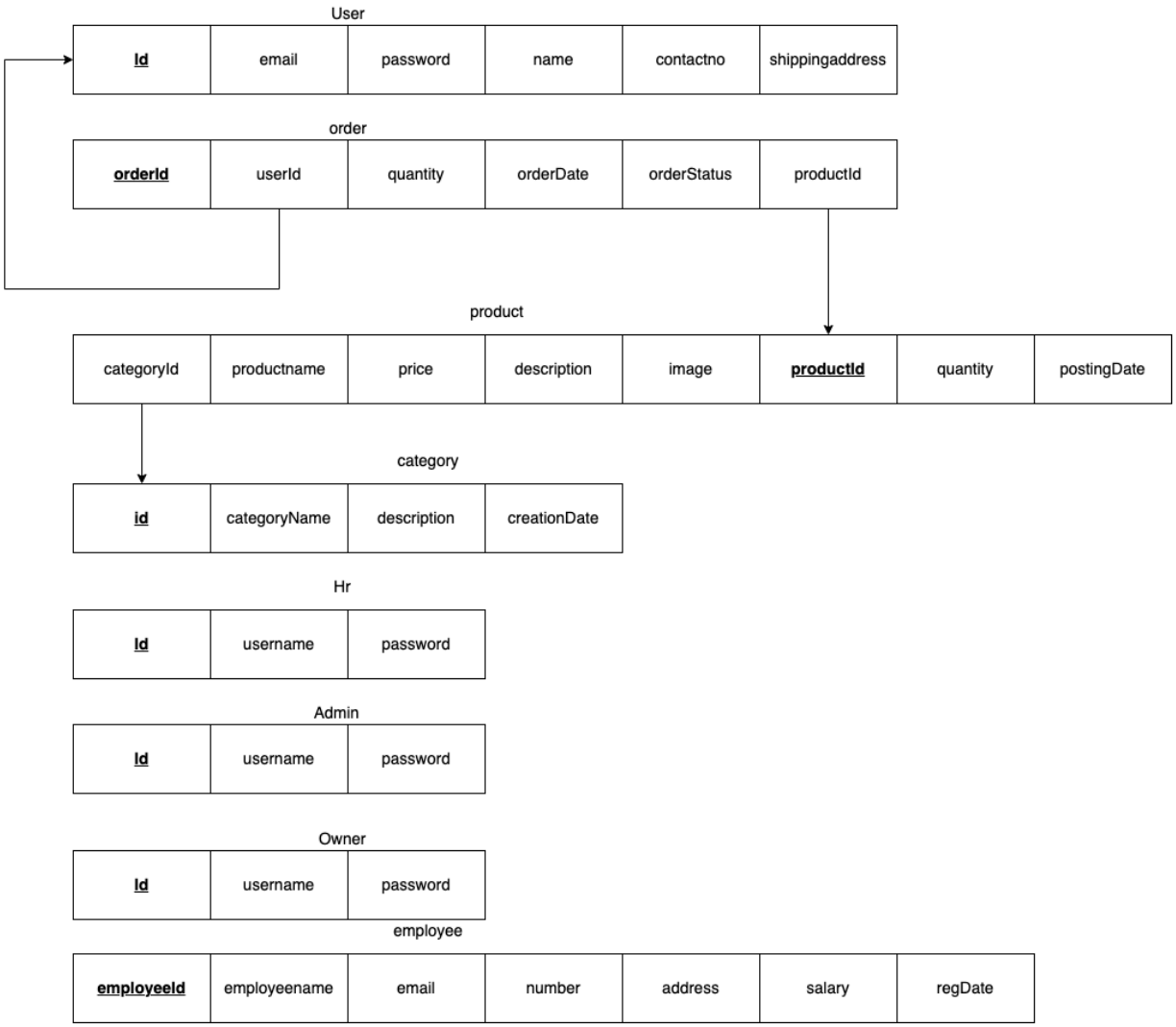


Fig 2 : Relational model with all the tables

Database Design

Database is designed by reducing most of the redundancy, and eliminating any sql injection, update and deletion anomalies. Figure below shows tables with descriptions about columns along with information about primary and foreign keys.

Users

No.	Name	Type	Description
1	id	int	Primary key of user table
2	name	varchar	First and last name of the registered user
3	Email	varchar	Valid email address of a registered user
4	contactno	int	Phone number of a user
5	Pasword	varchar	Encrypted password of the user
6	shippingAddress	varchar	Shipping address for the user
7	regDate	Date	Date in which user registered to the webpage

Product

No.	Name	Type	Description
1	id	int	Unique product ID as a primary key
2	categoryName	varchar	Category name is the foreign key
3	productName	varchar	Information about product name
4	Description	varchar	Details about the product
5	Price	int	Price of the product
6	image	varchar	image of the product
7	Quantity	int	Total quantities of the product in the website
8	postingDate	Date	Date when the product is added to the database

Admin

No.	Name	Type	Description
1	id	int	Primary key of an administrator
2	username	varchar	Username of the admin
3	password	varchar	Encrypted password of an admin

Orders

No.	Name	Type	Description
1	orderId	int	This is primary key for the table
2	userId	int	This is foreign key coming from users table
3	productid	int	This is foreign key coming from product table
4	quantity	int	Total quantities ordered
5	orderDate	Date	Date when product was ordered
6	orderStatus	int	Status of the order process

Category

No.	Name	Type	Description
1	id	int	Unique order id as a primary key
2	categoryName	varchar	Name of the category
3	categoryDescription	varchar	Details about the category
4	creationDate	Date	Date in which category was created

Owner

No.	Name	Type	Description
1	id	int	Primary key of this table
2	username	varchar	Username of the owner
3	password	varchar	Encrypted password of the owner

CHAPTER 2: IMPLEMENTATION

Implementation of Technologies

The main goal of this project is to create a user-friendly website for customers who would like to shop online. They should be able to go to a url in a browser and get to the website. In the real world scenario it would be hosted in a web server but right now it is hosted in a cyan server from university. Front end development is done in Javascript using Jquery and bootstrap libraries. As a server-side scripting language PHP is used to get the data from the database and embedded into the HTML so that it can create dynamic web pages without needing to call external javascript files.

PHP

PHP (Hypertext Preprocessor) is a general purpose scripting language that can be used to develop dynamic and interactive websites. This was one of the first server-side languages that could be embedded in HTML, making it easy to add functionality to web pages without invoking external files for the data. PHP has a lot of readily available inbuilt functions that can be used to connect to the database, get that data and show it in the front end.

JavaScript

Javascript libraries like Jquery, bootstrap have a lot of functions that can be used to perform particular tasks on the website. Instead of writing all the functionality from scratch, we have used jquery and bootstrap in our project.

HTML, CSS

HTML and CSS are used in the front end development of the website. Hypertext Markup Language (HTML) is the standard mark-up language for documents designed to be viewed in a web browser. It can be supported by technologies such as cascading style sheets and scripting languages such as JavaScript.

MySQL

MySQL is an open source database system developed and supported by Oracle. It uses a relational database approach as a relation between its tables. It is one of the best RDBMSs used to develop web-based software applications. MySQL works well with PHP as you can write queries in PHP and send the request to MySQL database with PHP functions.

Database Connectivity

MySQLi is the driver used to connect PHP and MySQL databases. It provides a better set of functions and extensions to connect to the MySQL database in a safer and faster way. MySQLi was introduced with PHP 5.0.0 and the drivers were installed in 5.3.0. The API was designed to support MySQL from version 4.1.13 to newer ones.

Mysqli also supports prepared statements that protect against SQL injection. The main useful features are: Object-oriented interface support for prepared statements, support for multiple statements, transaction support, advanced debugging features and built-in server support.

The connection code to the mysql database is as follows:-

```
<?php
define('DB_SERVER', 'localhost:3306');
define('DB_USER', 'ghimira1_atts');
define('DB_PASS', 'BlueGrass33$$');
define('DB_NAME', 'ghimira1_raritan_valley_ecom');
$conn = mysqli_connect(DB_SERVER, DB_USER, DB_PASS, DB_NAME);
if (mysqli_connect_errno()) {
  echo "Failed to connect to MySQL:" . mysqli_connect_error();
}
?>
```

Client Side Scripting

Source code written in a language such as JavaScript in a client-side script and embedded in an HTML document with static HTML text. It is placed on the border tag to indicate to the user's browser that the text is the code that needs to be interpreted. If the user's browser can recognize

and interpret the code, the code will be processed. If the browser cannot recognize and interpret the code, it will be displayed as text on the web page. The Jquery and Bootstrap libraries will be used as client-side scripts in this project.

CHAPTER 3 : SECURITY

Cyber attacks can result in a loss of money, data, and overall viability for organizations, therefore security is critical for e-commerce sites. One of the goals in this project is to make the website as secure as possible. No user has access to the website without registering themselves.

Encrypted Password:-

One of our most critical defenses against cyber attackers is a password. In this project, all the passwords are encrypted using the MD5 message-digest algorithm which uses a hash function to produce 128 bit value.The following is snapshot of code used in login.php where md5 function takes password as parameter and uses its hash function to encrypt the value while saving it in database. This ensures that passwords are not saved in plain-text format as shown in figure 3 below.

```
$password = md5($_POST['password']);
```

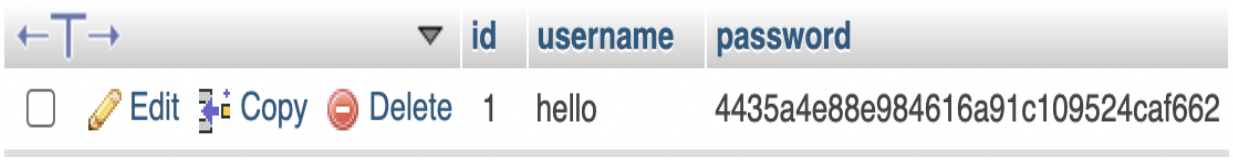


Fig 3 : Snapshot of database showing encrypted password

SQL injection

Attackers use SQL injection to insert SQL queries into input fields, which are subsequently processed by the SQL database. In this project we have used SQL injection prevention techniques such as prepared statements to make SQL injection impossible.

Two scenarios were evaluated, one using prepared statements and the other without.When prepared statements were not used, there exists the vulnerability of sql injection and an attacker could exploit that vulnerability to gain access to the database without using valid user name and password as shown in figure 4 below. We were able to login as an admin and manage the user page without valid email and password.

