

ABSTRACT

Online Retail Management Software is a software application to be developed for the use in any retail unit/shop. The software aims at computerizing all the activities related to the retail unit. It should be a comprehensive one to cover all the aspect of a retail shop.

The application has 13 modules consisting of several sub modules each:

Module 1: Supplier/Creditor Detail

Module 2: Customer/Debtor Detail

Module 3: Item Details

Module 4: Purchase

Module 5: Purchase Return

Module 6: Stock Maintenance

Module 7: Order Processing

Module 8: Sales

Module 9: Sales Return

Module 10: Accounts

Module 11: Query

Module 12: Reports

Module 13: Feedback

INTRODUCTION

Online Retail Management System is a form of electronic shopping store where the buyer is directly online to the seller's computer usually via the internet. There is no intermediary service. The sale and purchase transaction is completed electronically and interactively in real-time. The development of this new system contains the following activities, which try to develop on-line application by keeping the entire process in the view of database integration approach. User gets its email id and password to access their account.

Administrator of Online Retail Management System has multiple features such as Add, Delete, Update shopping Items.

Customer of Online Retail Management System has multiple features such as Sign up, Login, Shop online, Get an invoice.

Features of Online Retail Management System:

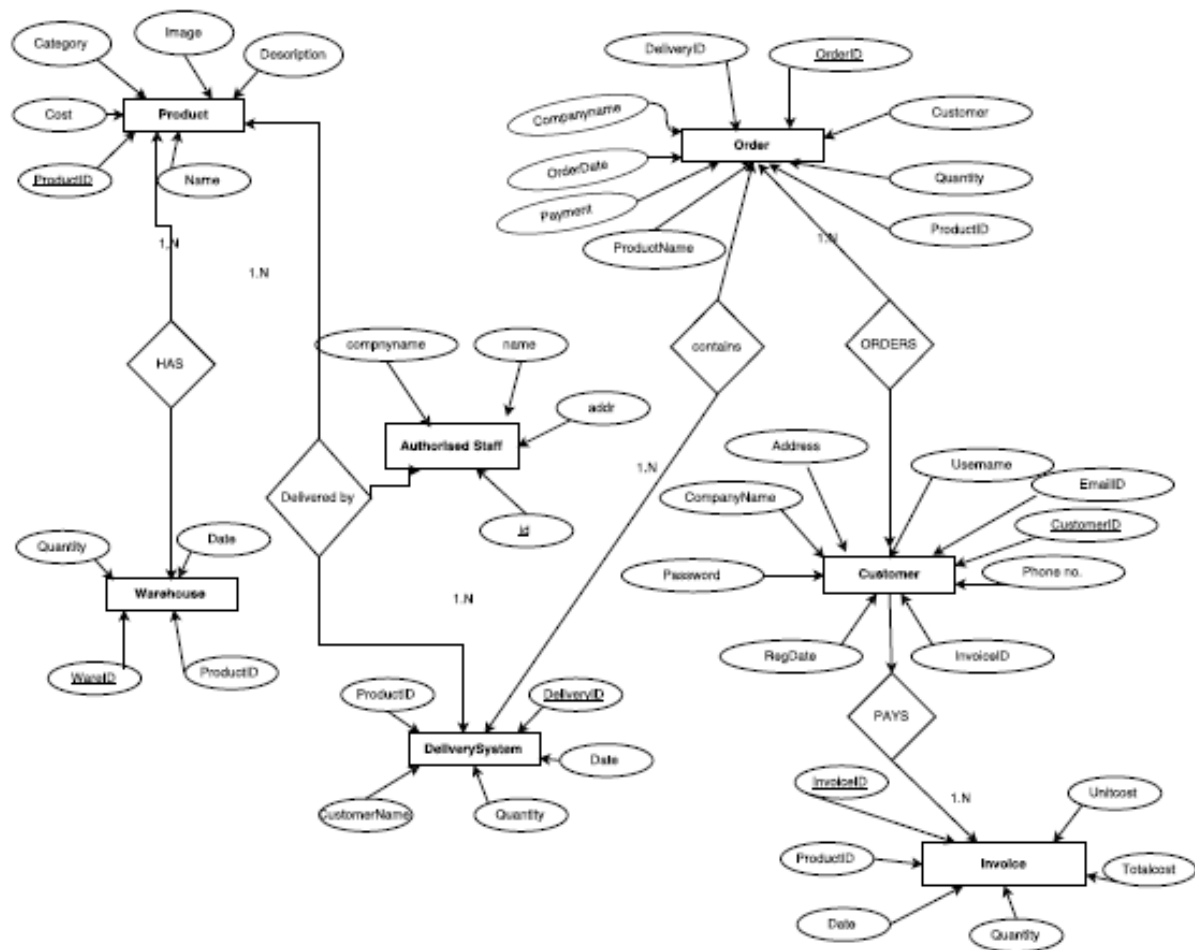
1. Secure registration and profile management facilities for Customers.
2. Browsing through the e-Mall to see the items that are there in each category of products like Apparel, Kitchen accessories, Bath accessories, Food items etc.
3. Creating a Shopping cart so that customer can Shop N number of items and checkout finally with the entire shopping cart

4. Customers should be able to mail the Shop about the items they would like to see in the Shop
5. Secured mechanism for checking out from the Shop (Credit card verification mechanism).
Updates to customers about the Recent Items in the Shop.
6. Uploading Most Purchased Items in each category of products in the Shop like Apparel, Kitchen accessories, Bath accessories, Food items etc.

