

DBMS LAB PROJECT

E-Commerce Website
(ECCOM)

-1911

Introduction

- This is small e-commerce website which has two templates, the customer and the admin.
- The customer can view the products, adds products to cart, order the products.
- The admin manages the website, the products, orders and the customers.

Features of the Website

Customer Features

- Log in/Log out/Sign up
- View products
- Add products to cart
- View the products in the cart
- Order the products
- View Orders
- View personal details

All these features are implemented in the project.

Admin Features

- Manage users, products, orders
- View/Add/Delete/Update products
- View all the orders, user details, products based on category
- Dashboard with insights

The admin features that are implemented are:

- View products, orders, user details, cart details
- Dashboard with insights

Requirements

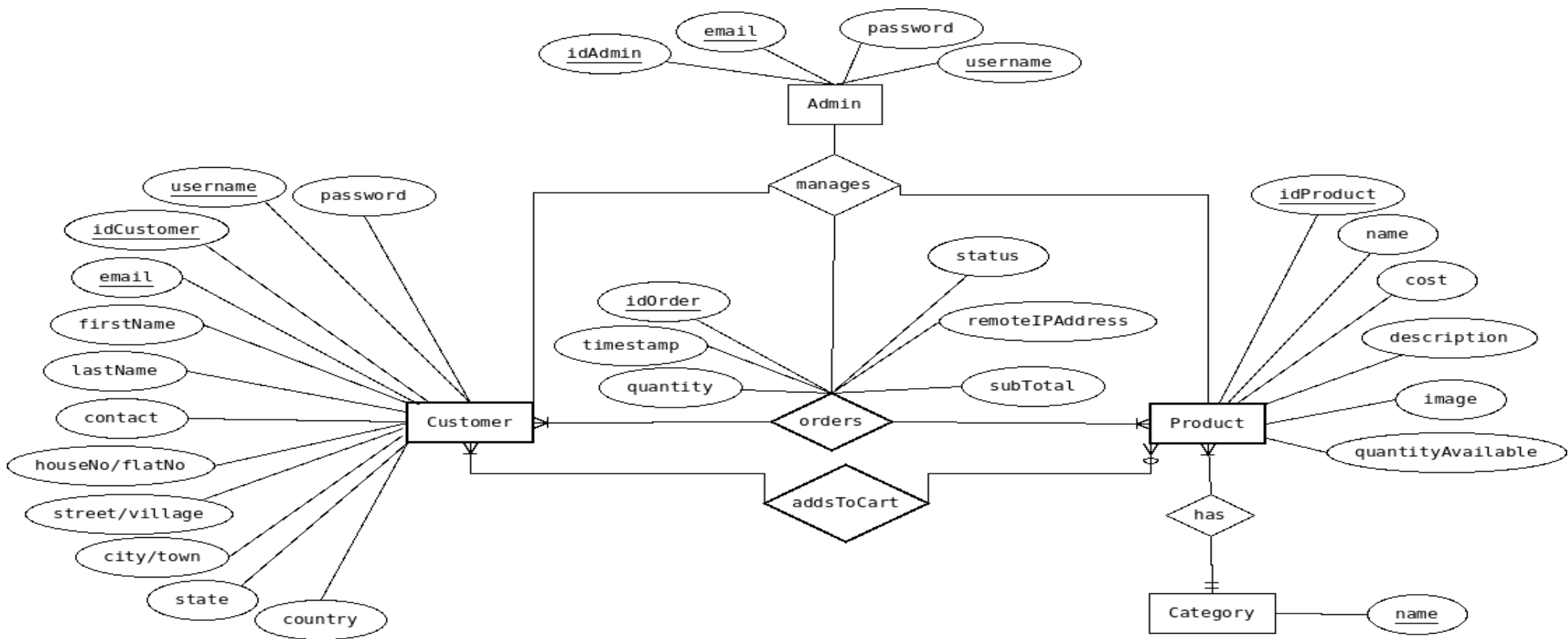
Technology Software Stack

- VS Code
- MySQL Server
- MySQL Workbench
- Dia Diagram
- Languages: Python, HTML, CSS, JavaScript, Jinja, SQL

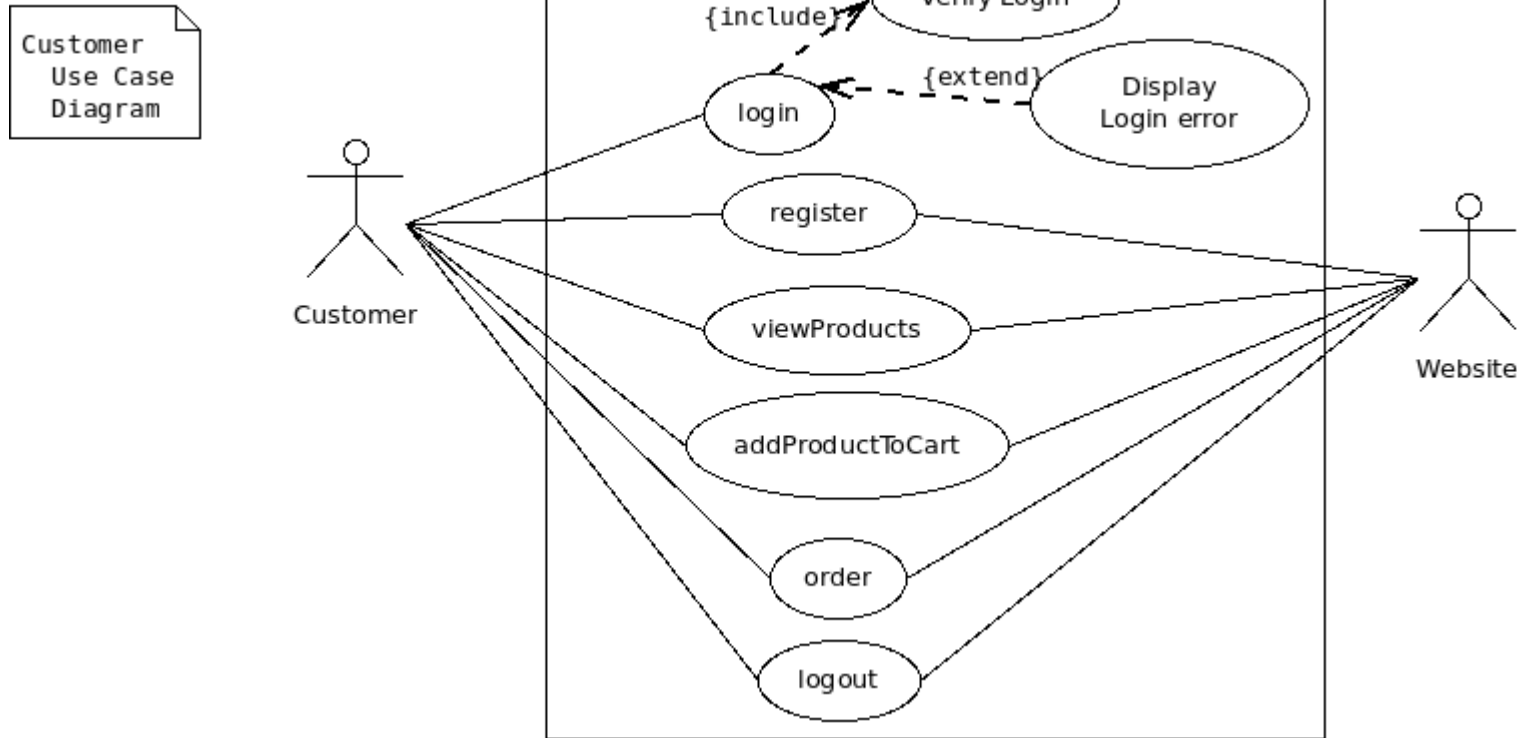
Packages used in Python

- Flask: Flask, render_template, request, session, redirect, url_for, flash
- Mysql: mysql, mysql.connector
- Functiontools: wraps
- Passlib.hash: mysql41

