



# Capstone Project Report

on

## SHOP FOR HOME

### **Team Members:**

1. Avula Venkata Mallikarjuna Gagandeep Reddy
2. Saurav Kumar
3. Srinivas Mundlamuri
4. Tharun kumar Chinchili
5. Veda priya M N

**Mentor:** Kurra Kiran Kumar

**Stream:** Java Full Stack Development

**Partner:** Great Learning

---

---

## **PROBLEM STATEMENT:**

Shop For Home is a popular Store in the market for shopping the home décor stuff. Due to Covid 19, all offline shopping stopped. So, the store wants to move to the cloud platforms and wants its own web application.

## **COMPONENTS OF THE PROJECT:**

Any full-stack application can be divided into three parts that are mentioned below

- The Frontend
- The Backend
- The Database

## **Core concepts used in the project:**

### **1. Front End:**

- HTML.
- CSS3
- Bootstrap4.
- TypeScript.
- Angular,
- Angular Material for View.

### **2. Git:**

To connect and push files from the local system to GitHub.

### **3. GitHub:**

To store the application code and track its versions

### **4. Back End:**

Eclipse IDE. Java Programming. Searching and Sorting Spring Boot DevTools.

Spring Web and Spring Data JPA.

---

---

## **Operating System:**

- Windows 7/8/10/11
- Linux distros
- MacOS X or later.

## **Processor:**

- Intel or AMD dual core x86 processor.

## **RAM:**

- 8 GB or above.

## **Hard disk:**

- 1000 MB of free disk space or more.

## **Features of the application:**

1. Registration
  2. Login
  3. Payment gateway
  4. Searching
  5. Filtering
  6. Sorting
  7. Dynamic data
  8. Responsive and compatible with different devices
-

---

## **Recommended technologies:**

1. Database management: SQL.
2. Backend logic: Spring Boot, Java programming.
3. Frontend development: Angular, Bootstrap, HTML/CSS, and Javascript
4. DevOps and production technologies: Git, GitHub.

## **STUDY OF THE SYSTEM:**

### **Modules:**

The system after a careful analysis has been identified to be presented with the following modules and roles.

The modules involved are:

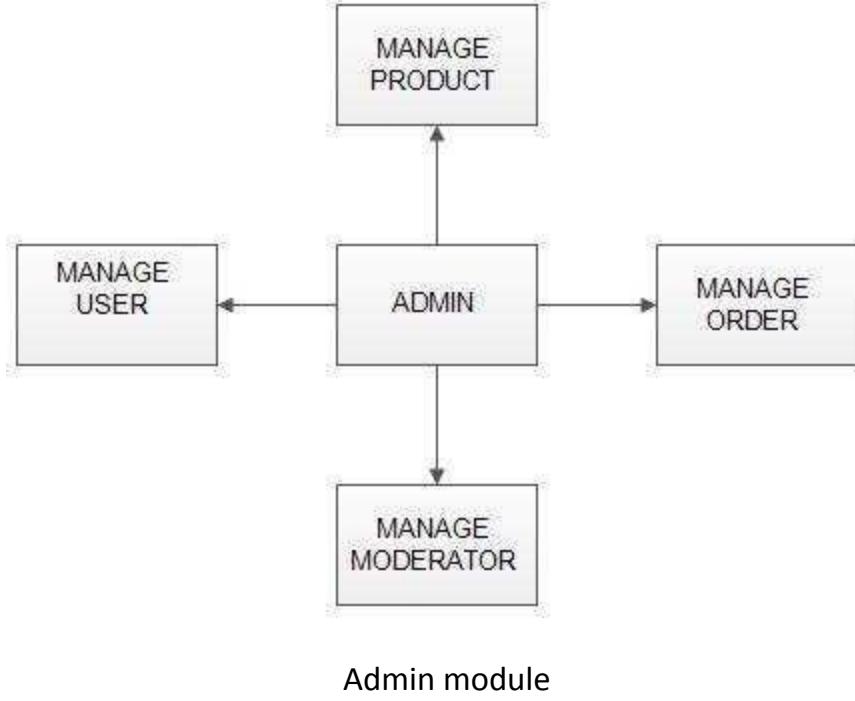
- Admin
- Users

### **Admin Portal:**

The administrator is the super user of this application. Only the admin has access to this admin page. Admin may be the owner of the shop. The administrator has all the information about all the users and about all products. The admin user should be able to:  
Add or remove different products to or from the application to build a rich product line  
Edit product item details like name, price, discount, and offers to keep it aligned to the current prices  
Enable or disable the product items

This module is divided into different sub-modules.