SQL

SQL stands for Structured Query Language. SQL is used to communicate with a database. According to ANSI (American National Standards Institute), it is the standard language for relational database management systems. SQL statements are used to perform tasks such as update data on a database, or retrieve data from a database. Some common relational database management systems that use SQL are: Oracle, Sybase, Microsoft SQL Server, Access, Ingres, etc. Although most database systems use SQL, most of them also have their own additional proprietary extensions that are usually only used on their system. However, the standard SQL commands such as "Select", "Insert", "Update", "Delete", "Create", and "Drop" can be used to accomplish almost everything that one needs to do with a database. This tutorial will provide you with the instruction on the basics of each of these commands as well as allow you to put them to practice using the SQL Interpreter.

ER DIAGRAM



MODULES

Our project consists of several modules namely,

- Administrator
 - Add a product
 - Modify a product
 - Delete a product
 - Search a product
- Customers
 - Login
 - Sign up
 - Shop products
 - Generate an invoice

Now we are going to see the various queries used in building these modules individually.

ESTABLISH CONNECTION WITH THE DATABASE:

```
$row_count=0;
$host="localhost";
$user="harsh";
$password="";
$database="mydb";
$connect=mysqli_connect($host,$user,$password,$database);
if($connect)
{
    //echo "<p align='center'>Connected to the server...!!";
}
else
die(mysqli_error());

/*$select = mysql_select_db("mydb");
if($select)
{
    //echo "<p align='center'>Selected Database...!!";
}
else
die(mysql_error());*/
```

ADMINISTRATOR:

1) Add a product:

```
$create = "CREATE TABLE product(
    p_id VARCHAR(30) PRIMARY KEY,
    p_name VARCHAR(30) NOT NULL,
    p_cost INT(6) NOT NULL,
    p_category VARCHAR(30) NOT NULL,
    p_quantity INT(4) NOT NULL,
    p_description VARCHAR(150) NOT NULL
)";

$result = mysqli_query($connect,$create);
if($result)
    echo " Table created...!!";
else
    die(mysqli_error($connect));

$insert = "INSERT INTO product (p_name, p_cost, p_category, p_quantity, p_description)
VALUES ('$pname', '$cost', '$category','$quantity', '$description')";
$result = mysqli_query($connect,$insert);
if($result)
    echo " Your data is entered into the database...!!";
else
{
    // echo "Enter a unique Product ID";
    // exit();
    die(mysqli_error($connect));
}
```

2) Modify a product

```

$query = "SELECT*
        FROM product
        WHERE id='$mpid1'";

$result = mysqli_query($connect,$query) or die(mysqli_error());

while($rows = mysqli_fetch_assoc($result))
{
    $row_count++;
    extract($rows);

$update="UPDATE product
        SET id='$mpid2',
            p_name = '$mpname' ,
            p_cost = '$mcost' ,
            p_category = '$mcategory' ,
            p_quantity = '$mquantity' ,
            p_description = '$mdescription'
        WHERE id = '$mpid3' ";
$result=mysqli_query($connect,$update) or die(mysqli_error($connect));
if($result)
echo " <p align='center'>Your data is modified into the database...!!";
else
die(mysqli_error());

```

3) Delete a product

```

$query = "SELECT*
        FROM product
        WHERE p_id='$pid'";

$result = mysqli_query($connect,$query) or die(mysqli_error());

$delete = "DELETE FROM product
        WHERE p_id = '$pid' ";
$result = mysqli_query($connect,$delete);
if($result)
{
echo "<p align='center'>Record Deleted...!!</p>";
}

```

4) Search a product

Searching is done based on productID,product Name,productCategory etc.