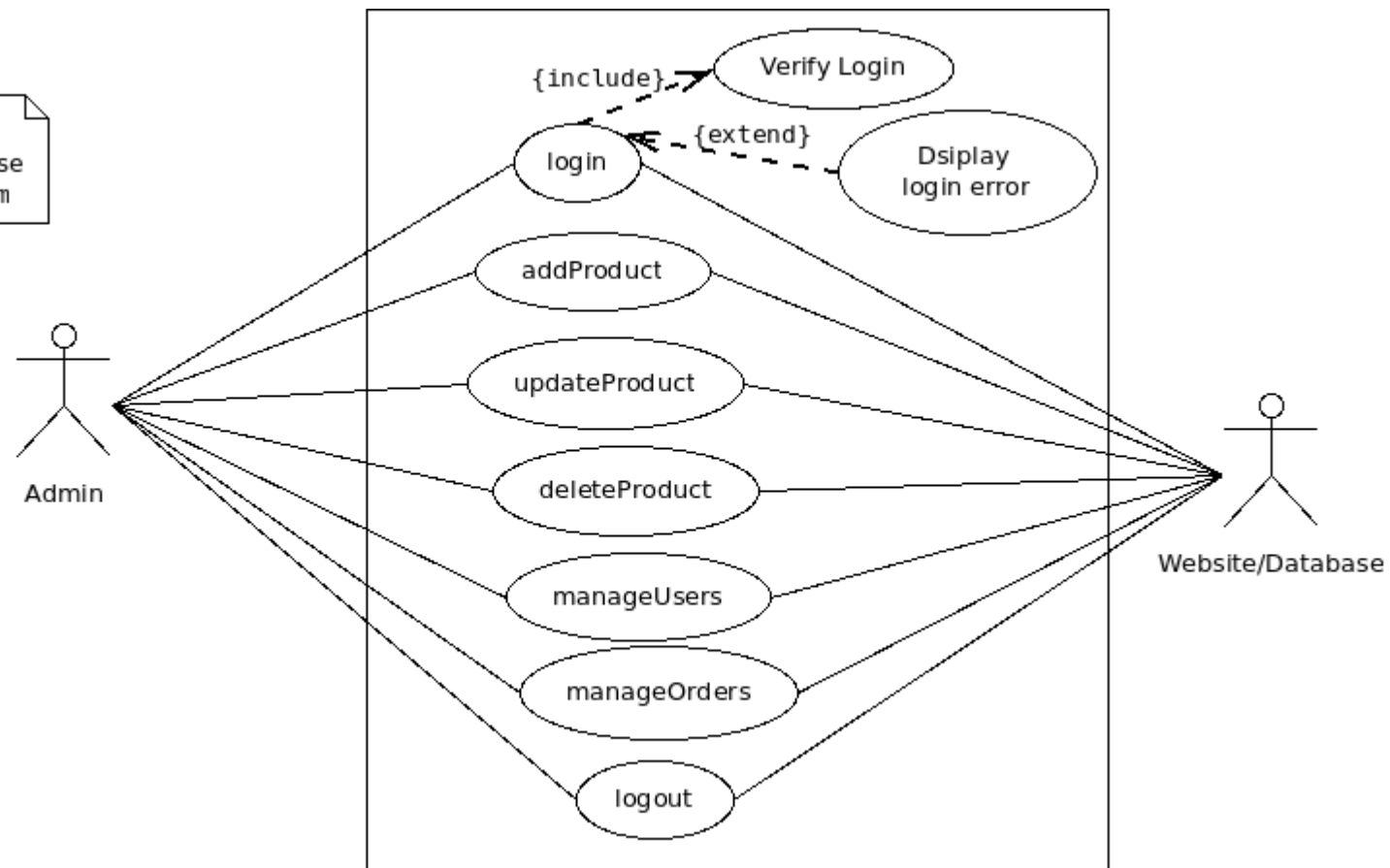
ERD



Use Case Diagram

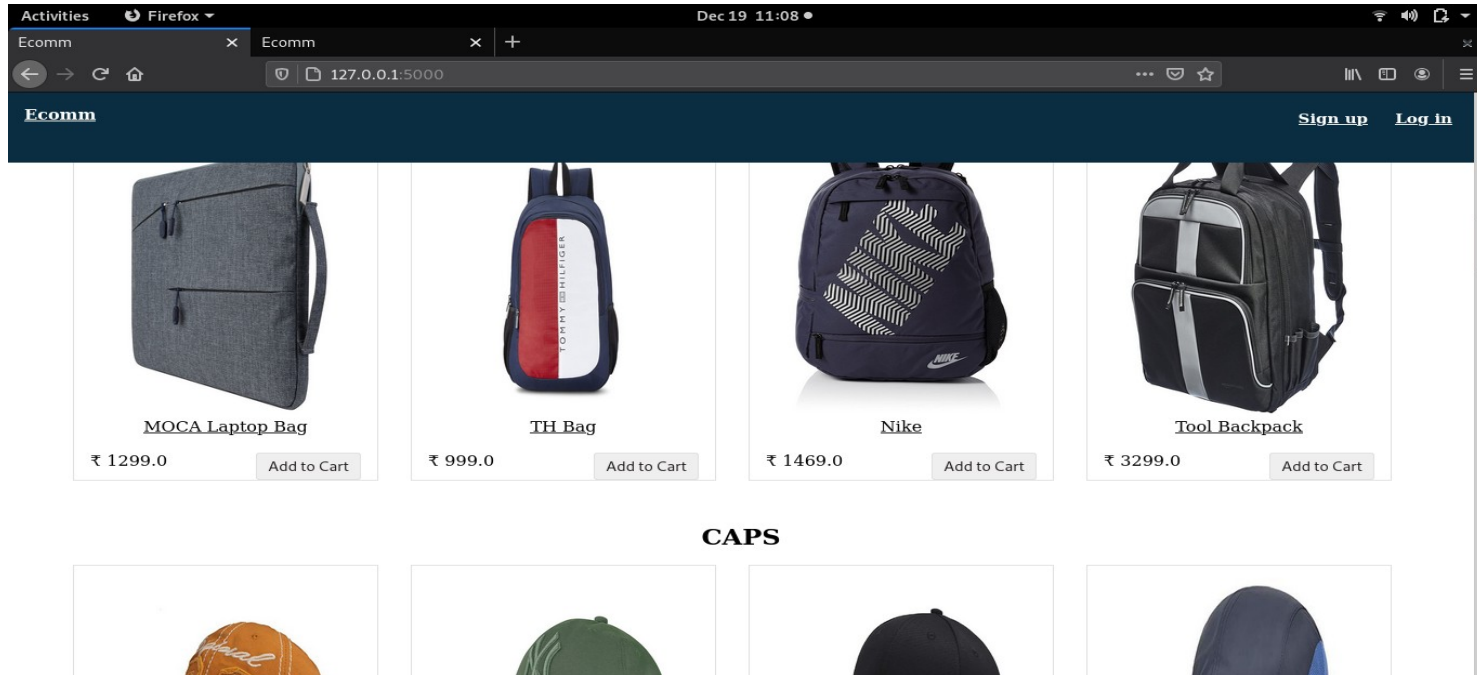


Admin
Use Case
Diagram

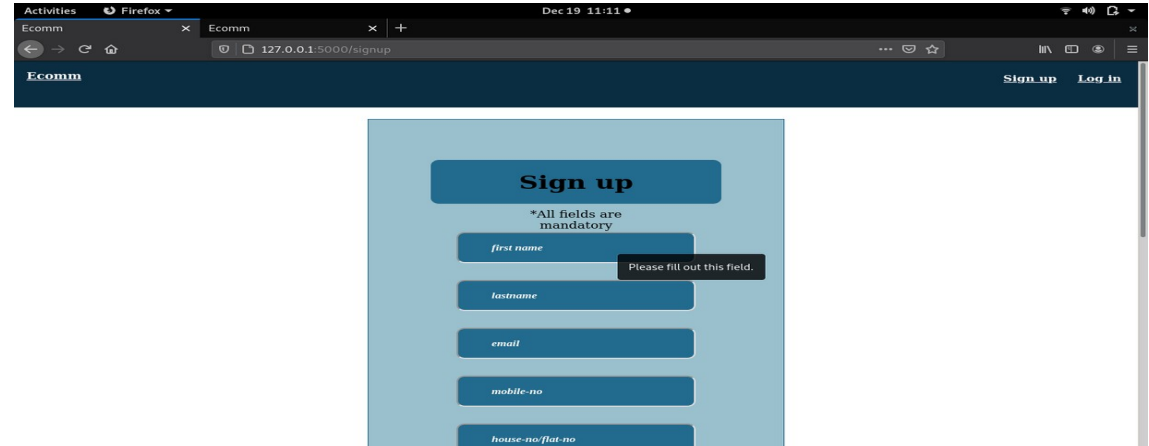


Implementation and Results for Customer

- Main page before login

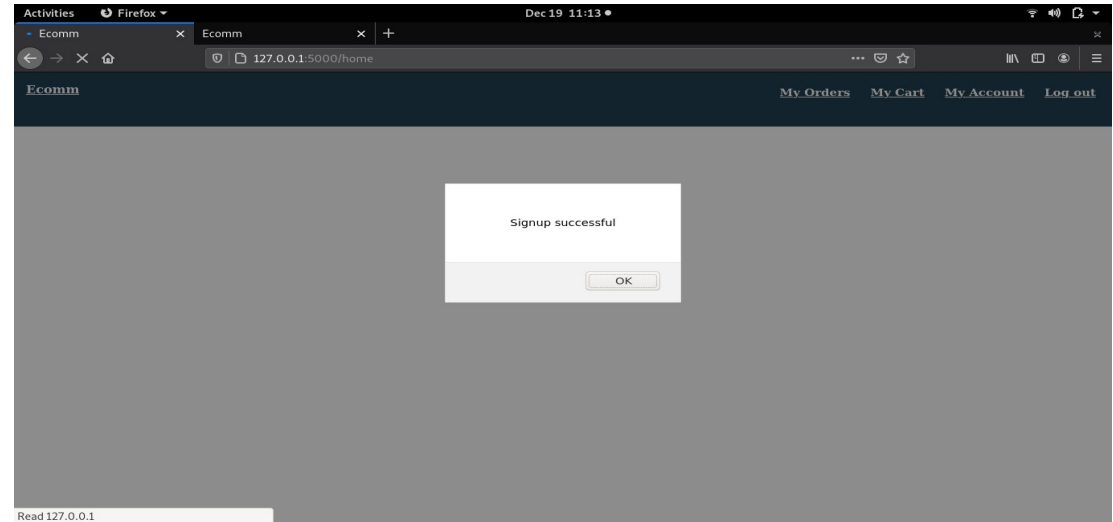


- Sign Up Form

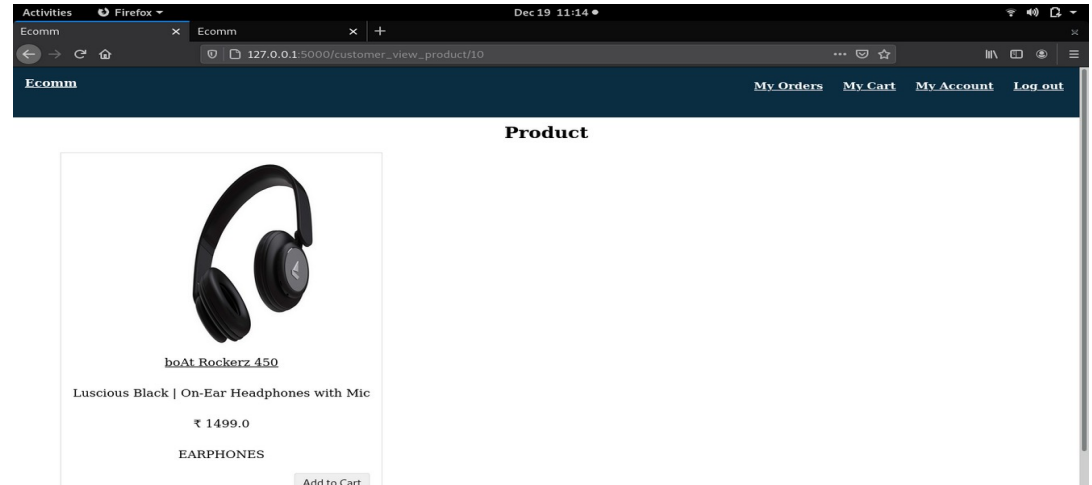


A screenshot of a web browser showing the 'Sign up' form. The browser's address bar displays '127.0.0.1:5000/signup'. The page has a dark blue header with the 'Ecomm' logo and 'Sign up' and 'Log in' links. The form itself is on a light blue background and includes a 'Sign up' button, a note that all fields are mandatory, and input fields for 'first name', 'lastname', 'email', 'mobile-no', and 'house-no/flat-no'. A tooltip message 'Please fill out this field.' is visible over the 'first name' input field.