1. Manage Moderators
2. Manage Products
3. Manage Users
4. Manage Orders



## Manage Moderators :

- **Add Moderator:**

Only the admin is having the privilege to add a moderator. A moderator can be considered as a staff who manages the orders or owner of a group of products.

- **Remove Moderator:**

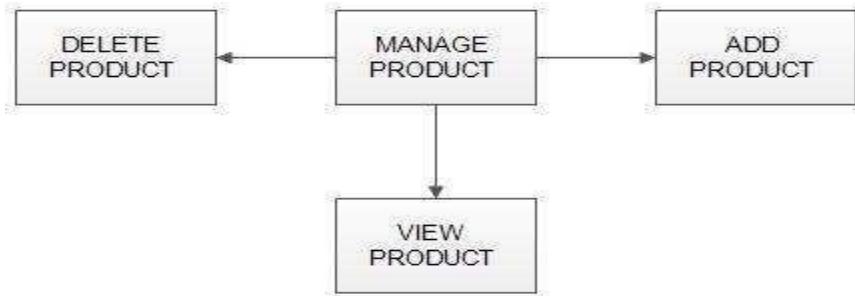
Admin has the privilege to delete a moderator who was added.

- **Search moderator:**

All existing moderators can be viewed by the administrator as a list. If there are a number of moderators and the admin needs to find one of them, the admin can search for a moderator by name.

---

## Manage Products:



Manage Products

- **Add Products:**

The shopping cart project contains different kinds of products. The products can be classified into different categories by name. Admin can add new products into the existing system with all its details including an image.

- **Delete Products:**

Administrators can delete the products based on the stock of that particular product.

- **Search products:**

Admin will have a list view of all the existing products. He can also search for a particular product by name.

## Manage Users:

- **View Users:**

The admin will have a list view of all the users registered in the system. Admin can view all the details of each user in the list except the password.

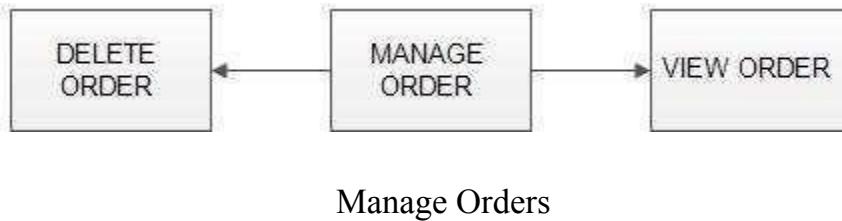
- **Add Users:**

Admin has privileges to add a user directly by providing the details.

---

---

## **Manage Orders:**



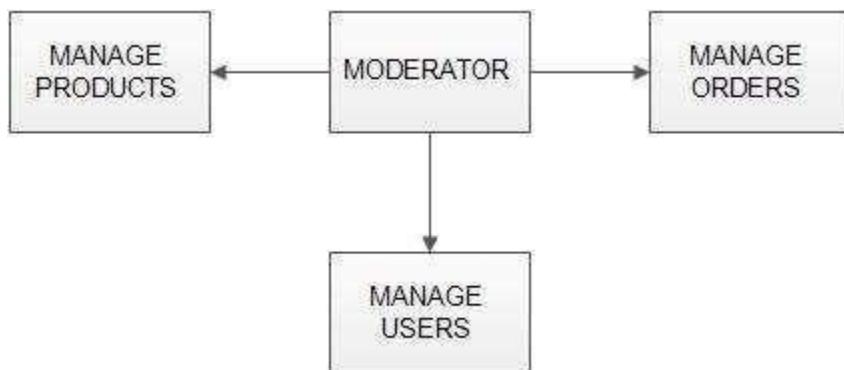
- **View Order:**

Administrators can view the Orders which are generated by the users. He can verify the details of the purchase.

- **Delete Order:**

Admin can delete orders from the orders list when the product is taken for delivery.