For example, if searching is done based on product name then the query would be:

```

$query = "SELECT*
        FROM product
        WHERE p_name='$spname'";

$result = mysqli_query($connect,$query) or die(mysqli_error());

```

CUSTOMERS

1) Sign up

```
$create = "CREATE TABLE customer(  
    fname VARCHAR(30) NOT NULL,  
    lname VARCHAR(30) NOT NULL,  
    username VARCHAR(30) PRIMARY KEY NOT NULL,  
    email VARCHAR(30) NOT NULL,  
    phone BIGINT(10) NOT NULL,  
    password VARCHAR(50) NOT NULL,  
    address VARCHAR(50) NOT NULL  
    )";  
  
$result = mysqli_query($connect,$create);  
if($result)  
    echo"table created";  
else  
    die(mysqli_error($connect));  
  
$data = "INSERT INTO customer VALUES  
('$fname','$lname','$username','$email','$phone','$password','$address')";  
  
$result = mysqli_query($connect,$data);  
if($result)  
{  
    echo "<p align='center'>Congratulations!! Your account have been created!!!<br>
```

2) Login

```
$myusername = mysqli_real_escape_string($connect,$_POST['username']);  
$mypassword = mysqli_real_escape_string($connect,$_POST['password']);  
  
// Retrieve username and password from database according to user's input  
$login = mysqli_query($connect, " SELECT email FROM customer WHERE username = '$myusername'  
and password = '$mypassword' ") or die(mysqli_error($connect));
```

3) Shop products

Displaying products categorywise

```
$query = "SELECT * FROM product WHERE p_category = 'beverages';"  
$result = mysqli_query($connect,$query) or die(mysqli_error());
```

```
$query = "SELECT * FROM product WHERE p_category = 'snacks';"  
$result = mysqli_query($connect,$query) or die(mysqli_error());
```

```
$query = "SELECT * FROM product WHERE p_category = 'Fruits&Vegetables';"  
$result = mysqli_query($connect,$query) or die(mysqli_error());
```

```
$query = "SELECT * FROM product WHERE p_category = 'grocery';"  
$result = mysqli_query($connect,$query) or die(mysqli_error());
```

```
$query = "SELECT * FROM product WHERE p_category = 'others';"  
$result = mysqli_query($connect,$query) or die(mysqli_error());
```

Also “Recommendations” have been provided based on the past purchases of a particular customer:

```
$query = "SELECT *  
FROM product  
WHERE p_name = (SELECT product_name FROM invoice WHERE customer_email = '$email'  
AND product_quantity = (SELECT max(product_quantity) FROM invoice WHERE customer_email = '$email'))";
```

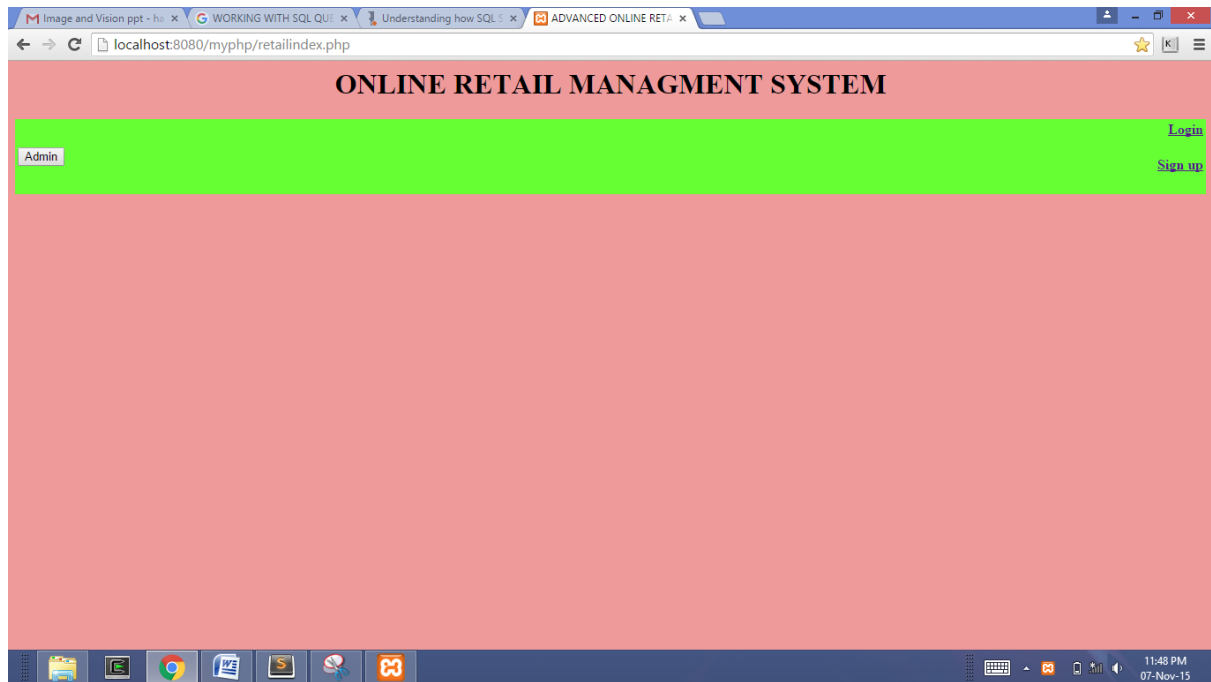
4) Generate an invoice

```
$create = "CREATE TABLE invoice(  
  
    order_date DATE NOT NULL,  
    customer_email VARCHAR(50) NOT NULL,  
    product_name VARCHAR(30) NOT NULL,  
    product_category VARCHAR(40) NOT NULL,  
    product_cost INT(10) NOT NULL,  
    product_quantity INT(10) NOT NULL,  
    total_cost int(10) NOT NULL  
  
);"  
  
$result = mysqli_query($connect,$create);  
if($result)  
    echo"table created";  
else  
    die(mysqli_error($connect));
```