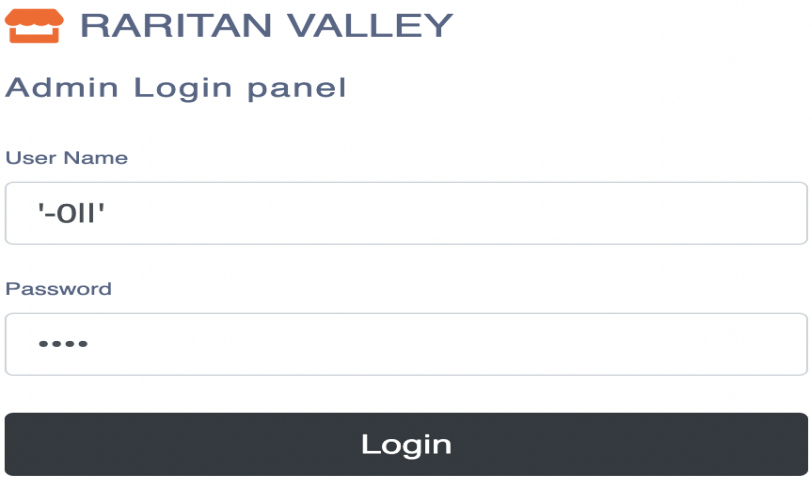


Fig 4: SQL injection vulnerability

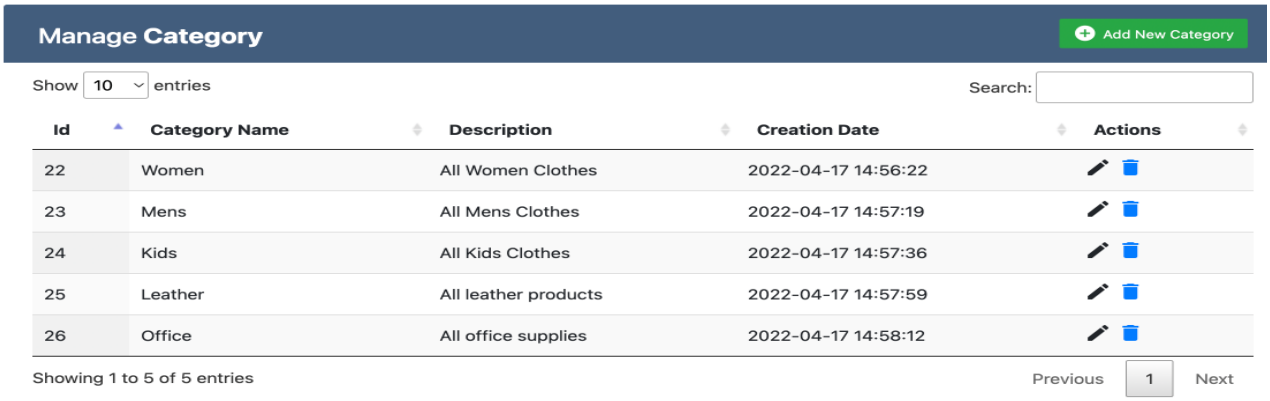


Fig5: Manage category page could be accessed

```php
if (isset($_POST['submit'])) {
  $username = $_POST['username'];
  $password = md5($_POST['password']);
  $query = mysqli_query($conn, "SELECT * FROM admin WHERE username='$username' and password='$password'");
  $num = mysqli_fetch_array($query);

  if ($num > 0) {
    $extra = "categories.php";
    $_SESSION['login'] = $_POST['username'];
    $_SESSION['id'] = $num['id'];
    $host = $_SERVER['HTTP_HOST'];
    $uri = rtrim(dirname($_SERVER['PHP_SELF']), '/\\');
    header("location:http://$host$uri/$extra");
    exit();
  } else {
    $extra = "index.php";
    $username = $_POST['username'];
    $host  = $_SERVER['HTTP_HOST'];
    $uri  = rtrim(dirname($_SERVER['PHP_SELF']), '/\\');
    header("location:http://$host$uri/$extra");
    $_SESSION['errmsg'] = "Invalid userid id or Password";
    exit();
  }
}
```

Fig 6: SQL Query without prepared statement

This issue was solved by using prepared statement

```php
//Login code
if (isset($_POST['submit'])) {
  $email = $_POST['email'];
  $password = md5($_POST['password']);
  $stmt = $conn->prepare("SELECT * FROM users WHERE email = ? AND password = ?");
  $stmt->bind_param("ss", $email, $password);
  $stmt->execute();
  $result = $stmt->get_result();      You, 3 hours ago • hr added …
  $row = mysqli_fetch_array($result);

  if (mysqli_num_rows($result) == 1) {
    $extra = "home.php";
    $_SESSION['login'] = $_POST['email'];
    $_SESSION['id'] = ['id'];
    $host = $_SERVER['HTTP_HOST'];
    $uri = rtrim(dirname($_SERVER['PHP_SELF']), '/\\');
    header("location:http://$host$uri/$extra");
    $stmt->close();
    exit();
  } else {
    $_SESSION['errmsg'] = "Invalid userid id or Password";
  }
}
?>
```

Fig 7: SQL Query with prepared statement

CHAPTER 4: USER INTERFACE DESIGN

Prior to implementing the actual design of the project, several user interface themes were created to visualize user browsing, shopping cart creation, and user interaction with the system during product purchase. We wanted to give users a smooth navigation and easy to navigate interface. Implementation of the payment system is not done for security reasons, but users can get to the final checkout page and order things. Users are divided into four roles and given access to pages according to their responsibilities. These views are:-

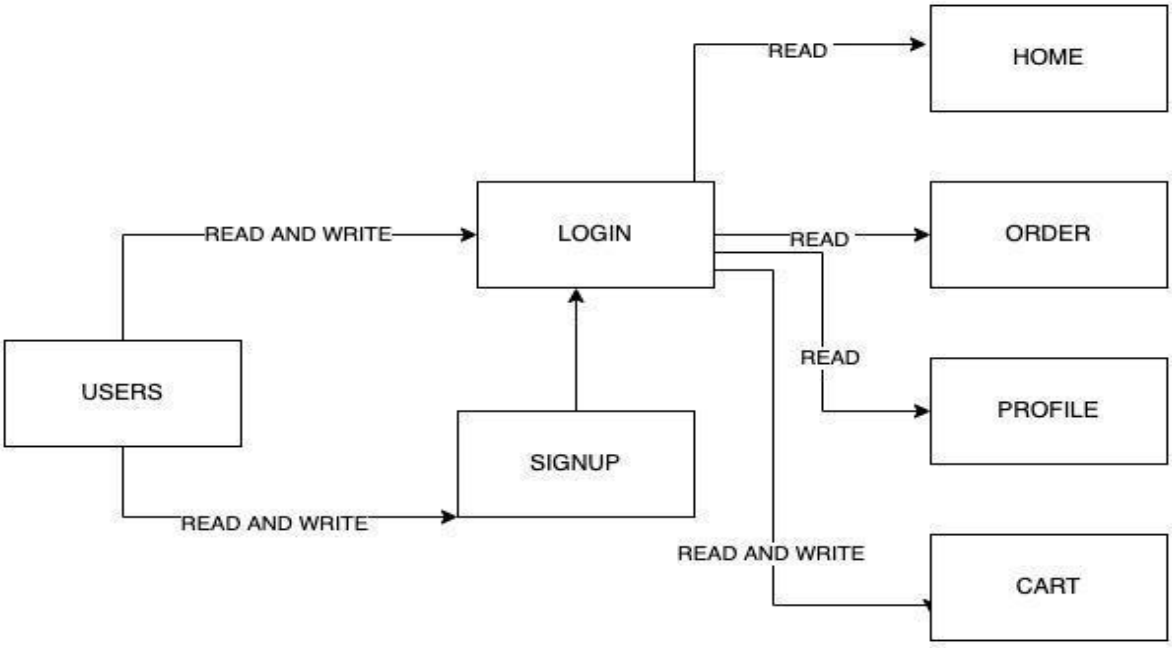
1) User
2) Administrator
3) Owner
4) HR

Data Flow Diagram (DFD)

Following figures show the data flow diagrams that show the flow of data from one entity to another into the system. These conceptual diagrams are designed and implemented in the process of software development.

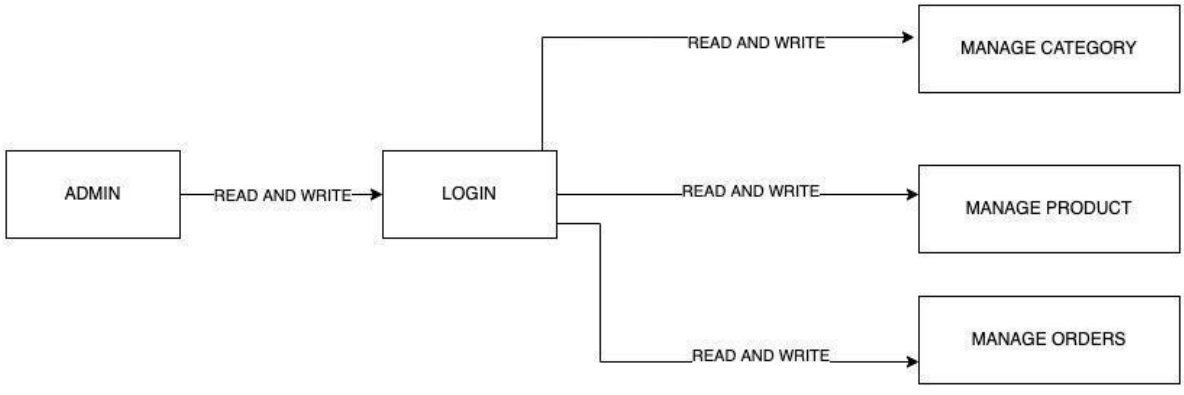
ROLES:-

1. **USER**:-



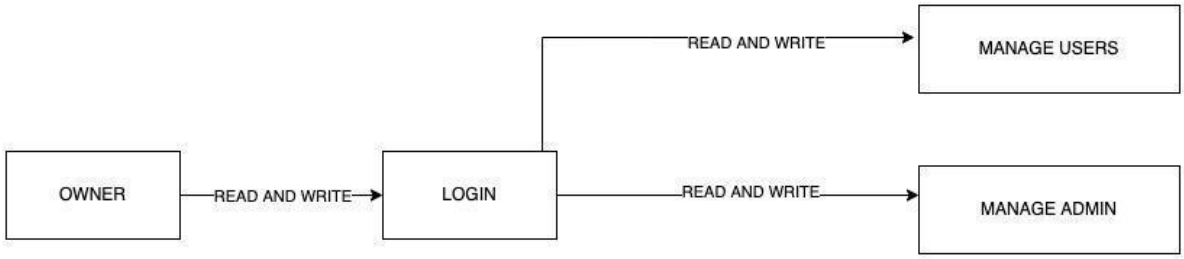
As a user, a person can sign up if they are not already registered to the website, after they are registered they can log in, order, and check out the products. They have read and write access to the signup, login, and cart page but have only read access to the home, order, and profile page.

2. ADMIN



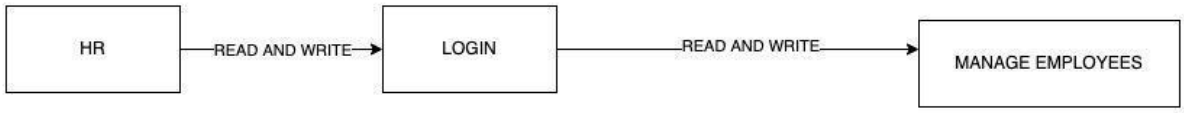
Admin access is reserved for special employees who have responsibilities to manage products by adding, editing and deleting, and tracking orders. They have read and write access to the login page, category, product, and orders page.