## **Moderators:**



Moderator Module

A moderator is considered a staff who can manage orders for the time being. As a future update moderator may give the facility to add and manage his own products. Moderators can reduce the workload of admin. Now moderator has all the privileges an admin has

---

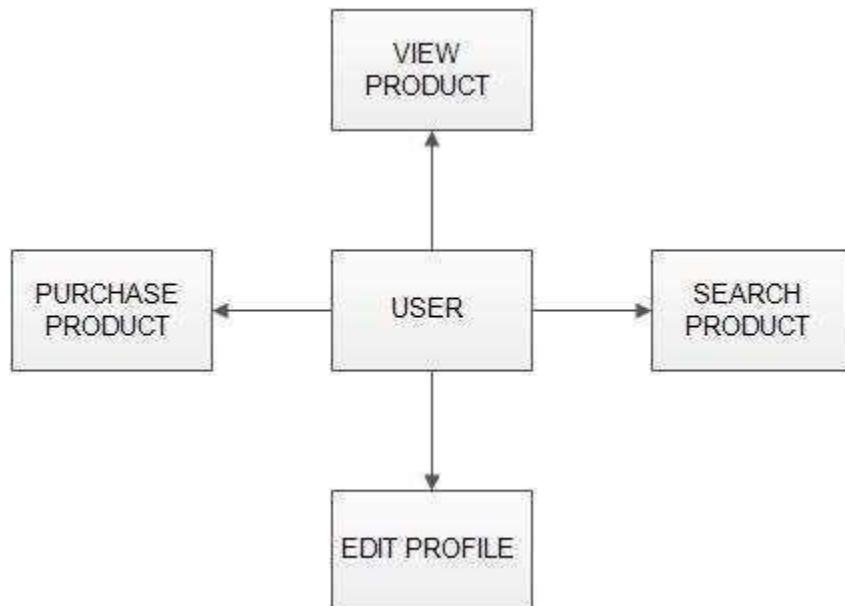
---

except managing other moderators. He can add products and users. He can also check the orders and edit his profile.

- Manage products
- Manage users
- Manage orders

## Users Portal:

It deals with user activities. The end-user should be able to: Sign-in to the application to maintain a record of activities and Search for product items based on the search keyword. Add all the selected product items to a cart and customize the purchase at the end Perform a seamless payment process Get an order summary details page once the payment is complete



User Module

---

---

## **Registration:**

A new user will have to register in the system by providing essential details in order to view the products in the system. The admin must accept a new user by unblocking him.

- **Login:**

A user must login with his user name and password to the system after registration.

- **View Products:**

Users can view the list of products based on their names after successful login. A detailed description of a particular product with product name, product details, product image, and price can be viewed by users.

- **Search Product:**

Users can search for a particular product in the list by name.

- **Add to cart:**

The user can add the desired product to his cart by clicking add to cart option on the product. He can view his cart by clicking on the cart button. All products added by the cart can be viewed in the cart. Users can remove an item from the cart by clicking remove.

- **Submit Cart:**

After confirming the items in the cart the user can submit the cart by providing a delivery address. On successful submitting the cart will become empty.

- **History:**

In the history, the user will have a view of pending orders.

- **Edit Profile:**

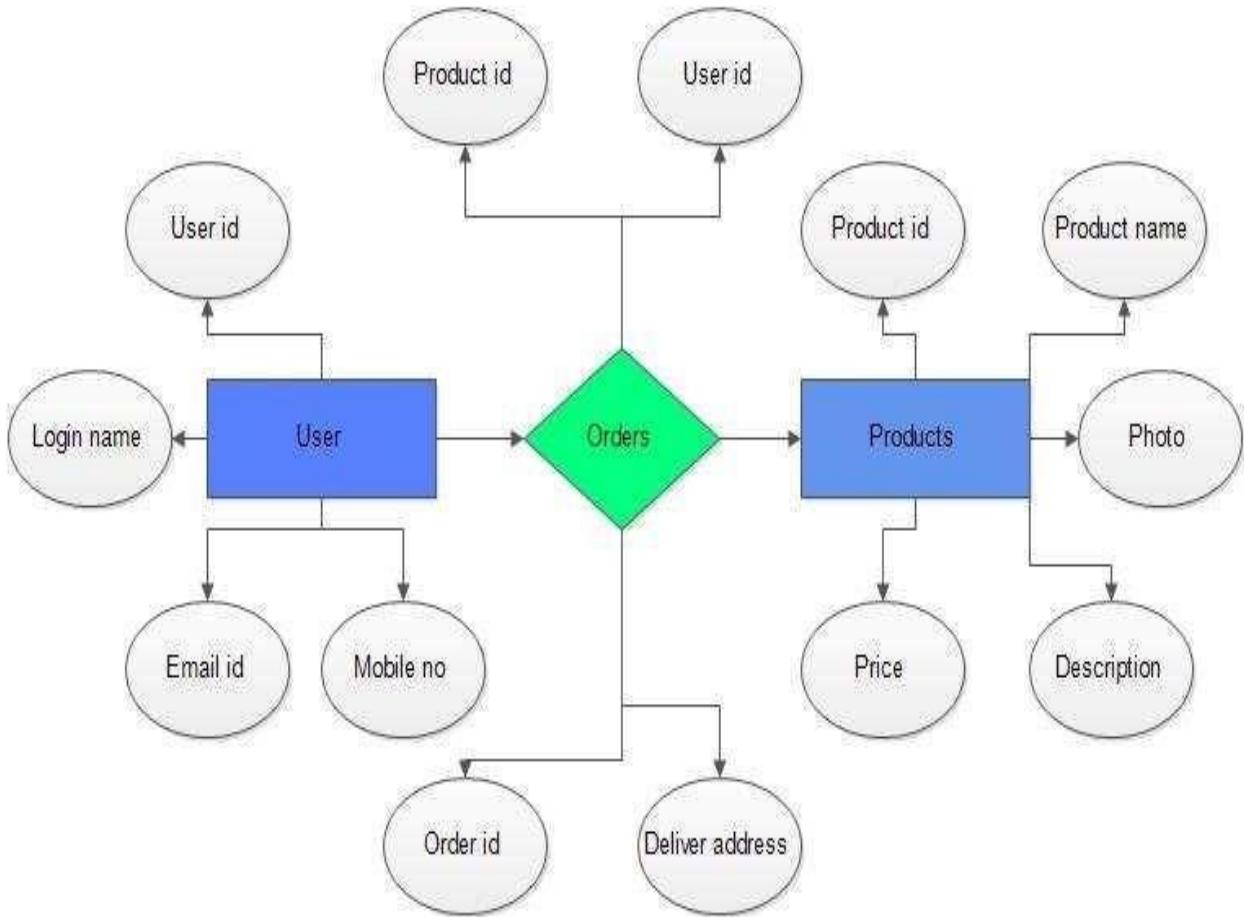
The user can view and edit the profile.