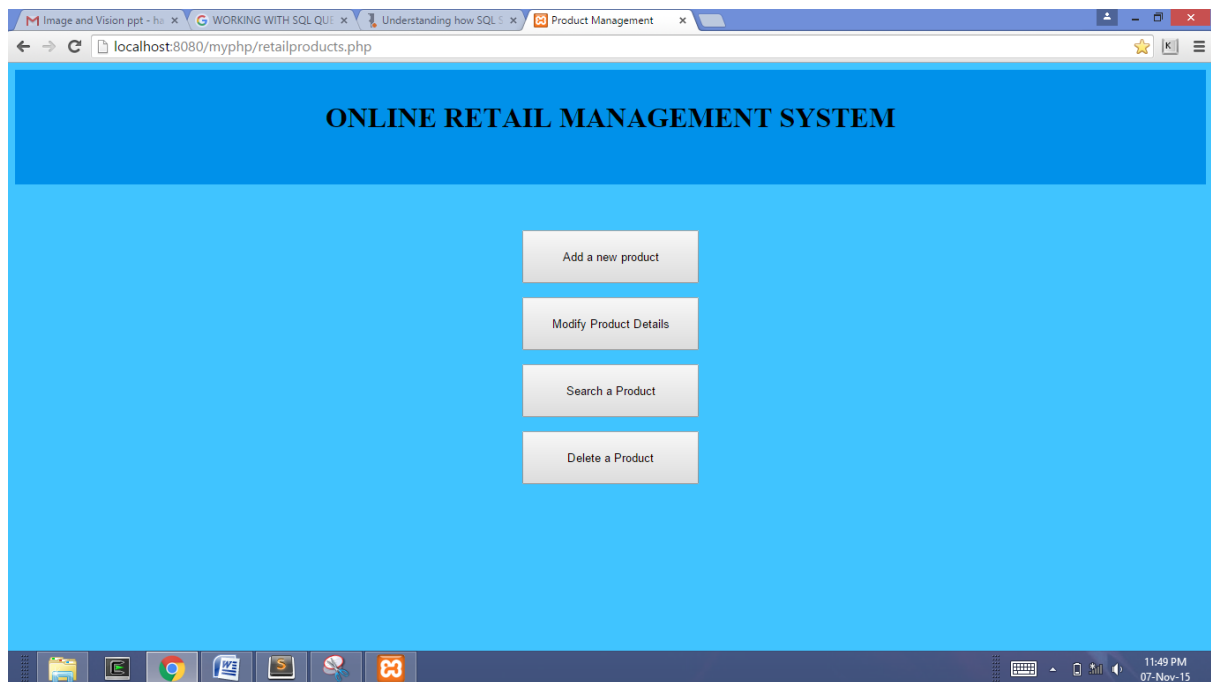
```
$query = "SELECT*  
FROM product  
WHERE id='$myid';"  
$result = mysqli_query($connect,$query) or die(mysqli_error());  
  
while($rows = mysqli_fetch_assoc($result))  
{  
    extract($rows);  
    $total = $p_cost * $myquantity;  
  
    $query = "INSERT INTO invoice (order_date,customer_email,product_name,product_category,  
product_cost,product_quantity,total_cost) VALUES  
(now(),'$email','$p_name','$p_category','$p_cost,$myquantity,$total)";  
    $result = mysqli_query($connect,$query);  
    if($result)  
        echo"RECORD ENTERED!!!";  
    else  
        die(mysqli_error($connect));  
}
```