3. **OWNER**



As an owner of the website, owners can login and manage users and admin pages. They have read and write access to the login, managing user and managing admin page.

4. **HR**



HR role is given to the specific employees who manage other employees data like address, contact information, salary etc. They have read and write access to the employees data.

User

As a user, one can sign up if they do not have an account registered to the website already. After signing up with basic information like full name, email, password, contact number, shipping address, they can login to the system. Without registering to the website, one does not have access to the website, they cannot even see the products.

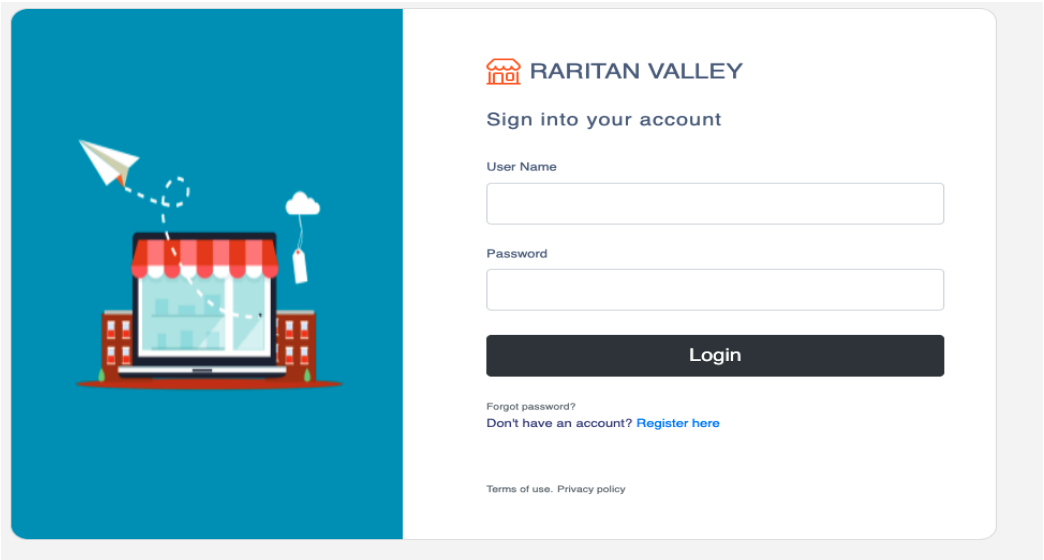


Fig 8:- Landing page of the website

The Figure 8 above shows the landing page when the user goes to the website url. If they are not already registered to the website, then they have to click on the “Register Here” link to register themselves. “Register Here” link will direct the user to the registration page.

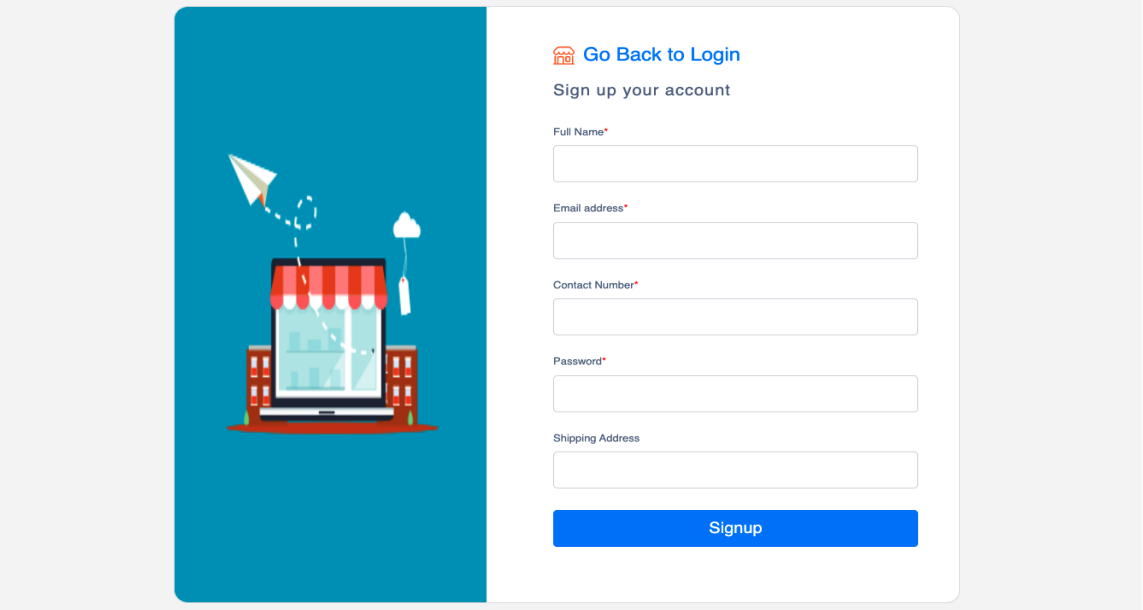


Fig 9 :- Registration page for the new user

The above figure 9 shows the sign up page where a user has to fill the form with their full name, email address, contact number, password and shipping address. After a user registers themselves, they will be directed to the home page shown in figure 10 below.

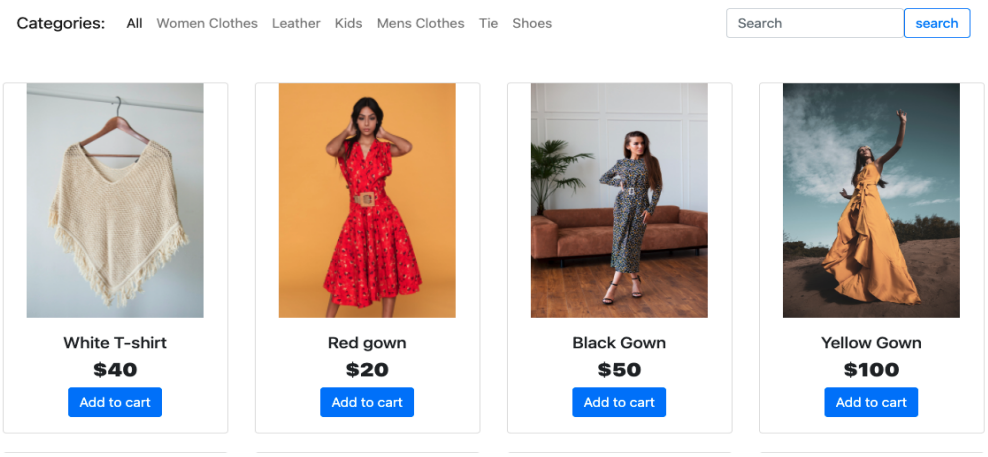


Fig 10 Home page of the user

Once the user is logged in using the right credentials, they will be directed to the above home page where they can see all types of products from different categories. They will also be able to search products on the search bar. They will also be able to navigate into the Profile page, view their order, and go to the cart directly. Users will be able to add the product they like into the cart and proceed to checkout. Users can also narrow down their search for products by clicking on different categories tabs. Users can also logout of the page once they finish shopping.

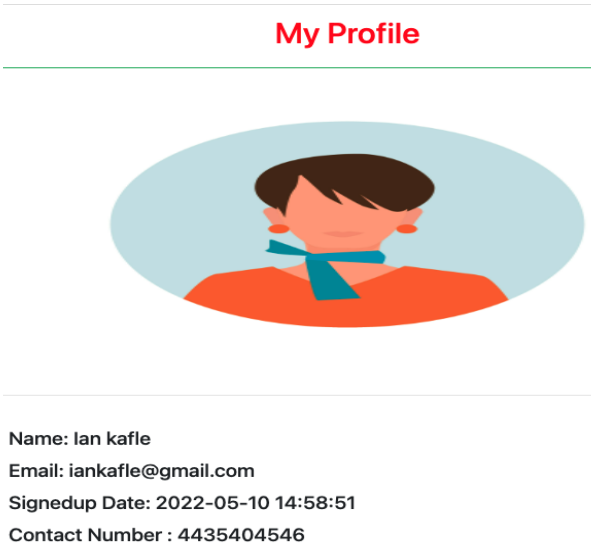


Fig 11 Profile page

When a user clicks on My Profile, they will see basic information like Name, Email, Signed up Date and contact number.

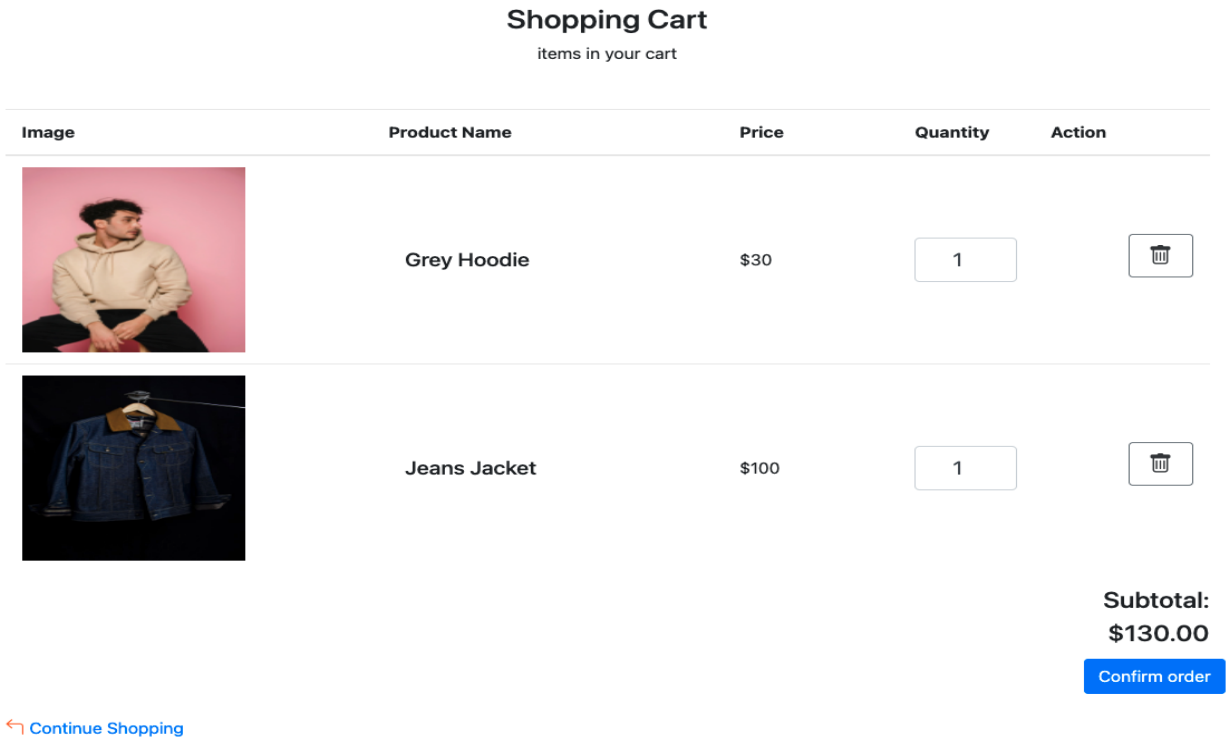


Fig 12 Shopping cart showing items to be checkout

Once the user clicks on the Add to Cart button, it will direct them to the Shopping cart page where they can see all the items that were added to cart. Once they hit Confirm Order, it will take them to the My Orders page where they can see all the items that are ordered.