---

---

## **DATA FLOW DIAGRAM:**

A Data Flow Diagram (DFD) is a structured analysis and design tool that can be used for flowcharting. A DFD is a network that describes the flow of data and the processes that change or transform the data throughout a system. This network is constructed by using a set of symbols that do not imply any physical implementation. It has the purpose of the clarifying system requirements and identifying major transformations. So it is the starting point of the design phase that functionally decomposes the requirements specifications down to the lowest level of detail. DFD can be considered to be an abstraction of the logic of an information-oriented or a process-oriented system flow-chart. For these reasons, DFD's are often referred to as logical data flow diagrams.



## Project Users and Admin Stories :

The project is planned to be completed in 2 sprints. Tasks assumed to be completed in the sprint are: Creating the flow of the application and Initializing the git repository to track changes as development progresses. Writing the Java program to fulfill the requirements of the project.

### User Stories:

1. As a user, I should be able to login, Logout, and Register into the application.
2. As a user, I should be able to see the products in different categories.
3. As a user, I should be able to sort the products.
4. As a user, I should be able to add the products into the shopping cart.

- 
5. As a user, I should be able to increase or decrease the quantity added in the cart.
  6. As a user I should be able to add “n” number of products in the cart.
  7. As a user I should be able to get the Wishlist option where I can add those products which I want but don’t want to order now.
  8. As a user I should get different discount coupons.

## **Admin Stories:**

1. As an Admin I should be able to login, Logout, and Register into the application.
2. As an Admin I should be able to perform CRUD on Users.
3. As an Admin I should be able to perform CRUD on the products.
4. As an Admin I should be able to get a bulk upload option to upload a CSV for product details.
5. As an Admin I should be able to get the stocks.
6. As an Admin I should be able to mail if any stock is less than 10.
7. As an Admin I should be able to get the sales report of a specific duration.
8. As an Admin I should be able to set the discount coupons for the specific set of user

## **Sprint I Objectives:**

1. Create a git repository
  2. Create database schema (all tables along with their relationships)
  3. Create entities in Spring
  4. Create Microservice based structure.
  5. CRUD on Users and Products
  6. Create an eCommerce Template in Angular (Static only) to hold images and product lists.
  7. Develop Search Functionality in Angular
  8. Bulk upload implementation.
-

## Sprint II Objectives:

1. Cart option.
2. Stock and Sales reports
3. Create Data Transfer objects
4. Create repository
5. Create Service layer logic
6. Create a Controller to direct the rest API
7. Create Discount Microservice