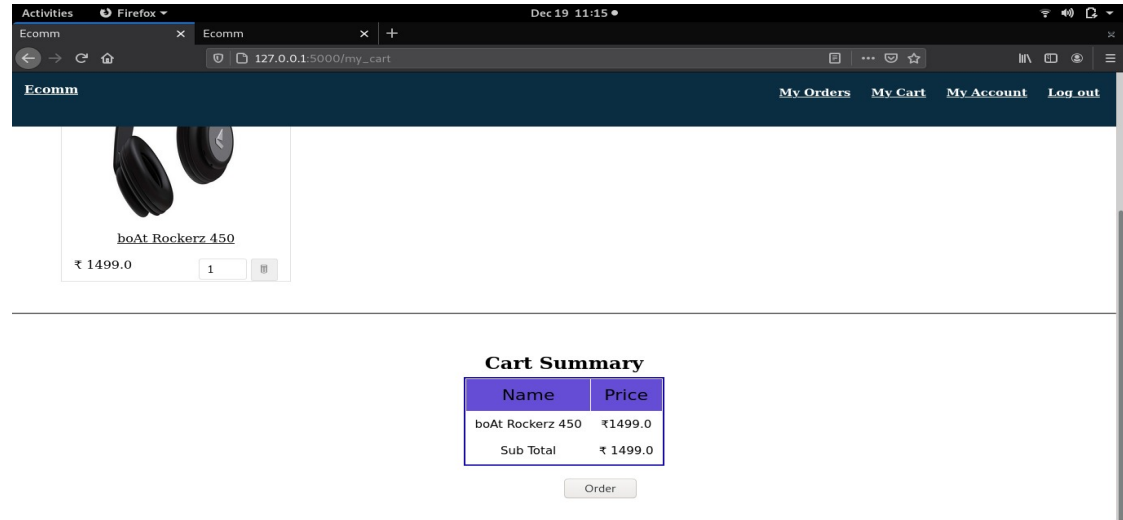
- Sign Up Message



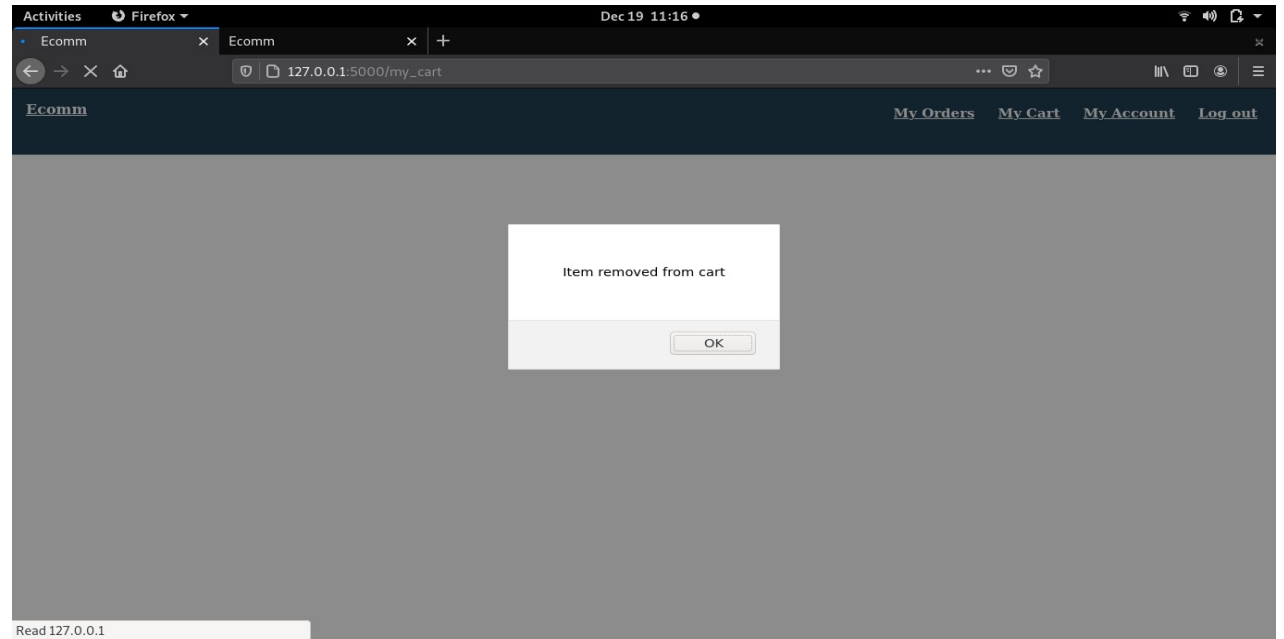
- View Product



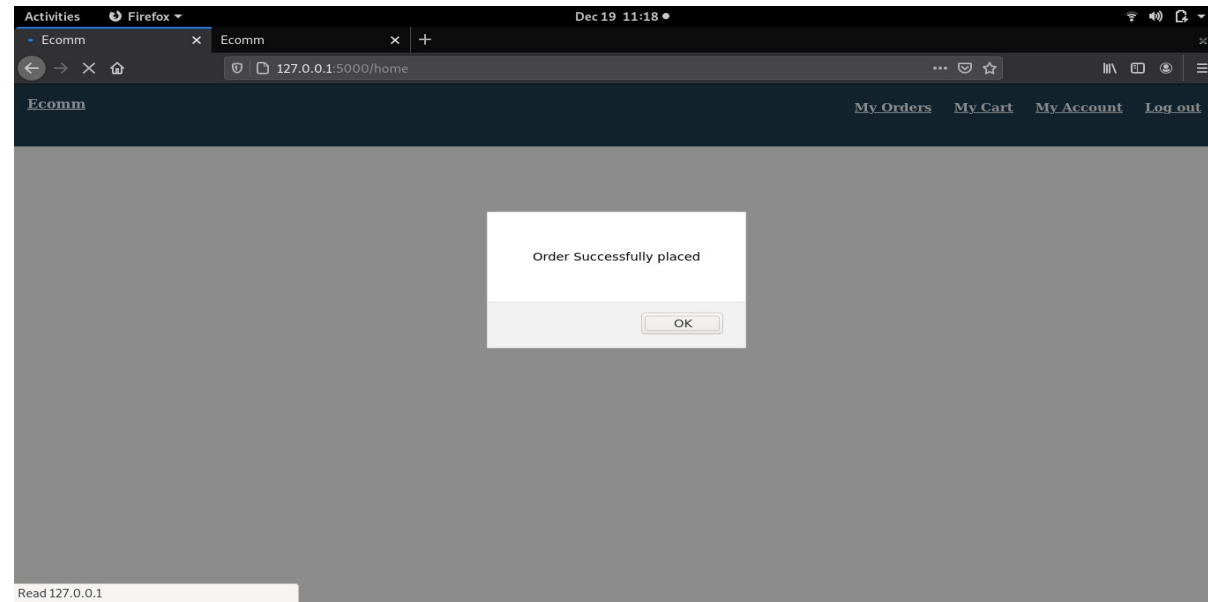
- View Cart



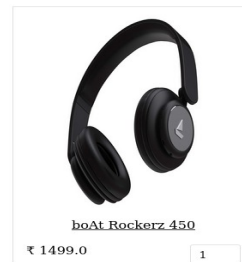
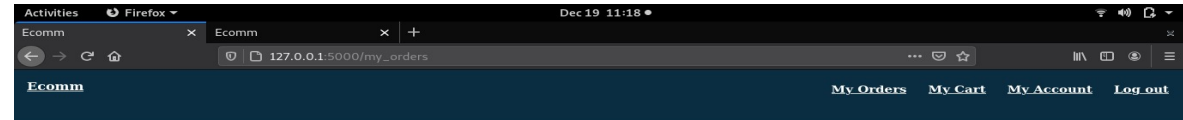
- Remove Item from Cart