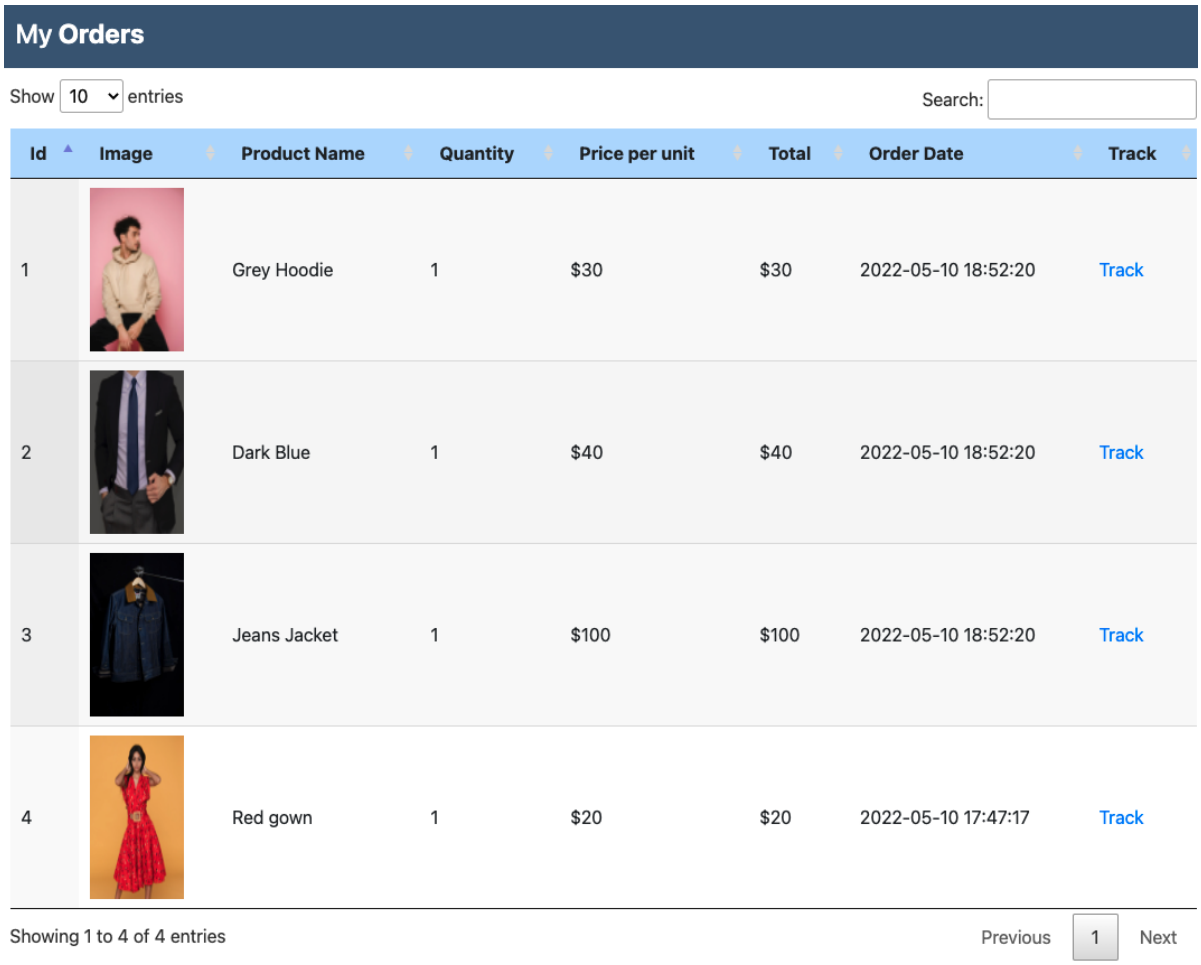


Fig 13 My orders page showing all the orders that a user placed

After a user places their order, they can track the order details by clicking on the Track link next to their ordered item as shown in figure 14 below.

Fig 14 Tracking and order details of a specific order

Administrator

Administrators are the employees who have special rights to add, delete, edit products details as required. Only administrators are allowed to make changes to product details, and manage orders. Figure 15 below shows admin pages and what privileges administrators have.

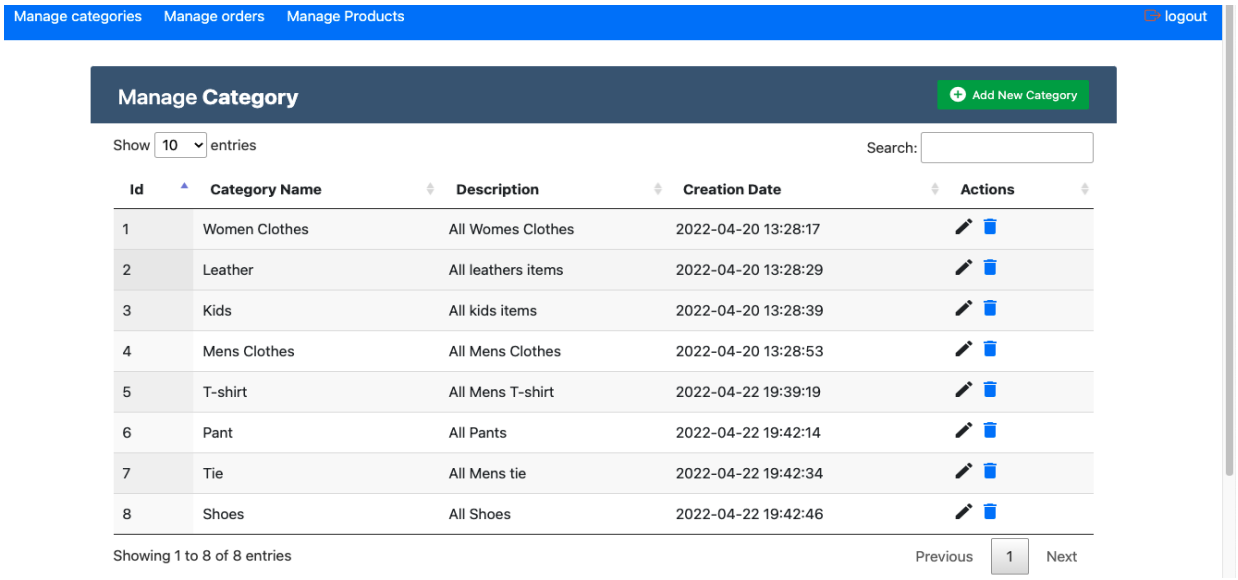


Fig 15 Manage category page showing all the categories

As an administrator, you can add categories to the website, you can just click on Add New Category and fill out the details for each category as shown below.

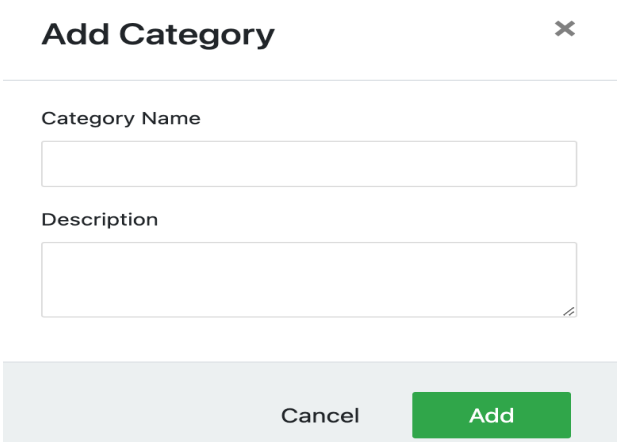


Fig 16 Admin can add product category

Admin can also edit or delete categories by clicking on edit or delete icon in the Action column as shown below.

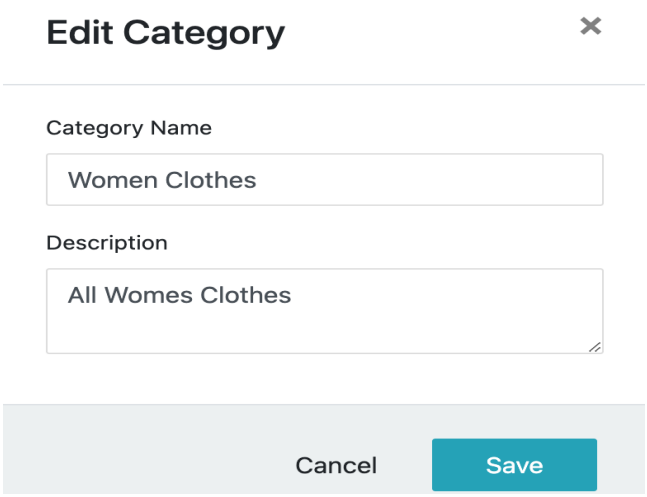


Fig 17 Admin can edit category details

As an administrator you can manage orders by looking at all the orders customers have placed, you can change the status of orders by selecting the dropdown menu on manage order page.

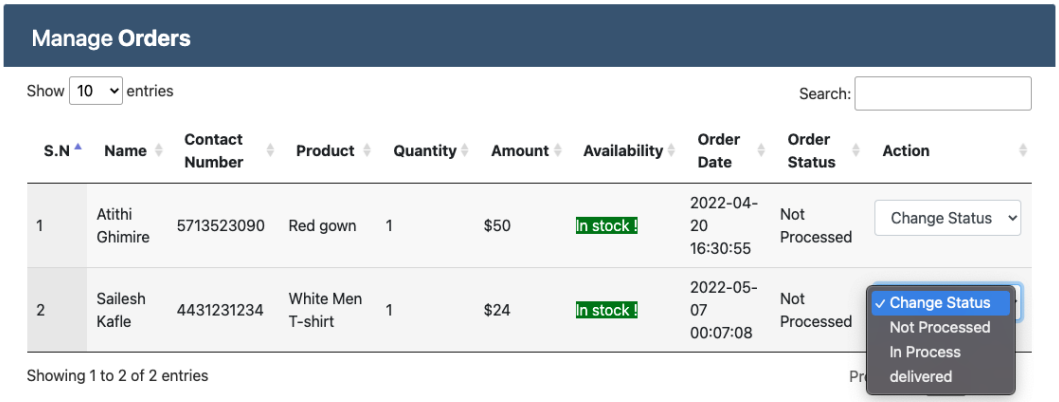


Fig 18 Admin can manage order by selecting order status

As an admin you can add new categories of the products as well as add new products to the website. This can be done by going to the "Manage categories" and "Manage Products" page.