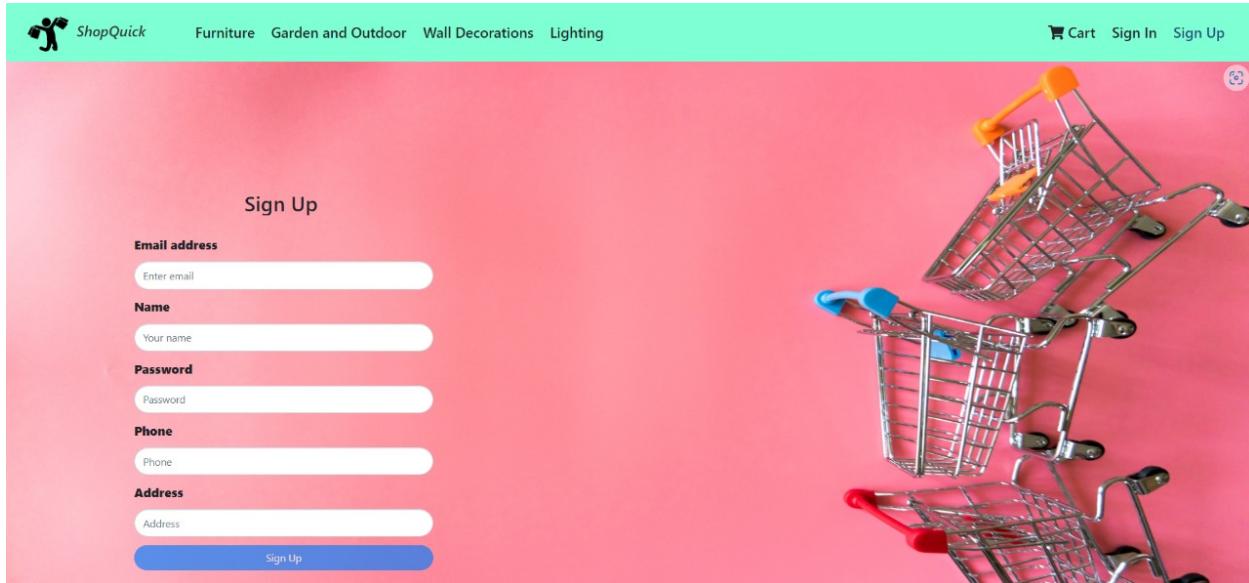
## Screenshots:

### Home Page:

The screenshot shows the ShopQuick website's home page. At the top, there is a navigation bar with the ShopQuick logo, a search bar, and links for Furniture, Garden and Outdoor, Wall Decorations, and Lighting. On the right side of the top bar are links for Cart, Sign In, and Sign Up. Below the navigation bar, the word "Furniture" is displayed in a large, bold font. A search bar with the placeholder "Search..." is positioned below the title. The main content area features three decorative items listed in a grid:

- Space Gingko Leaf**  
Description: Showpieces Metal Table Top Gold Ornament for Showcase  
Price: \$50.00
- Seven Chakra Crystal Tree**  
Description: Feng Shui Items for Positive Energy  
Price: \$65.00
- Polycrystal Sitting Buddha Idol**  
Description: Statue Showpiece for Home Decor Diwali Decoration and Gifting  
Price: \$45.00

## Sign Up Page:



The image shows the sign up page for ShopQuick. The header features the ShopQuick logo and navigation links for Furniture, Garden and Outdoor, Wall Decorations, and Lighting. The main content area has a pink background and displays a "Sign Up" form with fields for Email address, Name, Password, Phone, and Address. A blue "Sign Up" button is at the bottom. To the right of the form is a photograph of a silver shopping cart with orange handles, tilted diagonally.