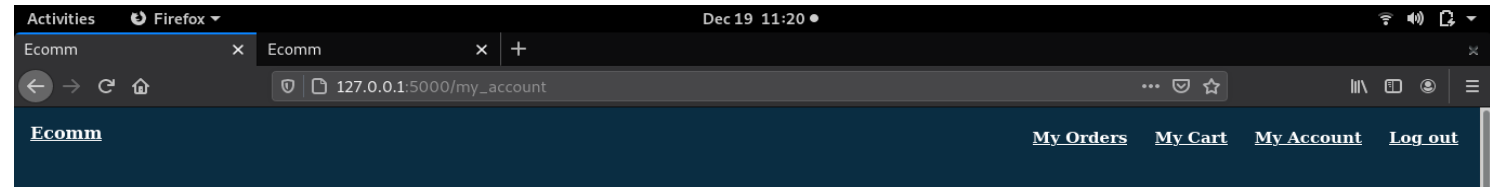
- Order Products



- View Orders



- View Personal Details



My Account

Name: riz

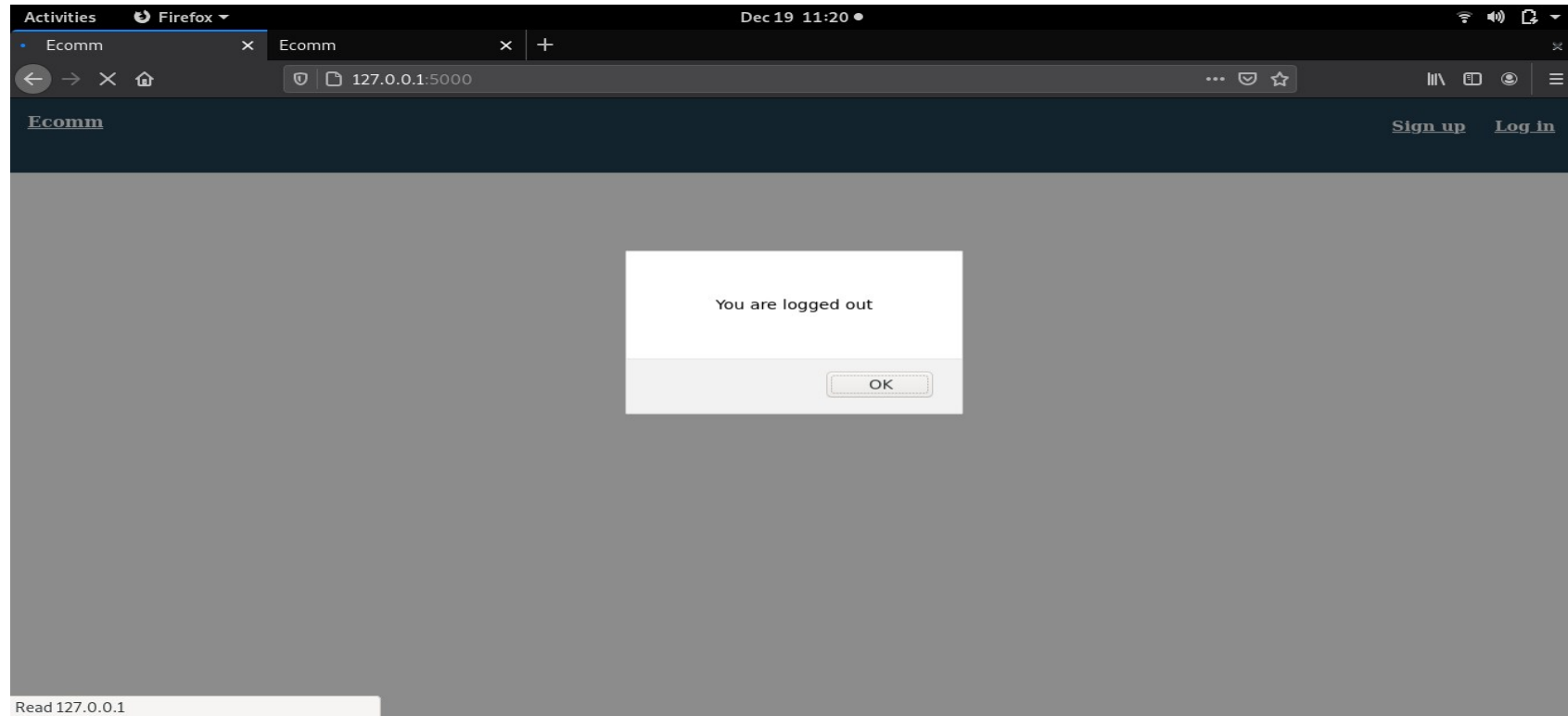
Lastname: fernandes

Email: riz@gmail.com

Contact: 7889095432

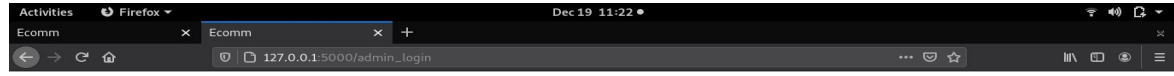
House/Flatno: 34

- Log out

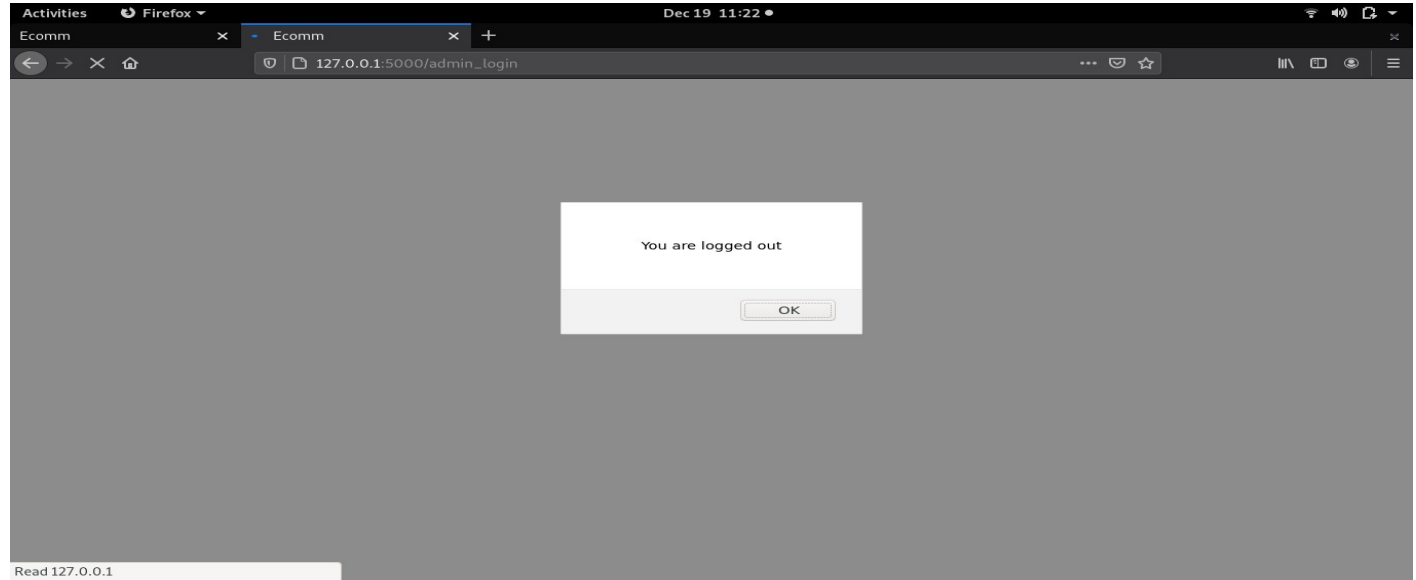


Implementation and Results for Admin

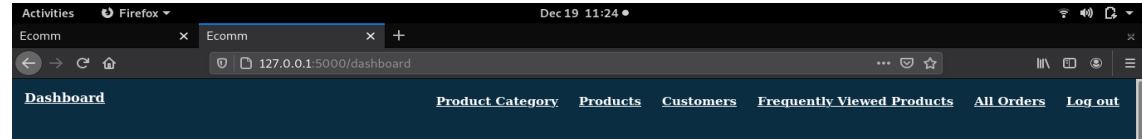
- Login

A login form with a blue header "Log In". Below the header is a note "*All fields are mandatory". There are two input fields, one labeled "username" and one labeled "password". Below the password field is a checkbox labeled "Show Password". At the bottom is a button labeled "Log In".