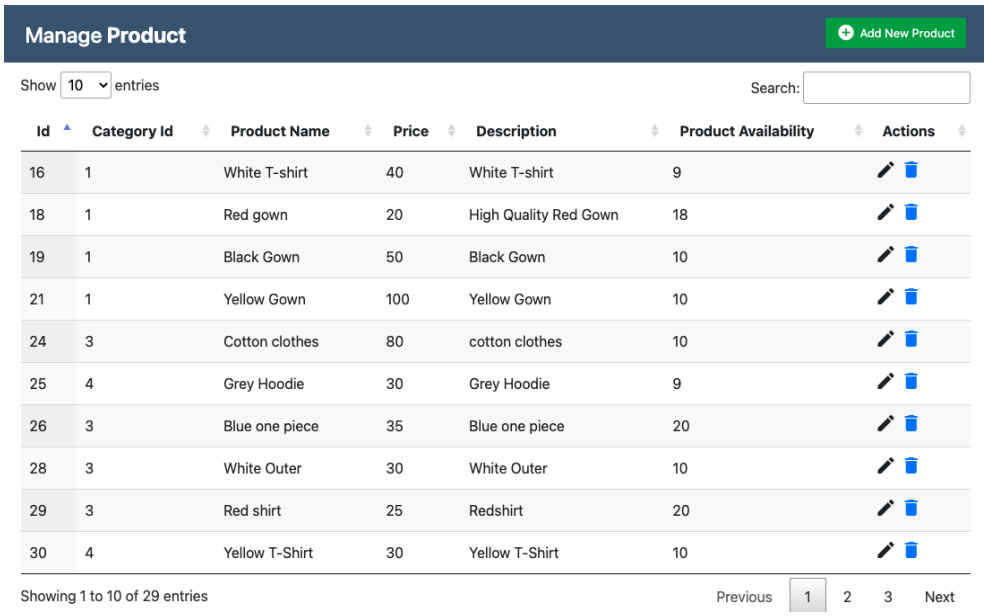


Fig 19 Manage product page with all the product for sale

Figure 19 above shows the "Manage Products" page. Admin can add products along with product name, price, availability and description as shown in figure 20 below.

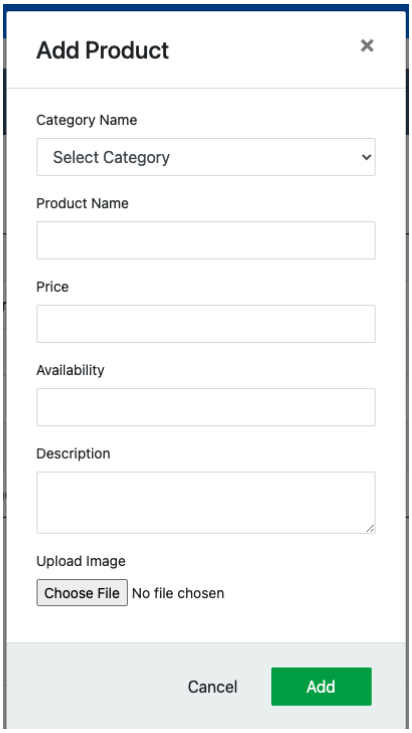


Fig 20 Admin can add products to the website

Admin can add products to the website by clicking on Add New Product and filling out Category Name, Product Name, Price, total available quantities, description of the product and by adding an image of the product as shown above.

Owner

This role is reserved for owners of the store, as an owner they have many responsibilities. Owners of the store can manage users and manage admins. They can add, delete and edit a particular user to the website and also can add and delete admin to the website.

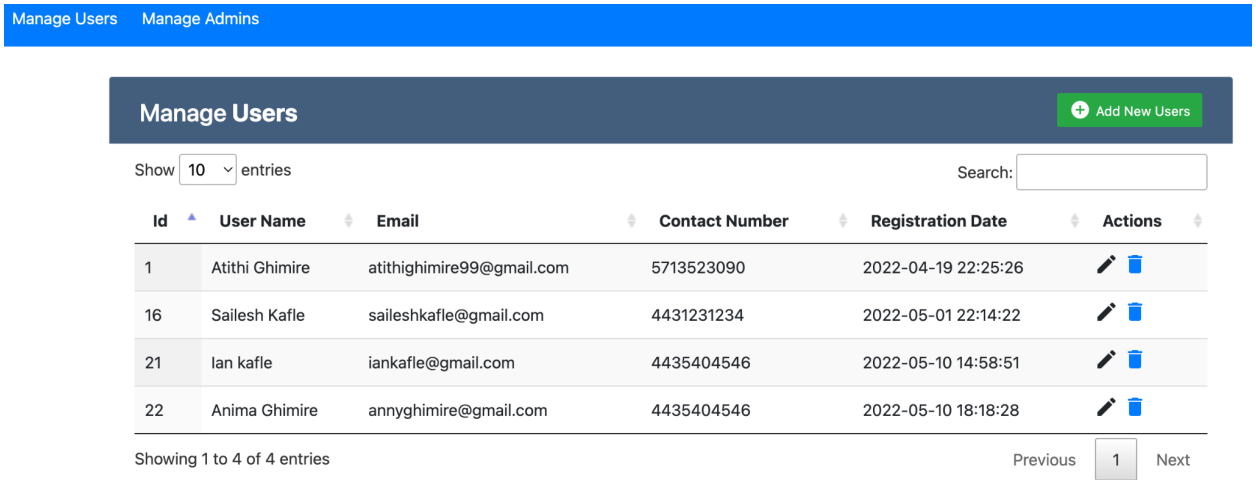


Fig 21 Owner can manage users and admins

Figure 21 above shows the owner can manage users and admins by clicking on Manage User and Manage Admins tabs.

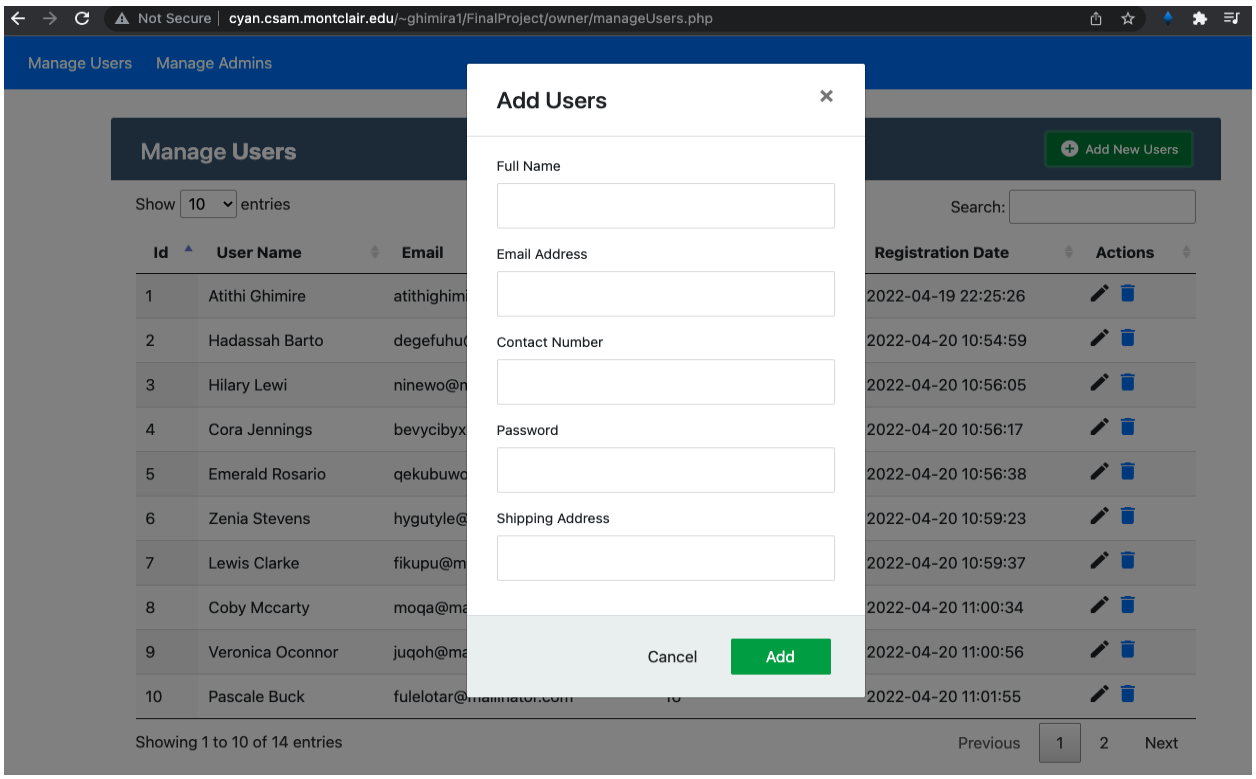


Fig 22 Admin adding users to the website

Figure 22 above shows the admin adding users to the website. This will add users to the user table in the database. Similarly, the owner can add and delete admin as shown figure 23 below.

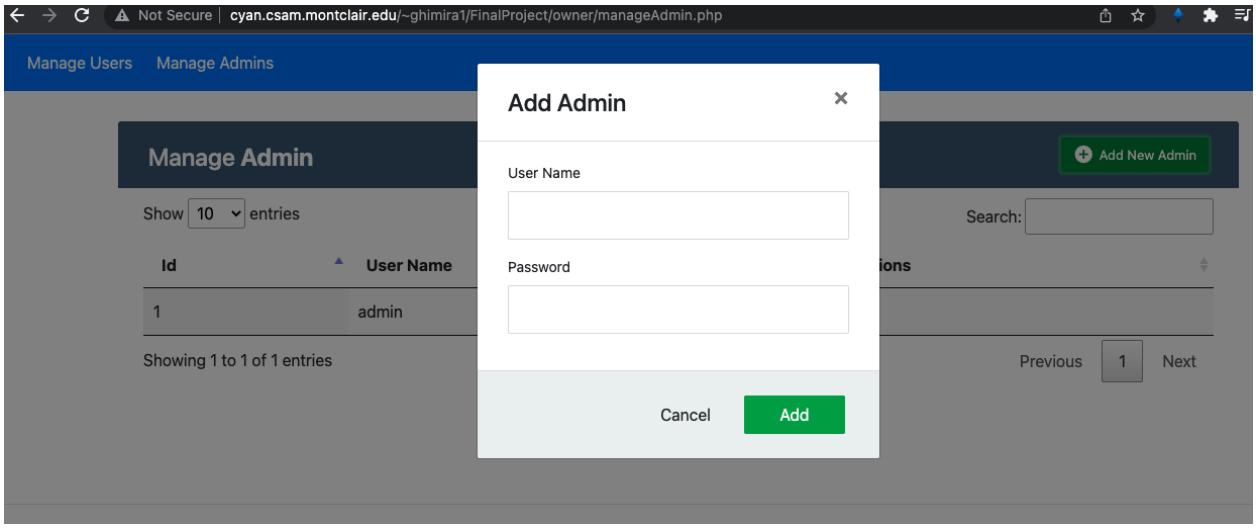


Fig 23 Owner adding admin to the website

HR

Every company has a human resource department whose job is to handle all the business related to employees employment to the company like salary, promotion, contact details etc. HR users should login using HR Username and Password. After HR logs in with the correct username and password, they are directed to manage the employee page as below.