ShopQuick

Furniture Garden and Outdoor Wall Decorations Lighting

Cart Sign In Sign Up

Sign Up

Email address

Enter email

Name

Your name

Password

Password

Phone

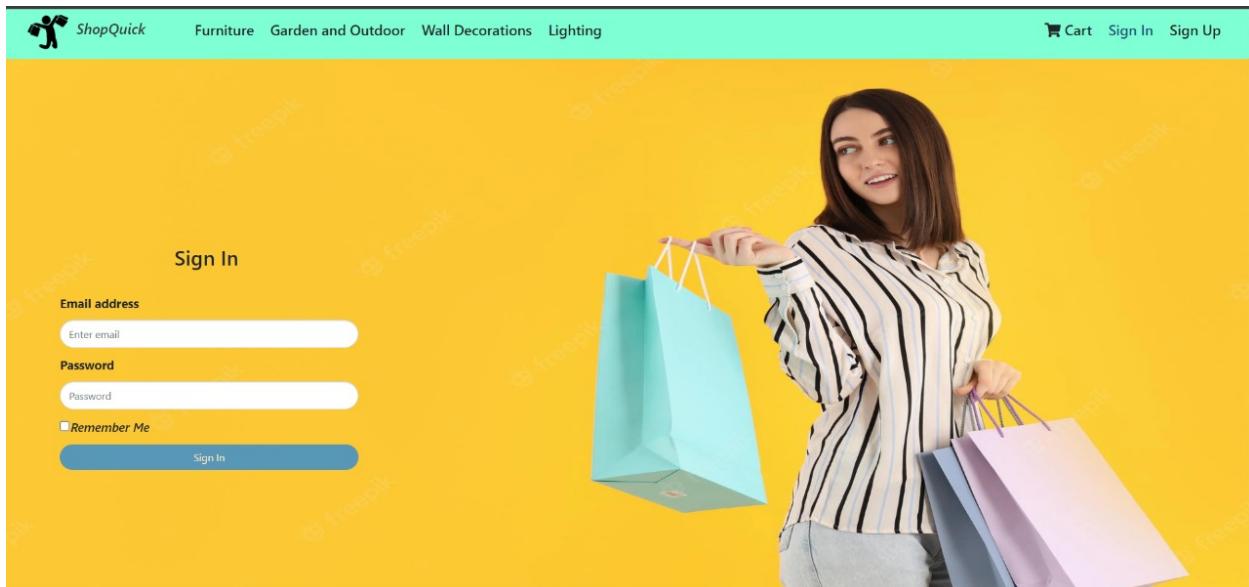
Phone

Address

Address

Sign Up

## Sign In Page:



The image shows the sign in page for ShopQuick. The header features the ShopQuick logo and navigation links for Furniture, Garden and Outdoor, Wall Decorations, and Lighting. The main content area has a yellow background and displays a "Sign In" form with fields for Email address, Password, and a "Remember Me" checkbox. A blue "Sign In" button is at the bottom. To the right of the form is a photograph of a woman with long brown hair, wearing a striped shirt, holding several colorful shopping bags (teal, pink, blue) against a yellow background.

ShopQuick

Furniture Garden and Outdoor Wall Decorations Lighting

Cart Sign In Sign Up

Sign In

Email address

Enter email

Password

Password

Remember Me

Sign In



ShopQuick

Furniture Garden and Outdoor Wall Decorations Lighting



Cart Sign In Sign Up

## Wall Sculptures

Search...



Hanging Fish for Room Decoration

Description: Handmade Hand-Painted Wall Hanging

Price: \$53.00



Metal Wall Decor Wall Hanging

Description: Multi Color Wall Arts for Home

Price: \$85.00



Metal Lord Ganesha

Description: Metal Lord Ganesha in Red Dhoti on Green Leaf Wall Hanging

Price: \$45.00

## Orders Page:



ShopQuick

Furniture Garden and Outdoor Wall Decorations Lighting



Cart

Wishlist

Orders

Tharun kumar Chinchili

Sign Out

### Orders

Order #	Customer Name	Customer Email	Customer phone	Shipping Address	Total	Order Date	Status	Action
2	Tharun kumar Chinchili	chtharun973@gmail.com	123	abc	\$147.00	Jul 14, 2022	New	Show Cancel

Previous



Next

## My Cart Page:

 ShopQuick

Furniture Garden and Outdoor Wall Decorations Lighting

Cart Wishlist Orders Tharun kumar Chinchili Sign Out

### My Cart

Photo	Name	Price	Quantity	Subtotal	Action
	Fresh Flowers Bouquet	\$90.00	- <input type="button" value="1"/> +	\$90.00	<a href="#">Remove</a>
	Led Couple Peacock Birds	\$57.00	- <input type="button" value="1"/> +	\$57.00	<a href="#">Remove</a>

Select Coupon:  Total: \$147.00 [Checkout](#)