- Log out



- Dashboard

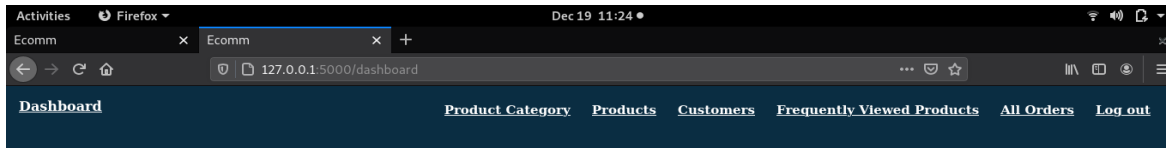


Filter Customers Based on Street or Village

Street Or Village	No. Of Customers
velim	3
18 june	2
park street	1
devil street	1

Filter Customers Based on City or Town

Ciry Or Town	No. Of Customers
Margao	3
Panajim	2
Getafe	1



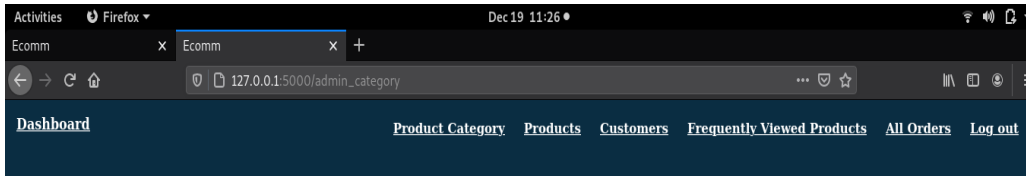
Number of Products in Customer cart

Username	No. Of Products In Cart
lucio	1
rahul	1
viru	3

Number of Products Customer has ordered

Username	No. Of Products Ordered
rohitur	5
viru	2
rahul	2
riz	1

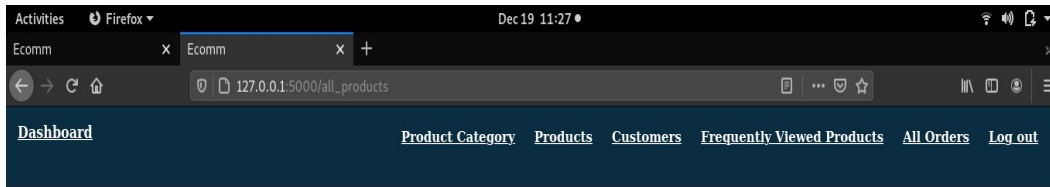
- View Category of Products



Number of Products Based on Category

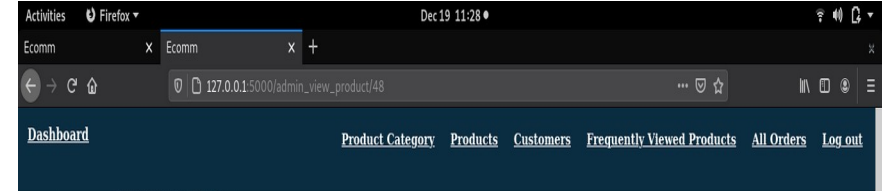
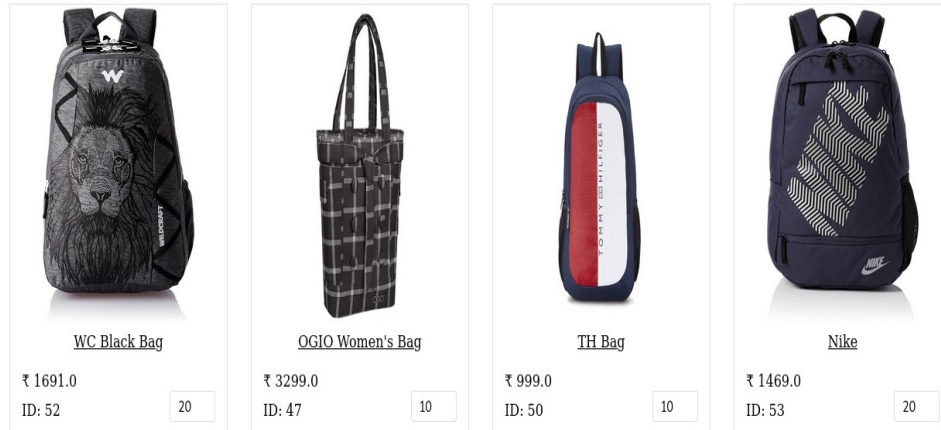
Category Name	Number of Products
BAGS	9
CAPS	7
CHAIR	5
EARPHONES	7
FOOTBALL	4
SMARTPHONE	11
SPEAKER	6
TABLE	5
TSHIRT	5
VOLLEYBALL	4

• View Products



Products

BAGS



[MOCA Laptop Bag](#)

ID: 48

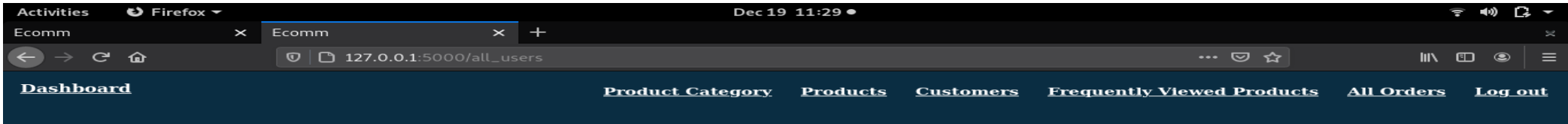
Bag | Laptop

₹ 1299.0

BAGS

Nos: 10

- View Customer Details



Users

Customer ID	Email	First Name	Last Name	Contact	HouseNo/FlatNo	Street/Village	City/Town	State	Country	Username
16	rohit@gmail.com	rohit	sharma	9675467345	567	velim	Margao	Goa	India	rohitur
17	singh@gmail.com	virat	singh	9856231454	67	18 june	Panajim	Goa	India	viru
18	srm@gmail.com	sergio	ramos	9634562312	78/A	park street	Getafe	Madrid	Spain	rmsr04
19	sanford@gmail.com	sanford	michello	1435678976	589	devil street	parkinson	Lusaka	Zambia	sanmic8
20	gomes@gmail.com	Lucio	Gomes	7889095432	23	18 june	Panajim	Goa	India	lucio
21	rahul@gmail.com	rahul	naik	6789367789	23	velim	Margao	Goa	India	rahul
22	riz@gmail.com	riz	fernandes	7889095432	34	velim	Margao	Goa	India	riz


- View Frequently Viewed Products

Activities Firefox Dec 19 11:29

Ecomm Ecomm 127.0.0.1:5000/frequent_products


[Dashboard](#) [Product Category](#) [Products](#) [Customers](#) [Frequently Viewed Products](#) [All Orders](#) [Log out](#)