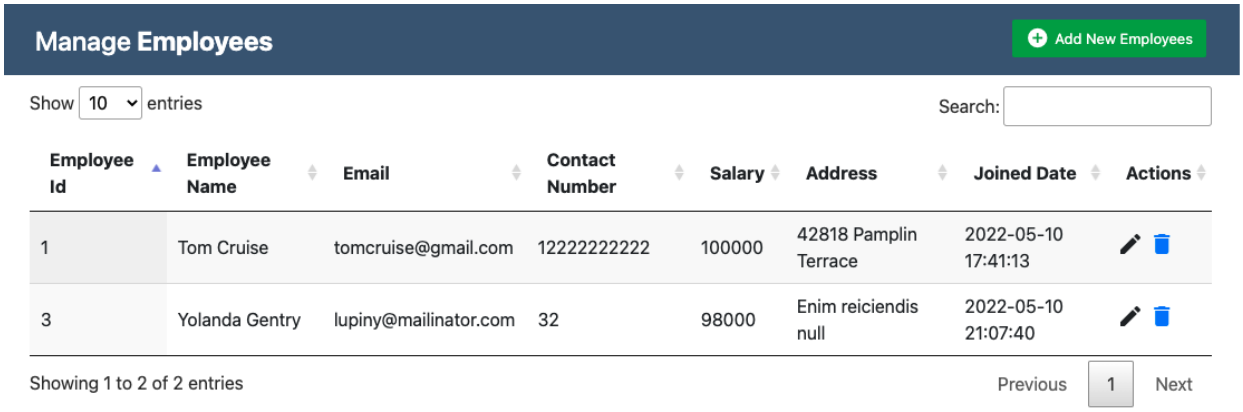


Fig 24 Manage Employees page where HR users can add new employees

HR users can add new employees by clicking on the Add New Employees button as shown below.

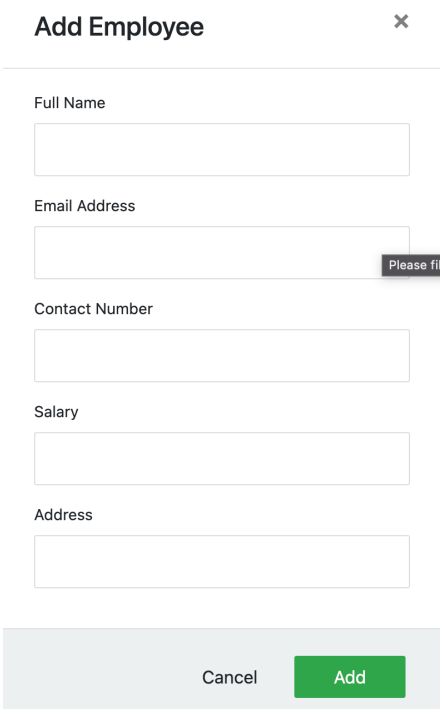


Fig 25 HR can add new employees

HR can add new employees with full name, email address, contact number, salary and address information. HR can also edit and delete employees as shown below.

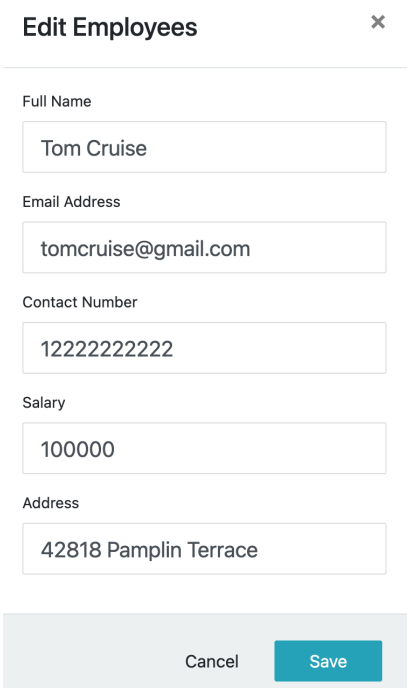


Fig 26 HR can edit employee information

Database Issues

There are few things that need to be considered while creating databases and running sql queries to avoid any database issues that affect database performance and may crash the system. In this project we avoid common database issues like lack of proper indexing by creating unique attributes of the table and clearly defining primary and foreign keys of each table. All data types are also clearly defined and with appropriate size of those data types. We also kept in mind to use batch querying of sql statements to avoid delay in system performance.

For instance, we use simple integers or strings instead of floats to avoid unnecessary overhead in the database performance. All of the queries where all the data in the table is needed is performed by one single query which retrieves all the data from the table, and then the result is looped through to get the specific data that we need.

CHAPTER 5 : SYSTEM TESTING

All the features in this website are tested extensively. Some of the results are as follow:-

User Test Cases

S.N	Test Cases	Input Test Data	Expected Result	Test Status
1	Register user	Name, email, contact number, password, shipping address	User should be able to register themselves	Pass
2	Login user	email, password	User should be able to login and directed to home page	Pass
3	SQL Injection test	'OR ‘1'='1, 33werwe	User should not be able to log in	Pass
5	SQL Injection test	‘-0||’ , swe2322	User should not be able to login	Pass
6	User can search products by categories	Click on Categories tab	User should be able to view products by categories when the click on categories types	Pass
7	User can add product to the cart and checkout	Add a product to a cart and confirm order	Users should be able to add to cart any number of products and checkout.	Pass
8	Track order	Login as user, add to cart, confirm order and click on Track to get information about the order status	Users should be able to see the order tracking details along with order date, order status and order number.	Pass

Admin Test Cases

S.N	Test Cases	Input Test Data	Expected	Test Status
1	Admin User Login	User Name, password	Admin should be able to login	Pass
2	Manage Categories	Login as an admin and add categories by going to Manage categories page	Admin should be able to add categories to the website	Pass
3	Manage Order	Login as an admin and go to Manage Orders tab and choose option on the dropdown menu on Action column	Admin should be able to change the status of the order	Pass
4	Manage Products	Login as an admin and go to Manage Products tab and click on Add New Product box	Admin should be able to add products to the database.	Pass
5	Edit/Delete categories	Login as an admin and go to Manage Categories tab and click on Edit/Delete symbol on Action column	Admin should be able manage categories by t deleting or editing categories	Pass
6	Edit/Delete Products	Login as an admin and go to Manage Products tab and click on Edit/Delete symbol on	Admin should be able manage products by deleting or editing products information	Pass

		Action column		

Owner Test Cases

S.N	Test Cases	Input Test Data	Expected	Test Status
1	Owner Login	Username, Password	User should be able to login as a owner	Pass
2	Manage Users	Login as an owner and go to Manage Users tab and click on Add New Users button to add new users to the website	Owner should be able to add new users to the website	Pass
3	Manage Admins	Login as an admin and go to the Manage Admin tab and click on Add new Admin box	Owner should be able to add new admin for the web page	Pass
4	Edit/Delete user	Login as an owner and go to Manage Users tab and click on edit/delete symbols in Action column	Owner should be able to delete and edit user information	Pass
5	Edit/Delete admin	Login as an admin and go to the Manage Admin tab and click on delete symbol on Action column	Owner should be able to delete admin	Pass

HR Test Cases

S.N	Test Cases	Input Test Data	Expected	Test Status
1	HR Login	User Name, Password	User should be able to login as an HR employee	Pass
2	Add New Employees	Login with HR credentials and click on Add New Employee	HR should be able to add new employee to the company	Pass
3	Delete/Edit employee information	Login as HR, click on edit/delete symbol on Action column and edit or delete employee information	HR should be able to edit or delete employee information	Pass

CHAPTER 6: WORK PLAN

Work Responsibility:- We both worked equally on all phases of the software development life cycle.

ATITHI:-

1. Authentication and authorization of all views (Admin,User,Hr and Owner)
2. Home page of users view(All frontend part, Category fetch and search functionality)
3. Add to cart of users page(Calculation, session management)
4. Order page of users (View and Track order)
5. Implementation of datatable in every modules
6. Worked on CRUD of managing order page from admin side of project
7. Design of database architecture of user, product, order
8. Addition of 15 product in product page in admin
9. Documentation
10. Testing of all modules
11. Worked on Drawing of ER-Diagram and relational diagram using tool called draw.io

SAILESH:-

1. Worked on profile page for Users
2. Implementation of logout in all modules
3. CRUD operation of HR Role and employee section (Create, Read, Update, Delete)
4. CRUD operation of Owner (Create, Read, Update, Delete)
5. CRUD operation of Category page of admin (Create, Read, Update, Delete)
6. Design of database architecture of hr, owner, employees.
7. Addition of 15 product in product page in admin
8. Documentation
9. Testing of all modules
10. Reformatted unwanted database data

Meetings:- We used to have 2 virtual meetings in a week.

Sunday	8 pm-9 pm (Google meet)
Thursday	8 pm - 9 pm (Google meet)

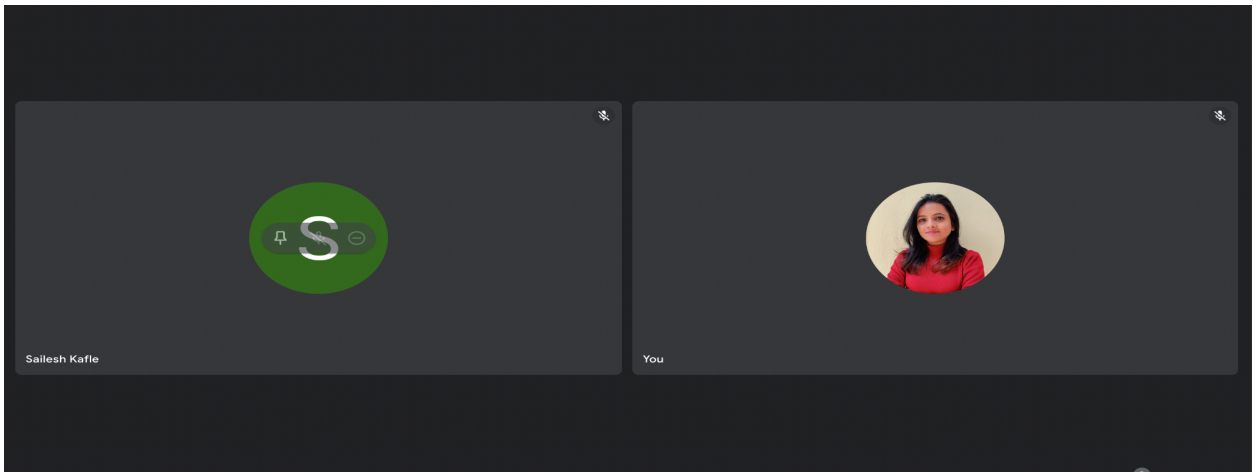


Fig 27:Snapshot of google meet

We used git as a version control to work on the same code simultaneously.