OUTCOME

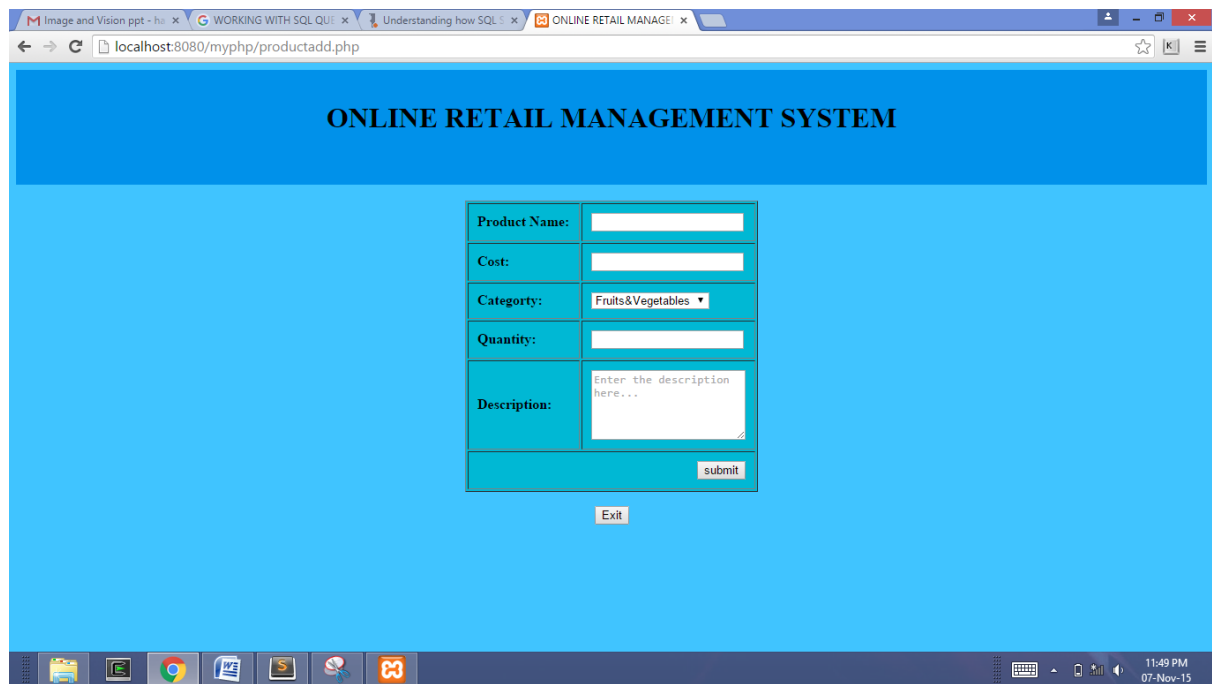
Index Page:



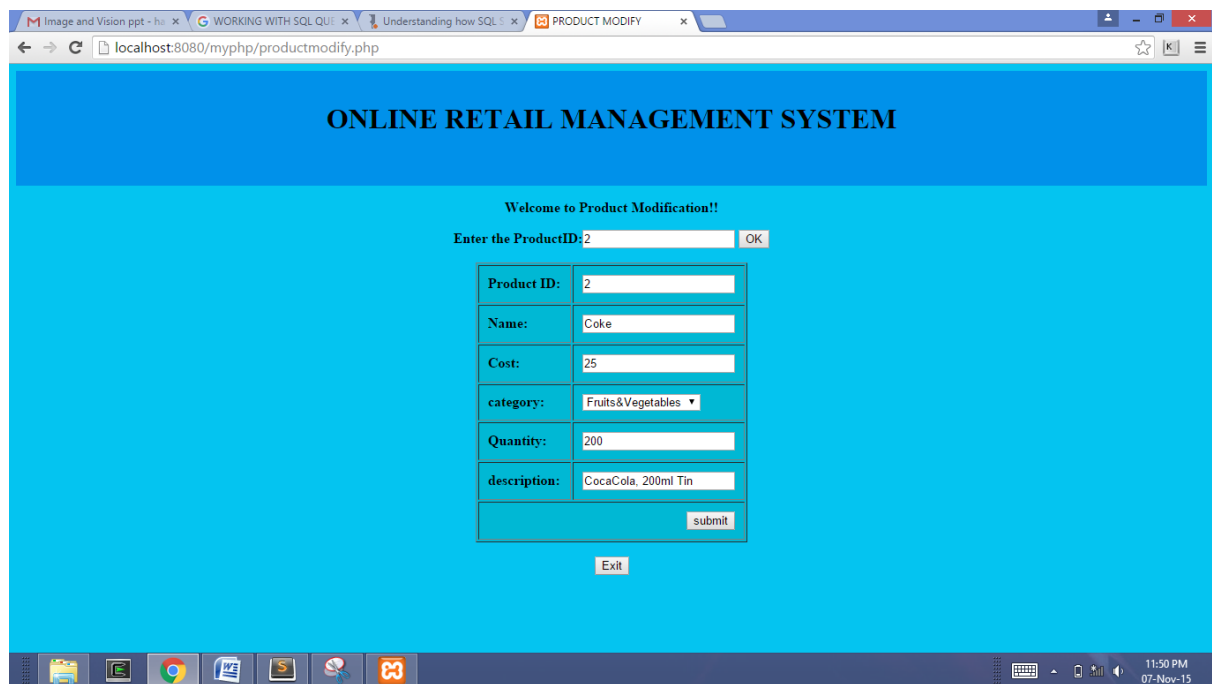
Admin Portal:



Add a product:



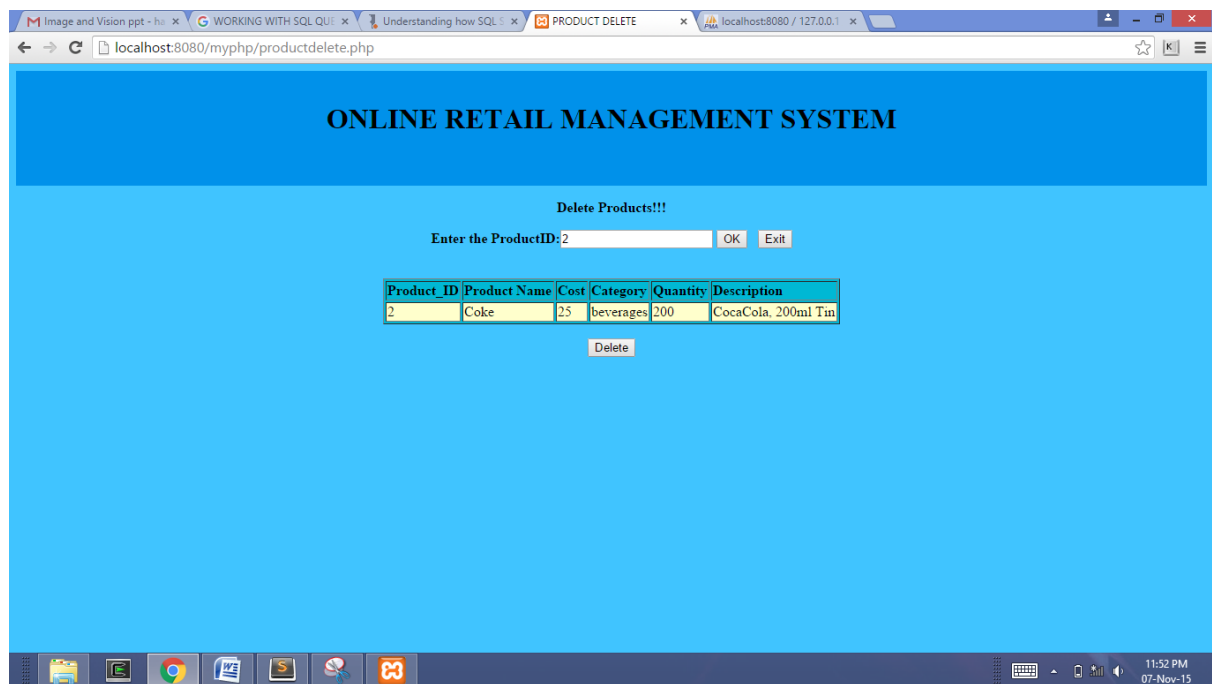
Modify a product:



Search a product:

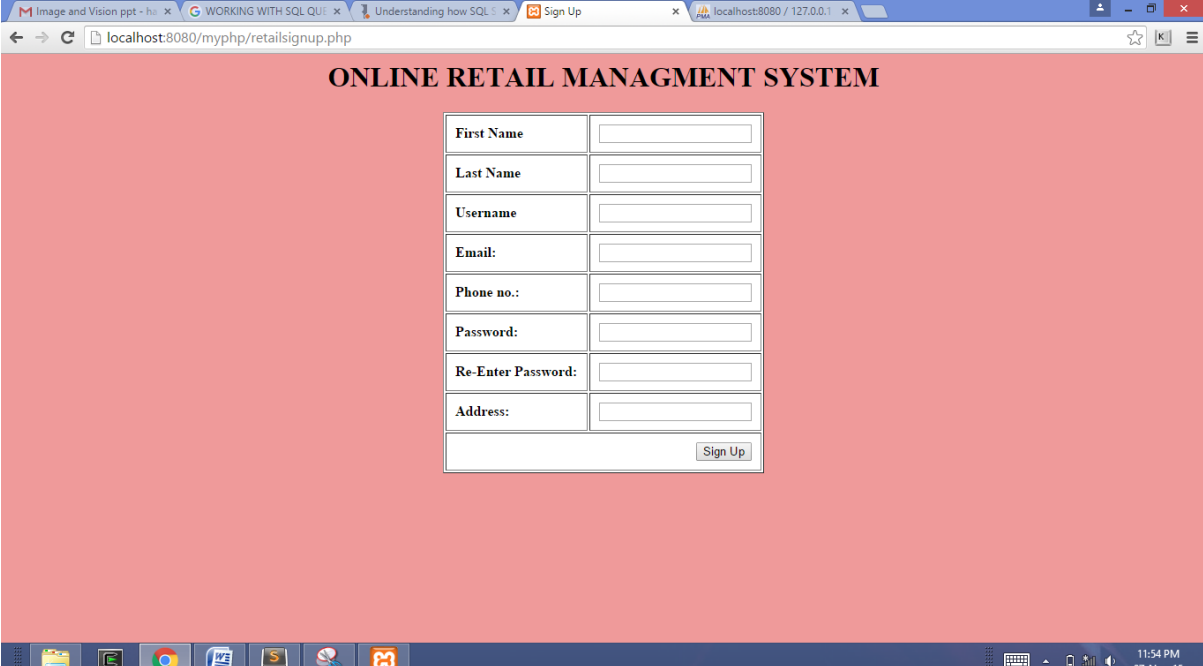


Delete a product:



CUSTOMERS:

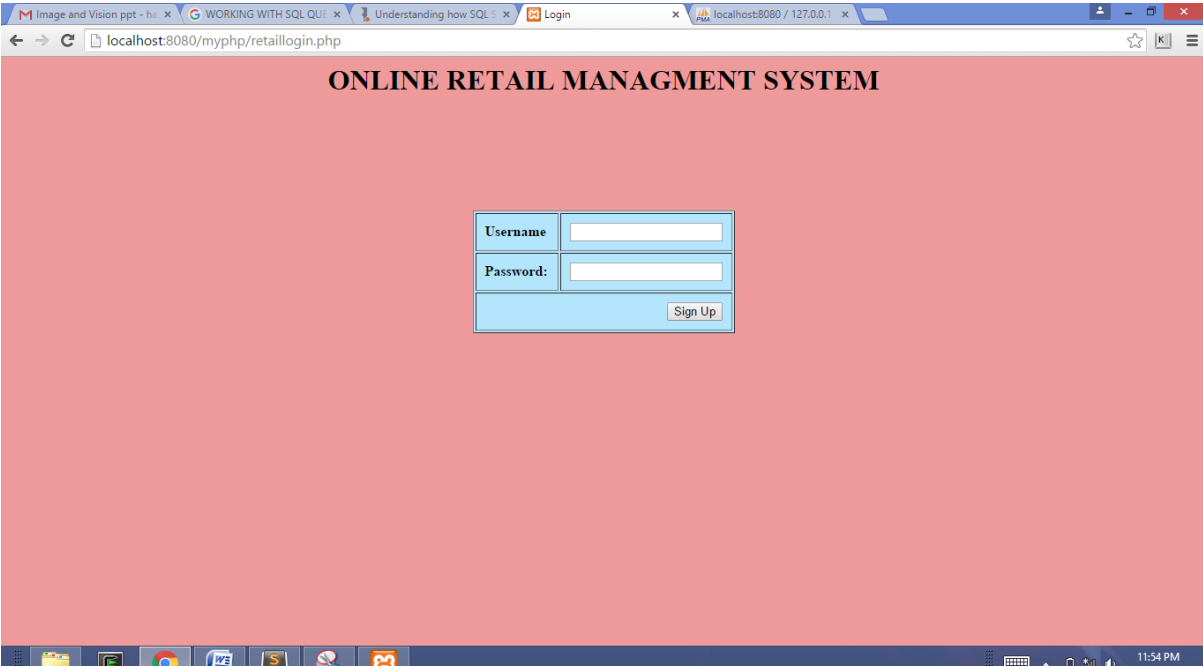
- **Sign up**



ONLINE RETAIL MANAGEMENT SYSTEM

First Name	<input type="text"/>
Last Name	<input type="text"/>
Username	<input type="text"/>
Email:	<input type="text"/>
Phone no.:	<input type="text"/>
Password:	<input type="password"/>
Re-Enter Password:	<input type="password"/>
Address:	<input type="text"/>
<input type="button" value="Sign Up"/>	

- **Login**



ONLINE RETAIL MANAGEMENT SYSTEM

Username	<input type="text"/>
Password:	<input type="password"/>
<input type="button" value="Sign Up"/>	

- Product shop

ONLINE RETAIL MANAGEMENT SYSTEM

Logout

Welcome harsh
harsh_v966@yahoo.com

BEVERAGES

Product Name	Cost	Description	Wanna Buy??	Quantity
Sprite	25/-	Cold Drink, 200ml Tin	<input type="checkbox"/>	
Coke	25/-	CocaCola, 200ml Tin	<input type="checkbox"/>	
Fanta	25/-	Cold drink, CocaCola, 200ml Tin	<input type="checkbox"/>	
Coke	75/-	CocaCola, 2liter Bottle	<input type="checkbox"/>	

SNACKS

Product Name	Cost	Description	Wanna Buy??	Quantity
kurkure	10/-	Fried And Spicy	<input type="checkbox"/>	
Lays blue	18/-	Potato Chips, Spicy	<input type="checkbox"/>	
Onion Rings	20/-	Haldiram, Fried, 250gm	<input type="checkbox"/>	
Nachos	85/-	spicy and tasty	<input type="checkbox"/>	
Currypuffs	110/-	Tasty and healthy	<input type="checkbox"/>	