Frequently Viewed Products




EYEBGLER Men's TShirt

₹ 320.0




Reclining Lounge Chair

₹ 3799.0




iBall Cube

₹ 516.0

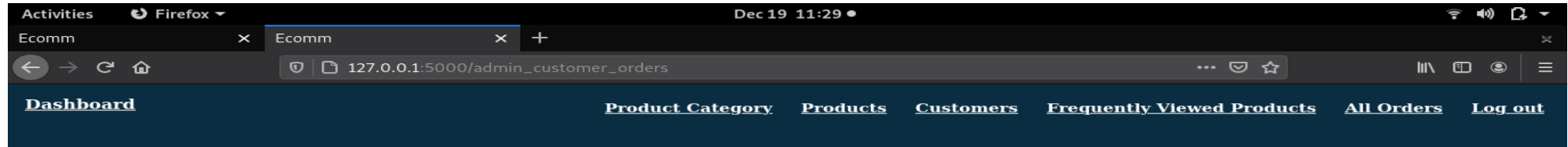


MBTC Lapis Table

₹ 1130.0



- View all Orders



All Orders

Order ID	Customer ID	Product ID	Quantity	Order Time	Sub Totak	Device IP	Status
1	16	9	1	2020-12-18 23:31:45	599.0	127.0.0.1	Order Placed
2	16	18	1	2020-12-18 23:31:45	15490.0	127.0.0.1	Order Placed
3	16	53	1	2020-12-18 23:31:45	1469.0	127.0.0.1	Order Placed
4	17	24	1	2020-12-19 00:01:02	869.0	127.0.0.1	Order Placed
5	17	47	1	2020-12-19 00:01:02	3299.0	127.0.0.1	Order Placed
6	21	49	1	2020-12-19 10:39:37	1299.0	127.0.0.1	Order Placed
7	21	58	1	2020-12-19 10:39:37	499.0	127.0.0.1	Order Placed
8	16	10	1	2020-12-19 10:47:39	1499.0	127.0.0.1	Order Placed
9	16	35	1	2020-12-19 10:47:39	1599.0	127.0.0.1	Order Placed
10	22	10	1	2020-12-19 11:18:23	1499.0	127.0.0.1	Order Placed

Reports

1) Find Products that are in customer carts

The screenshot shows the MySQL Workbench interface. The top status bar indicates the date and time as Dec 19 11:32. The main window is titled 'MySQL Workbench' and shows a connection to 'dbmslab'. The left sidebar contains navigation tabs for 'Administration', 'Schemas', 'Object Info', and 'Session'. The 'Administration' tab is active, showing a tree view with categories like 'MANAGEMENT' (Server Status, Client Connections, Users and Privileges, Status and System Variables, Data Export, Data Import/Restore) and 'INSTANCE' (Startup / Shutdown, Server Logs, Options File). The 'PERFORMANCE' section includes Dashboard, Performance Reports, and Performance Schema Setup. The main editor area is titled 'Query1' and contains a SQL query. The query is as follows:

```
335
336 ##### Reports #####
337 #1) frequently viewed products to be displayed on the website
338 #frequently viewed products are those which are added by the customers to their carts
339 #select those products which customers adds to the cart
340 #this can be used in the inventory so that the stock of products are met with the user requirements.
341 • select idProduct from cart group by idProduct order by rand() limit 4;
342 • select idProduct from cart group by idProduct order by rand();
343
```

Below the query editor, the 'Result Grid' is displayed, showing the results of the query. The grid has two columns: '#' and 'idProduct'. The results are as follows:

#	idProduct
1	39
2	12
3	53
4	42
5	33

The bottom status bar indicates 'Query Completed'.

Activities

Firefox

Dec 19 11:34

Ecomm

Ecomm

127.0.0.1:5000/dashboard

[Dashboard](#)

[Product Category](#)

[Products](#)

[Customers](#)

[Frequently Viewed Products](#)

[All Orders](#)

[Log out](#)

Spain	1
Zambia	1

Number of Products in Customer cart

Username	No. Of Products In Cart
lucio	1
rahul	1
viru	3

Number of Products Customer has ordered

Username	No. Of Products Ordered
rohitur	5

2) Filter customers based on their address

The screenshot shows the MySQL Workbench interface. The top menu bar includes File, Edit, View, Query, Database, Server, Tools, Scripting, and Help. The left sidebar contains a tree view with sections: Administration (Server Status, Client Connections, Users and Privileges, Status and System Variables, Data Export, Data Import/Restore), INSTANCE (Startup / Shutdown, Server Logs, Options File), and PERFORMANCE (Dashboard, Performance Reports, Performance Schema Setup). The main editor window has a tab labeled 'createTables*' and contains the following SQL code:

```
343
344 #2) select users as per their city, state, or country
345 #this can used by the admin to set up stations in real life so that the delivery can be achieved at a faste r
346 • select streetOrvillage, count(streetOrvillage) from customer group by streetOrvillage;
347 • select cityOrTown, count(cityOrTown) from customer group by cityOrTown;
348 • select state, count(state) from customer group by state;
349 • select country, count(country) from customer group by country;
```

Below the editor, the 'Result Grid' is displayed with the following data:

#	country	count(country)
1	India	5
2	Spain	1
3	Zambia	1

The bottom status bar indicates 'Query Completed'.

Filter Customers Based on State

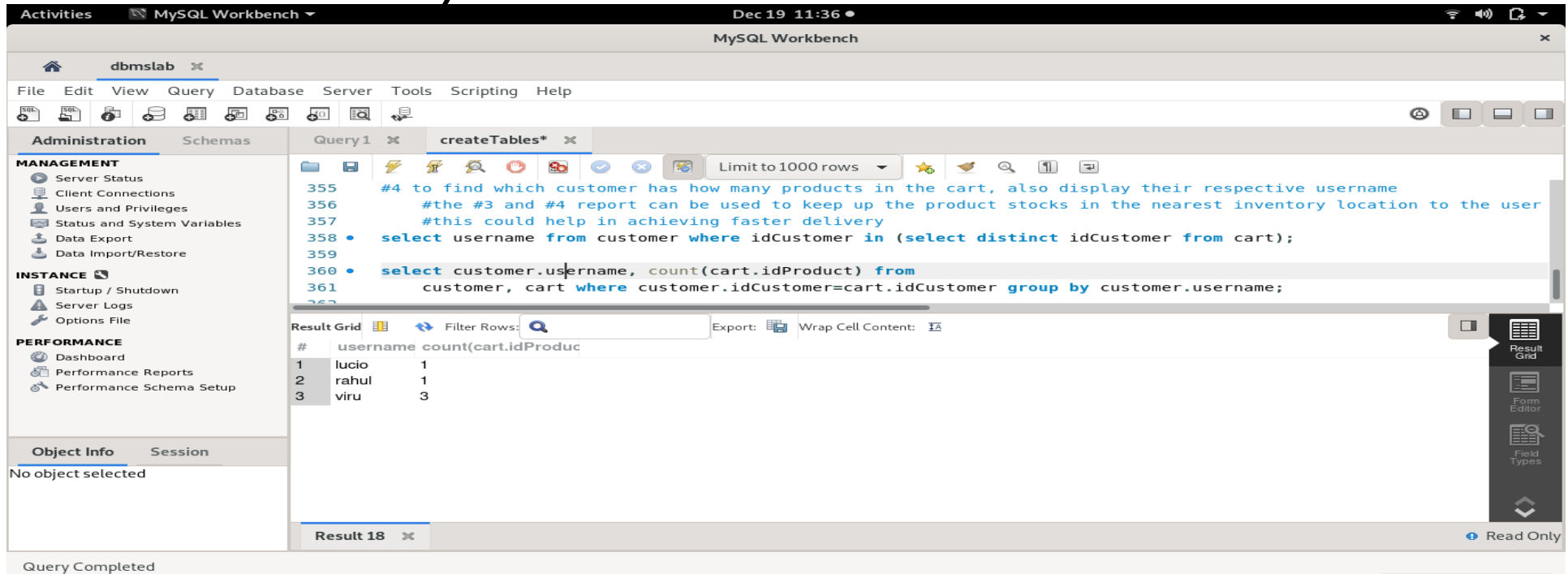
State	No. Of Customers
Goa	5
Madrid	1
Lusaka	1