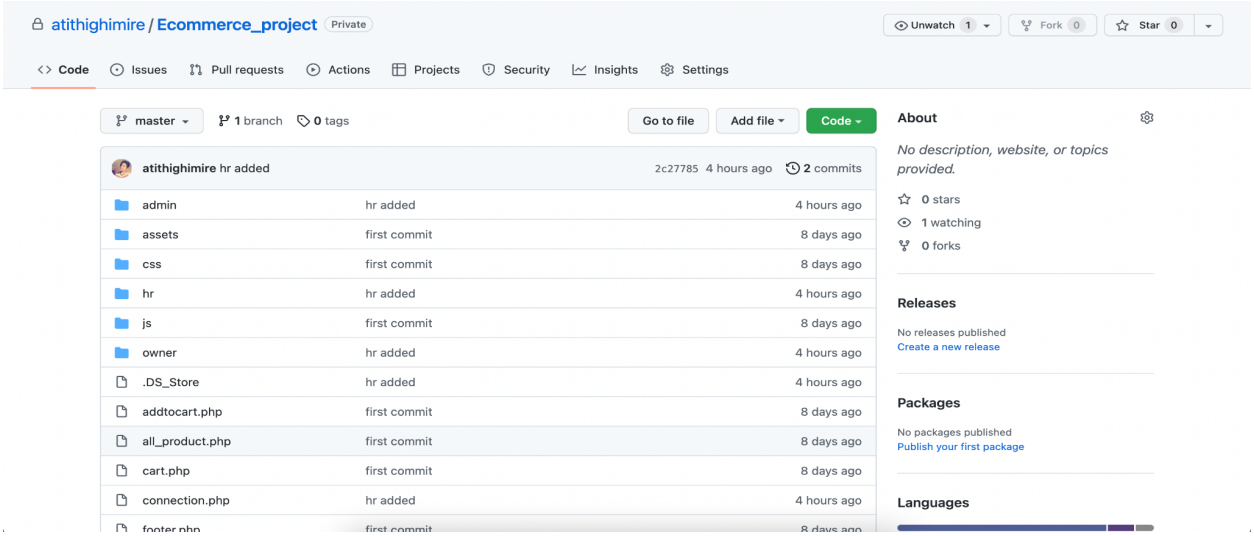


Fig 28: Snapshot of our project git repository.

CHAPTER 7: CONCLUSION, CHALLENGES AND FUTURE DEVELOPMENT

CONCLUSION

The Internet is becoming a more and more important resource in the modern business world, and electronic shopping is becoming more important not only from a business perspective but also from a consumer perspective. Electronic shopping creates new business opportunities for entrepreneurs and enables comparative shopping for customers. Studies show that most consumers in online stores are impulsive and usually decide to stay on their website within the first few seconds. The design of the website is like the inside of a store. If the store looks ugly or looks like hundreds of other stores, customers will probably switch to another site. That's why we designed the project to make it easy for users to navigate, get data, and provide as much feedback as they need.

To meet client needs, we designed a website that is simple and easy to use for an average internet user mainly using PHP, Javascript and MySQL. We also mitigated security risk by password encoding and use of prepared statements for sql queries to avoid sql injection attacks. This project will help to understand how to create an interactive website and the technology used to implement it. The design of the project as a whole including the database design and data flow model shows how the database is built and how the data is accessed and processed from the tables with CRUD operations performed by the user. We learn how to build a website using PHP and Javascript, connect to a database to access data, and modify data and web pages to provide superior service to users. We, both team members got a deep knowledge about how we can create a good experience for a customer with online shopping applications.

CHALLENGES AND FUTURE DEVELOPMENT

There are some challenges to our project mainly due to the time limitation. There are also few things that we think we could do better in the future. Some of the future meaningful extensions of the proposed system are listed below :-

1) The total price of all the items does not update once we update the quantities directly from our cart page.
2) Email verification method while user signs up could be implemented.
3) Libraries like SweetAlert can be used to give user friendly alerts to the customer like when they add products to the customer etc.
4) More user friendly and interactive user interface

APPENDICES

INSERT OPERATION

```
  if (isset($_POST['submit'])) {
      $fullname = $_POST['fullname'];
      $email = $_POST['email'];
      $contactno = $_POST['contactno'];
      $salary = $_POST['salary'];
      $address = $_POST['address'];
       $sql = "INSERT INTO employee (employeeName,email,number,salary,address) VALUES (?, ?, ?,?,?)";
      $stmt = $conn->prepare($sql);
      $stmt->bind_param("sssss", $fullname,$email, $contactno, $salary, $address);
```

```
    if ($stmt->execute()) {
         echo "<script type='text/javascript'>
       alert('Employee has been added !!!');
        window.location='manageEmployee.php';
    </script>";
       exit();
    } else {
        echo "<script>alert('Not register something went worng');</script>";
       echo "Error: " . $sql . mysqli_error($conn);
        exit();
    }
  }
```

EDIT OPERATION

```
 if (isset($_POST['edit'])) {

    $fullname = $_POST['fullname'];
    $email = $_POST['email'];
    $contactno = $_POST['contactno'];
    $salary = $_POST['salary'];
    $address = $_POST['address'];
    $id = $_POST['employeeid'];

    $sql = "UPDATE  employee set employeeName = ? ,email= ? ,number =? ,salary=? ,address
=?  WHERE employeeid = ? ";
    $stmt = $conn->prepare($sql);
    $stmt->bind_param("ssssss", $fullname,$email, $contactno, $salary, $address,$id);
```

```
if ($stmt->execute()) {
          echo "<script type='text/javascript'>
        alert('Employee has been edited !!!');
         window.location='manageEmployee.php';
    </script>";
        exit();
    } else {
         echo "<script>alert('Not register something went worng');</script>";
        echo "Error: " . $sql . mysqli_error($conn);
         exit();
    }
 }
```

DELETE OPERATION

```
if (isset($_POST['deleteItem'])) {
     $id = $_POST['employeeid'];
     $sql = "DELETE FROM employee WHERE employeeid = ? ";
     $stmt = $conn->prepare($sql);
     $stmt->bind_param("s",$id);
    if ($stmt->execute()) {
          echo "<script type='text/javascript'>
        alert('Employee has been deleted !!!');
         window.location='manageEmployee.php';
    </script>";
        exit();
    } else {
         echo "<script>alert('Something went worng');</script>";
        echo "Error: " . $sql . mysqli_error($conn);
         exit();
```

```
    }
}
```

SELECT OPERATION

```
<tbody>
    <?php
    $query = "select * from category";
    $result = mysqli_query($conn, $query);


    while ($row = mysqli_fetch_array($result)) {
    ?>
     <tr>
       <td><?= $row['id']; ?></td>
       <td><?= $row['categoryName']; ?></td>
       <td><?= $row['categoryDescription']; ?></td>
       <td><?= $row['creationDate']; ?></td>
       <td>

                    <a class="edit" name="edit" data-target="#editCategoriesModal" id="edit" data-id="<?php echo $row["id"]; ?>" data-toggle="modal">
                <i class="material-icons" data-toggle="tooltip" title="Edit">&#xE254;</i></a>
                    <a href="#deleteCategory" class="delete" data-toggle="modal" id="delete" data-id="<?php echo $row["id"]; ?>"><i class="material-icons" data-toggle="tooltip" title="Delete">&#xE872;</i></a>
       </td>
     </tr>
```

```
<?php $cnt = $cnt + 1;
} ?>

</tbody>
```