FRUITS AND VEGETABLES

- Invoice

ONLINE RETAIL MANAGEMENT SYSTEM

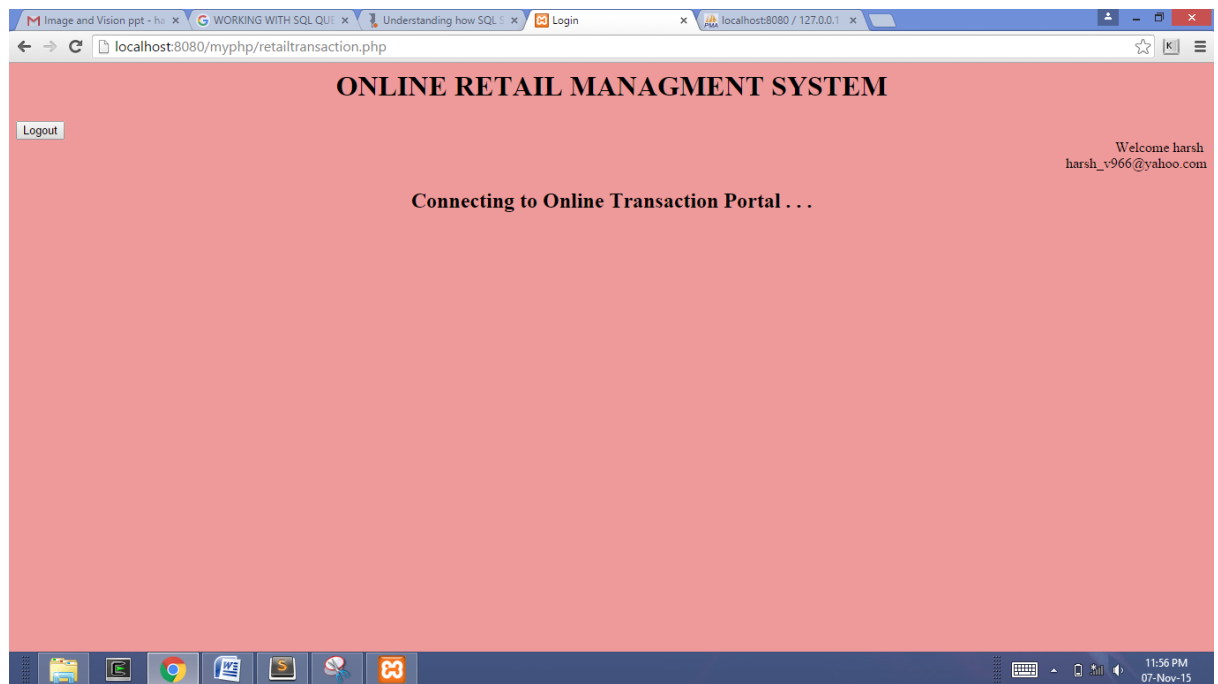
Logout

Welcome harsh
harsh_v966@yahoo.com

INVOICE

Product Name	Cost	Quantity	Total
Sprite	25/-	2	50
Apple	25/-	5	125
Mango	30/-	5	150
FastrackGT1052	1100/-	1	1100
Pepe Jeans(Original)	1500/-	2	3000
Grand Total:			4425/-

Go back to shop Proceed



DIFFICULTY/CHALLENGES & LEARNING:

- Initial challenges involved understanding the functioning of SQL queries.
- Since we have made use of web development using PHP,HTML a firm knowledge these languages was required.
- Integrating all the admin and customer modules to work together through a common database and operate simultaneously over a common table.
- Designing SQL queries using PHP variables that helps us take direct input from the user.

FUTURE ADVANCEMENTS:

- **Administrator Side:**
Tools can be built for the administrator to make analyzing the data easier. Tools such as **graph/chart generator** , **automatic query generator** can be built so as to serve this purpose.
- **Customer Side:**
Recommendations can be made more accurate and precise to a particular customer by taking several other parameters into consideration such as Location, Age, Quantity, Cost, Frequent visit counter ,etc.
- **Warehouse** status can be analyzed by the administrator on the same portal by getting the warehouse details onto the database.

REFERENCES:

- <http://www.w3schools.com/sql/>
- <http://php.net/manual/en/book.mysqli.php>
- <https://secure.php.net/manual/en/index.php>
- https://books.google.co.in/books?id=383SeuFv2loC&pg=PR9&lpg=PR9&dq=online+retail+management+system+php+mysql&source=bl&ots=GbC0xeAc&sig=JcMTzLGHq5uo0YQbx-wqsVIjv0o&hl=en&sa=X&sqi=2&ved=0CEsQ6AEwB2oVChMIuNr6lP7-yAIVyBiOCh1q_QMV#v=onepage&q=online%20retail%20management%20system%20php%20mysql&f=false
- <http://rndinfo.com/php-mysql-pgsql-development.html>