Filter Customers Based on Country

Country	No. Of Customers
India	5
Spain	1
Zambia	1

3) Find number of products in customer cart

- Based on 1)



The screenshot shows the MySQL Workbench interface. The left sidebar contains the 'Administration' and 'Performance' panels. The main editor window displays a SQL query in the 'Query1' tab. The query is as follows:

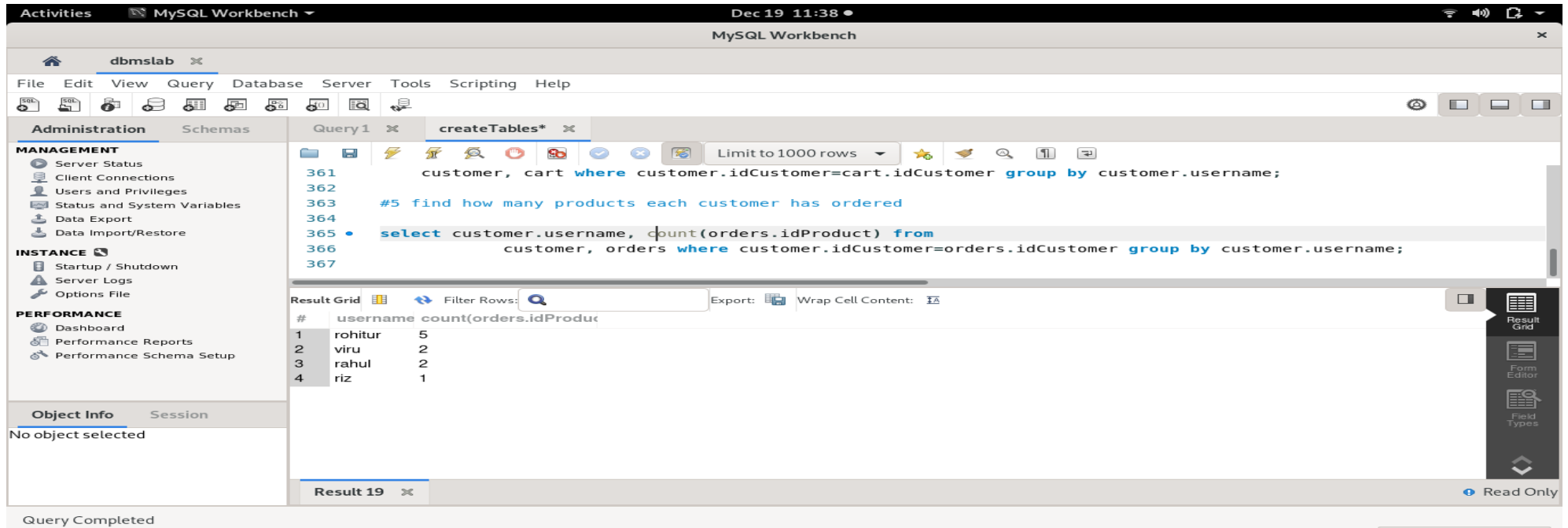
```
355 #4 to find which customer has how many products in the cart, also display their respective username
356 #the #3 and #4 report can be used to keep up the product stocks in the nearest inventory location to the user
357 #this could help in achieving faster delivery
358 • select username from customer where idCustomer in (select distinct idCustomer from cart);
359
360 • select customer.username, count(cart.idProduct) from
361 customer, cart where customer.idCustomer=cart.idCustomer group by customer.username;
```

Below the query editor, the 'Result Grid' is visible, showing the results of the query. The results are as follows:

#	username	count(cart.idProduct)
1	lucio	1
2	rahul	1
3	viru	3

The status bar at the bottom indicates 'Query Completed'.

4) Find number of products the customer has ordered



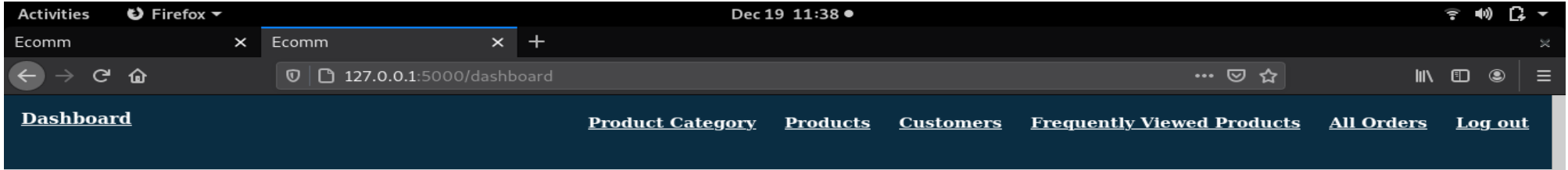
The screenshot shows the MySQL Workbench interface. The top menu bar includes File, Edit, View, Query, Database, Server, Tools, Scripting, and Help. The left sidebar contains a tree view with sections: Administration (Server Status, Client Connections, Users and Privileges, Status and System Variables, Data Export, Data Import/Restore), Instance (Startup / Shutdown, Server Logs, Options File), and Performance (Dashboard, Performance Reports, Performance Schema Setup). The main editor area shows a SQL query in a tab labeled 'Query1'. The query is as follows:

```
361 customer, cart where customer.idCustomer=cart.idCustomer group by customer.username;
362
363 #5 find how many products each customer has ordered
364
365 • select customer.username, count(orders.idProduct) from
366     customer, orders where customer.idCustomer=orders.idCustomer group by customer.username;
367
```

Below the query editor, the 'Result Grid' is displayed, showing the results of the query. The grid has columns for '#', 'username', and 'count(orders.idProduct)'. The results are as follows:

#	username	count(orders.idProduct)
1	rohitur	5
2	viru	2
3	rahul	2
4	riz	1

The bottom status bar indicates 'Query Completed'.



Number of Products in Customer cart

Username	No. Of Products In Cart
lucio	1
rahul	1
viru	3

Number of Products Customer has ordered

Username	No. Of Products Ordered
rohitur	5
viru	2
rahul	2
riz	1


5) Frequently Viewed Products

Activities Firefox Dec 19 11:40

Ecomm Ecomm 127.0.0.1:5000

Ecomm Sign up Log in


Frequently Viewed Products



Nike

₹ 1469.0


Add to Cart



MBTC Lapis Table

₹ 1130.0


Add to Cart



Reclining Lounge Chair

₹ 3799.0

Add to Cart



iBall Cube

₹ 516.0

Add to Cart

6) Recently Ordered Products

Activities

Firefox

Dec 19 11:40

Ecomm


Ecomm

127.0.0.1:5000

Sign up

Log in


Recently Ordered Products



Redmi 8 Pro

₹ 15490.0


Add to Cart



boAt Rockerz 450

₹ 1499.0


Add to Cart



Zacharias Cap

₹ 499.0

Add to Cart



Nivia Shining Star

₹ 869.0

Add to Cart

Future Scope

- Complete the project
- Add all the functionalities of the admin
- Add payment method
- Increase functionalities of the website based on the requirement

Thank You