## Admin Sign In Page:

 ShopQuick

Furniture Garden and Outdoor Wall Decorations Lighting

Cart Sign In Sign Up



Sign In

Email address

Password

Remember Me

## Products Page:

**ShopQuick**

To exit full screen, move mouse to top of screen or press F11

Products

No file chosen

Photo	Code	Name	Type	Description	Price	Stock	Status	Action	Mail
	AF001	Fresh Flowers Bouquet	Drink	unique flower- Fresh Flowers Bouquet Arrangement Indoor Plant-orchid bouquet	\$90.00	35	Available	<a href="#">Edit</a>	<a href="#">email</a>
	AF002	Artificial Cherry Orchid Flower	Drink	Blooming Floret Artificial Cherry Orchid Flower Bunch	\$76.00	75	Available	<a href="#">Edit</a>	<a href="#">email</a>
	AF003	Artificial Marigold Flower	Drink	Diwali Wedding Party Garden Craft Wall Home Door Decoration Theme	\$82.00	20	Available	<a href="#">Edit</a>	<a href="#">email</a>
	IF001	Space Gingko Leaf	Books	Showpieces Metal Table Top Gold Ornament for Showcase	\$50.00	22	Available	<a href="#">Edit</a>	<a href="#">email</a>
	IF002	Seven Chakra Crystal Tree	Books	Feng Shui Items for Positive Energy	\$65.00	60	Available	<a href="#">Edit</a>	<a href="#">email</a>

## Coupons Page:

**ShopQuick**

Discount Users Stocks Orders Admin Sign Out

Coupons

Couponcode	Action
Previous	Next

## Users Lists Page:

The screenshot shows the 'Users' page of the ShopQuick application. At the top, there is a navigation bar with the ShopQuick logo, a search bar containing 'Enter Some Text To Search', and links for Discount, Users, Stocks, Orders, Admin, and Sign Out. Below the navigation bar is a heading 'Users'. A search bar is present above a table. The table has columns for Email, Name, Role, and Action. It lists four users: admin@eshop.com (Admin, ROLE\_MANAGER), oneacc2070@gmail.com (Ch Tharun kumar, ROLE\_CUSTOMER), threeacc2070@gmail.com (two, ROLE\_CUSTOMER), and chtharun973@gmail.com (Tharun kumar Chinchili, ROLE\_CUSTOMER). Each row in the table includes an 'Action' column with a 'Remove Admin' button. Below the table is a pagination control with 'Previous', a blue circular page indicator, and 'Next'.

Email	Name	Role	Action
admin@eshop.com	Admin	ROLE_MANAGER	<button>Remove Admin</button>
oneacc2070@gmail.com	Ch Tharun kumar	ROLE_CUSTOMER	<button>Add Admin</button>
threeacc2070@gmail.com	two	ROLE_CUSTOMER	<button>Add Admin</button>
chtharun973@gmail.com	Tharun kumar Chinchili	ROLE_CUSTOMER	<button>Add Admin</button>

## Edit Profiles Page:

The screenshot shows the 'Edit Profiles' page of the ShopQuick application. At the top, there is a navigation bar with the ShopQuick logo, links for Furniture, Garden and Outdoor, Wall Decorations, Lighting, Cart, Wishlist, Orders, Tharun kumar Chinchili, and Sign Out. Below the navigation bar is a heading 'Edit Profiles'. The page contains a form with fields for Email address, Name, Password, Phone, and Address. The 'Email address' field is filled with 'chtharun973@gmail.com'. The 'Name' field is filled with 'Tharun kumar Chinchili'. The 'Password' field is empty. The 'Phone' field is filled with '123'. The 'Address' field is filled with 'abc'. At the bottom of the form is a blue 'Update' button.