SQL CODE

```
-- phpMyAdmin SQL Dump
-- version 4.9.7
-- https://www.phpmyadmin.net/
--
-- Host: localhost:3306
-- Generation Time: May 10, 2022 at 10:51 PM
-- Server version: 5.7.38
-- PHP Version: 7.4.29

SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";
SET AUTOCOMMIT = 0;
START TRANSACTION;
SET time_zone = "+00:00";


/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8mb4 */;

--
-- Database: `ghimira1_raritan_valley_ecom`
--

-- --------------------------------------------------------

--
```

```sql
-- Table structure for table `admin`
--

CREATE TABLE `admin` (
 `id` int(11) NOT NULL,
 `username` varchar(255) NOT NULL,
 `password` varbinary(255) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--
-- Dumping data for table `admin`
--

INSERT INTO `admin` (`id`, `username`, `password`) VALUES
(1, 'admin', 0x32313233326632393761353761356137343338393461306534613830316663333);

-- --------------------------------------------------------

-
-- Table structure for table `category`
--

CREATE TABLE `category` (
 `id` int(11) NOT NULL,
 `categoryName` varchar(255) DEFAULT NULL,
 `categoryDescription` longtext,
 `creationDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP
) ENGINE=MyISAM DEFAULT CHARSET=latin1;

--
-- Dumping data for table `category`
--

INSERT INTO `category` (`id`, `categoryName`, `categoryDescription`, `creationDate`)
VALUES
(1, 'Women Clothes', 'All Womes Clothes', '2022-04-20 17:28:17'),
(2, 'Leather', 'All leathers items', '2022-04-20 17:28:29'),
(3, 'Kids', 'All kids items', '2022-04-20 17:28:39'),
(4, 'Mens Clothes', 'All Mens Clothes', '2022-04-20 17:28:53'),
(7, 'Tie', 'All Mens tie', '2022-04-22 23:42:34'),
(8, 'Shoes', 'All Shoes', '2022-04-22 23:42:46');
```

```
-- --------------------------------------------------------

--
-- Table structure for table `employee`
--

CREATE TABLE `employee` (
 `employeeid` int(11) NOT NULL,
 `employeeName` varchar(255) DEFAULT NULL,
 `email` varchar(255) DEFAULT NULL,
 `number` bigint(11) DEFAULT NULL,
 `salary` int(255) DEFAULT NULL,
 `address` varchar(255) DEFAULT NULL,
 `regDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `employee`
--

INSERT INTO `employee` (`employeeid`, `employeeName`, `email`, `number`, `salary`,
`address`, `regDate`) VALUES
(1, 'Tom Cruise', 'tomcruise@gmail.com', 12222222222, 100000, '42818 Pamplin Terrace',
'2022-05-10 21:41:13'),
(3, 'Yolanda Gentry', 'lupiny@mailinator.com', 32, 98000, 'Enim reiciendis null',
'2022-05-11 01:07:40');

-- --------------------------------------------------------

--
-- Table structure for table `hr`
--

CREATE TABLE `hr` (
 `id` int(11) NOT NULL,
 `username` varchar(255) NOT NULL,
 `password` varchar(255) DEFAULT NULL
) ENGINE=MyISAM DEFAULT CHARSET=latin1;

--
-- Dumping data for table `hr`
--
```

```
INSERT INTO `hr` (`id`, `username`, `password`) VALUES
(1, 'hello', '4435a4e88e984616a91c109524caf662'),
(2, 'helloHr', '8fedccbda650268c42dba12b791e3036'),
(3, 'hr', 'adab7b701f23bb82014c8506d3dc784e');

-- --------------------------------------------------------

--
-- Table structure for table `orders`
--

CREATE TABLE `orders` (
 `orderId` int(11) NOT NULL,
 `userId` int(11) DEFAULT NULL,
 `productId` varchar(255) DEFAULT NULL,
 `quantity` int(11) DEFAULT NULL,
 `orderDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP,
 `orderStatus` varchar(55) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--
-- Dumping data for table `orders`
--

INSERT INTO `orders` (`orderId`, `userId`, `productId`, `quantity`, `orderDate`,
`orderStatus`) VALUES
(7, 1, '16', 1, '2022-05-10 20:36:28', 'inProcess'),
(8, 1, '18', 1, '2022-05-10 20:36:28', NULL),
(9, 21, '18', 1, '2022-05-10 21:47:17', NULL),
(10, 21, '25', 1, '2022-05-10 22:52:20', NULL),
(11, 21, '41', 1, '2022-05-10 22:52:20', NULL),
(12, 21, '49', 1, '2022-05-10 22:52:20', NULL);

-- --------------------------------------------------------

--
-- Table structure for table `owner`
--

CREATE TABLE `owner` (
 `id` int(11) NOT NULL,
```

```
 `username` varchar(255) NOT NULL,
 `password` varbinary(255) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--
-- Dumping data for table `owner`
--

INSERT INTO `owner` (`id`, `username`, `password`) VALUES
(1, 'owner', 0x373231323263653936626665633636653233393664326532353232356437306 1);

-- --------------------------------------------------------

--
-- Table structure for table `product`
--

CREATE TABLE `product` (
 `id` int(11) NOT NULL,
 `categoryName` int(11) NOT NULL,
 `productName` varchar(255) DEFAULT NULL,
 `price` int(11) DEFAULT NULL,
 `description` longtext,
 `image` text,
 `quantity` varchar(255) DEFAULT NULL,
 `postingDate` timestamp NULL DEFAULT CURRENT_TIMESTAMP,
 `updationDate` varchar(255) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--
-- Dumping data for table `product`
--

INSERT INTO `product` (`id`, `categoryName`, `productName`, `price`, `description`,
`image`, `quantity`, `postingDate`, `updationDate`) VALUES
(16, 1, 'White T-shirt', 40, 'White T-shirt ',
'milada-vigerova-p8Drpg_duLw-unsplash.jpg', '9', '2022-05-10 19:24:21', NULL),
(18, 1, 'Red gown', 20, 'High Quality Red Gown',
'ussama-azam-xgNSlx7DjYM-unsplash.jpg', '18', '2022-05-10 19:33:17', NULL),
(19, 1, 'Black Gown ', 50, 'Black Gown ',
'roman-holoschchuk-DPOPc2vhUww-unsplash.jpg', '10', '2022-05-10 19:34:18', NULL),
```

```
(21, 1, 'Yellow Gown ', 100, 'Yellow Gown ', 'pexels-engin-akyurt-3687550.jpg', '10',
'2022-05-10 19:39:02', NULL),
(24, 3, 'Cotton clothes', 80, 'cotton clothes', 'pexels-amina-filkins-5559986
(1).jpg', '10', '2022-05-10 19:46:56', NULL),
(25, 4, 'Grey Hoodie', 30, 'Grey Hoodie', 'pexels-klaus-nielsen-6303682.jpg', '9',
'2022-05-10 19:47:03', NULL),
(26, 3, 'Blue one piece', 35, 'Blue one piece', 'pexels-katie-e-3671111 (1).jpg',
'20', '2022-05-10 19:49:54', NULL),
(28, 3, 'White Outer', 30, 'White Outer', 'pexels-pixabay-35018 (1).jpg', '10',
'2022-05-10 19:51:52', NULL),
(29, 3, 'Red shirt', 25, 'Redshirt', 'pexels-migs-reyes-4450373 (1).jpg', '20',
'2022-05-10 19:52:39', NULL),
(30, 4, 'Yellow T-Shirt', 30, 'Yellow T-Shirt', 'pexels-breston-kenya-7431243.jpg',
'10', '2022-05-10 19:54:26', NULL),
(32, 3, 'New born dress', 50, 'Newborn dress',
'mediamodifier-fdPlZXc-ZwU-unsplash.jpg', '10', '2022-05-10 19:59:44', NULL),
(33, 7, 'Blue Tie', 20, 'Blue Tie', 'pexels-photo-45055.jpeg', '20', '2022-05-10
20:00:20', NULL),
(34, 7, 'Red bow tie', 40, 'Red bow tie', 'red bow.jpeg', '20', '2022-05-10 20:01:35',
NULL),
(39, 7, 'Green Bow tie', 35, 'Green Bow tie', 'pexels-inna-lesyk-566453 (1).jpg',
'20', '2022-05-10 20:10:17', NULL),
(41, 7, 'Dark Blue ', 40, 'Dark Blue ', 'benjamin-rascoe-JXf2e0nb_-o-unsplash.jpg',
'19', '2022-05-10 20:18:25', NULL),
(42, 7, 'Animal Print', 40, 'Animal Print', 'toyamakanna-oZFqTBuQw_k-unsplash.jpg',
'20', '2022-05-10 20:20:32', NULL),
(43, 2, 'Bag', 200, 'Leather Bag', 'alvaro-serrano-pFLNV4gkXsc-unsplash.jpg', '20',
'2022-05-10 20:24:18', NULL),
(44, 2, 'Purse', 200, 'Leather Purse', 'ethan-rougon-oIlix2slmsI-unsplash.jpg', '20',
'2022-05-10 20:24:45', NULL),
(45, 2, 'Jacket', 300, 'Leather Jacket', 'lea-ochel-nsRBbE6-YLs-unsplash.jpg', '20',
'2022-05-10 20:25:09', NULL),
(46, 2, 'Boot', 400, 'Leather Boot', 'mostafa-mahmoudi-3OZr-hLbsq0-unsplash.jpg',
'20', '2022-05-10 20:25:33', NULL),
(47, 2, 'Leather Shoes', 500, 'Leather Shoes', 'noah-smith-LkuH3Txi_gs-unsplash.jpg',
'20', '2022-05-10 20:26:11', NULL),
(48, 4, 'Black Coat', 400, 'Black Coat',
'gez-xavier-mansfield-b34E1vh1tYU-unsplash.jpg', '20', '2022-05-10 20:28:03', NULL),
(49, 4, 'Jeans Jacket', 100, 'Jeans Jacket', 'caio-coelho-QRN47la37gw-unsplash.jpg',
'9', '2022-05-10 20:28:30', NULL),
(50, 4, 'Orange Jacket', 75, 'Orange Jacket', 'tobias-tullius-Fg15LdqpWrs-unsplash
(1).jpg', '10', '2022-05-10 20:29:41', NULL),
```

```
(51, 8, 'Nike Air-2', 200, 'Nike Air-2', 'ryan-plomp-jvoZ-Aux9aw-unsplash.jpg', '20',
'2022-05-10 20:31:51', NULL),
(52, 8, 'Blue Heel-1', 100, 'Blue Heel-1', 'mohammad-metri-E-0ON3VGrBc-unsplash.jpg',
'10', '2022-05-10 20:32:36', NULL),
(53, 8, 'Nike Air-2021', 350, 'Nike Air-2021',
'joseph-barrientos-4qSb_FWhHKs-unsplash.jpg', '10', '2022-05-10 20:33:08', NULL),
(54, 8, 'White heel-2', 200, 'White heel-2', 'marcus-lewis-87DgFV9SOc4-unsplash.jpg',
'10', '2022-05-10 20:33:30', NULL),
(55, 8, 'Green Nike -2022', 250, 'Green Nike -2022',
'usama-akram-kP6knT7tjn4-unsplash.jpg', '10', '2022-05-10 20:34:09', NULL);

-- --------------------------------------------------------

--
-- Table structure for table `users`
--

CREATE TABLE `users` (
 `id` int(11) NOT NULL,
 `name` varchar(255) DEFAULT NULL,
 `email` varchar(255) DEFAULT NULL,
 `contactno` bigint(11) DEFAULT NULL,
 `password` varchar(255) DEFAULT NULL,
 `shippingAddress` longtext,
 `regDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `users`
--

INSERT INTO `users` (`id`, `name`, `email`, `contactno`, `password`,
`shippingAddress`, `regDate`) VALUES
(1, 'Atithi Ghimire', 'atithighimire99@gmail.com', 5713523090,
'16d7a4fca7442dda3ad93c9a726597e4', '55 bluegrass blvd', '2022-04-20 02:25:26'),
(16, 'Sailesh Kafle', 'saileshkafle@gmail.com', 4431231234,
'5ec55075711a74073ce73d2b9a0ea1b4', '24460 Juniper Wood Terrace', '2022-05-02
02:14:22'),
(21, 'Ian kafle', 'iankafle@gmail.com', 4435404546,
'b6e2de5ed3c3a74dee31358ed7b84539', '42818 Pamplin Terrace', '2022-05-10 18:58:51'),
```

```
(22, 'Anima Ghimire', 'annyghimire@gmail.com', 4435404546,
'25bc636f9e4a6dda3db066885741e531', '24460 Juniper Wood Terrace', '2022-05-10
22:18:28');

--
-- Indexes for dumped tables
--

--
-- Indexes for table `admin`
--
ALTER TABLE `admin`
 ADD PRIMARY KEY (`id`);

--
-- Indexes for table `category`
--
ALTER TABLE `category`
 ADD PRIMARY KEY (`id`);

--
-- Indexes for table `employee`
--
ALTER TABLE `employee`
 ADD PRIMARY KEY (`employeeid`);

--
-- Indexes for table `hr`
--
ALTER TABLE `hr`
 ADD PRIMARY KEY (`id`);

--
-- Indexes for table `orders`
--
ALTER TABLE `orders`
 ADD PRIMARY KEY (`orderId`);

--
-- Indexes for table `product`
--
ALTER TABLE `product`
```

```
 ADD PRIMARY KEY (`id`);


--
-- Indexes for table `users`
--
ALTER TABLE `users`
 ADD PRIMARY KEY (`id`);


--
-- AUTO_INCREMENT for dumped tables
--


--
-- AUTO_INCREMENT for table `admin`
--
ALTER TABLE `admin`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=2;


--
-- AUTO_INCREMENT for table `category`
--
ALTER TABLE `category`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=9;


--
-- AUTO_INCREMENT for table `employee`
--
ALTER TABLE `employee`
 MODIFY `employeeid` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=4;


--
-- AUTO_INCREMENT for table `hr`
--
ALTER TABLE `hr`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=4;


--
-- AUTO_INCREMENT for table `orders`
--
ALTER TABLE `orders`
 MODIFY `orderId` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=13;
```

```
--
-- AUTO_INCREMENT for table `product`
--
ALTER TABLE `product`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=56;

--
-- AUTO_INCREMENT for table `users`
--
ALTER TABLE `users`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=23;
COMMIT;

/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
```

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