Email address  
chtharun973@gmail.com

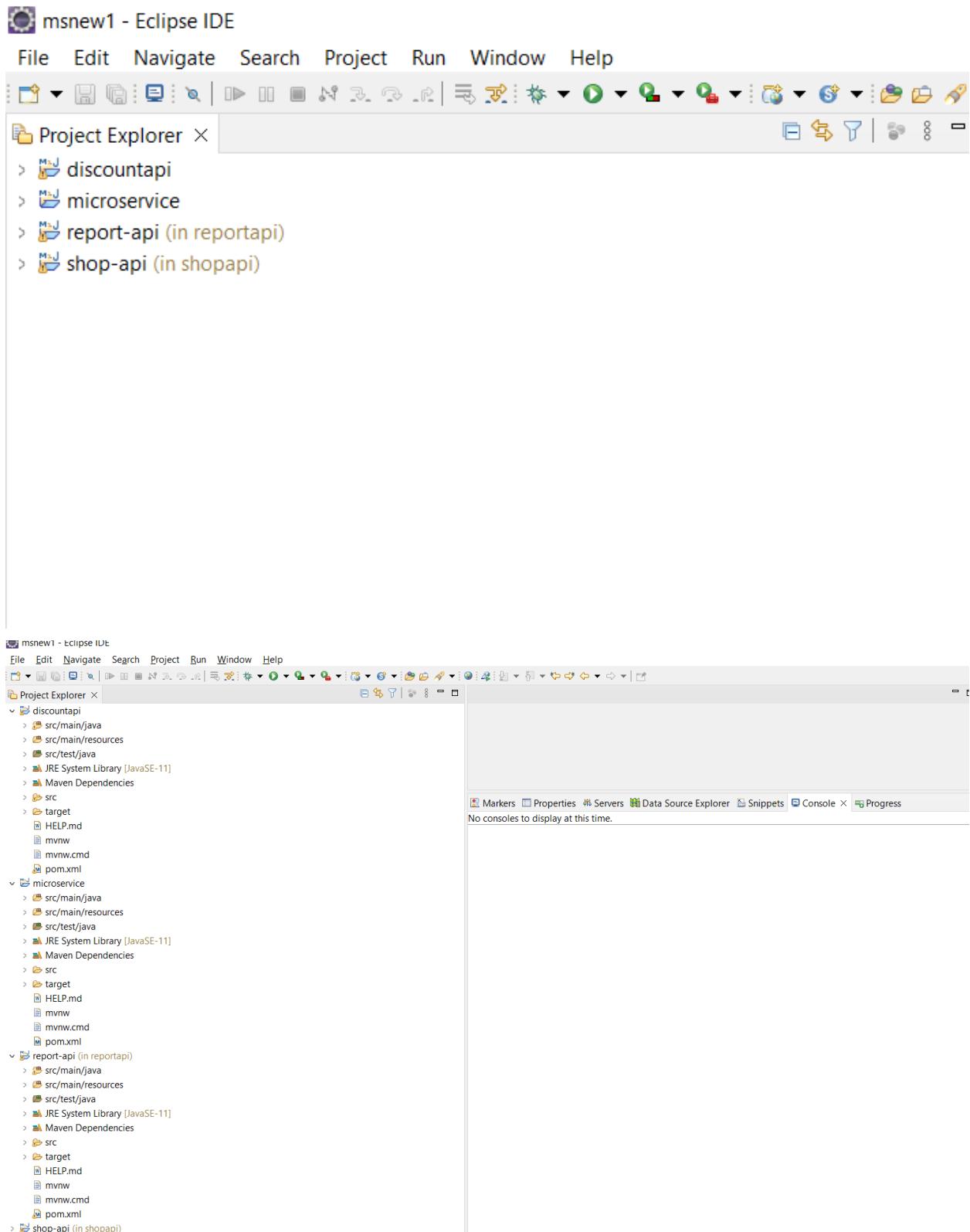
Name  
Tharun kumar Chinchili

Password

Phone  
123

Address  
abc

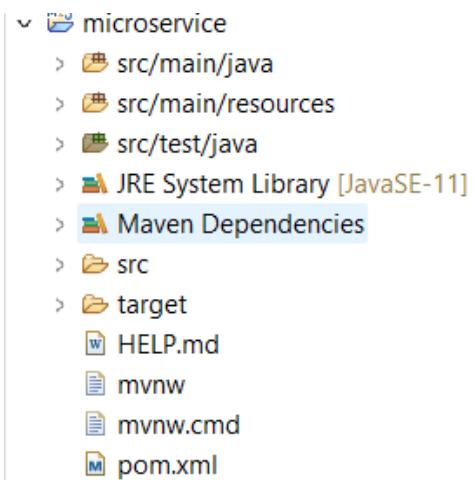
## Microservices Structures:



## Discount MicroService



## MicroService



---

## Report MicroService

```
✓ ⚡ report-api (in reportapi)
  > 📂 src/main/java
  > 📂 src/main/resources
  > 📂 src/test/java
  > 📂 JRE System Library [JavaSE-11]
  > 📂 Maven Dependencies
  > 📂 src
  > 📂 target
    📄 HELP.md
    📄 mvnw
    📄 mvnw.cmd
    📄 pom.xml
```

## Shop MicroService

```
✓ ⚡ shop-api (in shopapi)
  > 📂 src/main/java
  ✓ 📂 src/main/resources
    📄 application.yml
    📄 application-docker.yml
    📄 import.sql
  > 📂 src/test/java
  > 📂 JRE System Library [JavaSE-11]
  > 📂 Maven Dependencies
  > 📂 src
  > 📂 target
    📄 Dockerfile
    📄 mvnw
    📄 mvnw.cmd
    📄 pom.xml
```

## DataBase Tables:

Navigator: product\_info cart discount order\_main product\_category product\_cat

SCHEMAS

Filter objects

ecommerce

- Tables
  - cart
  - discount
  - order\_main
  - product\_category
  - product\_in\_order
  - product\_info
  - users
  - wishlist
- Views
- Stored Procedures
- Functions

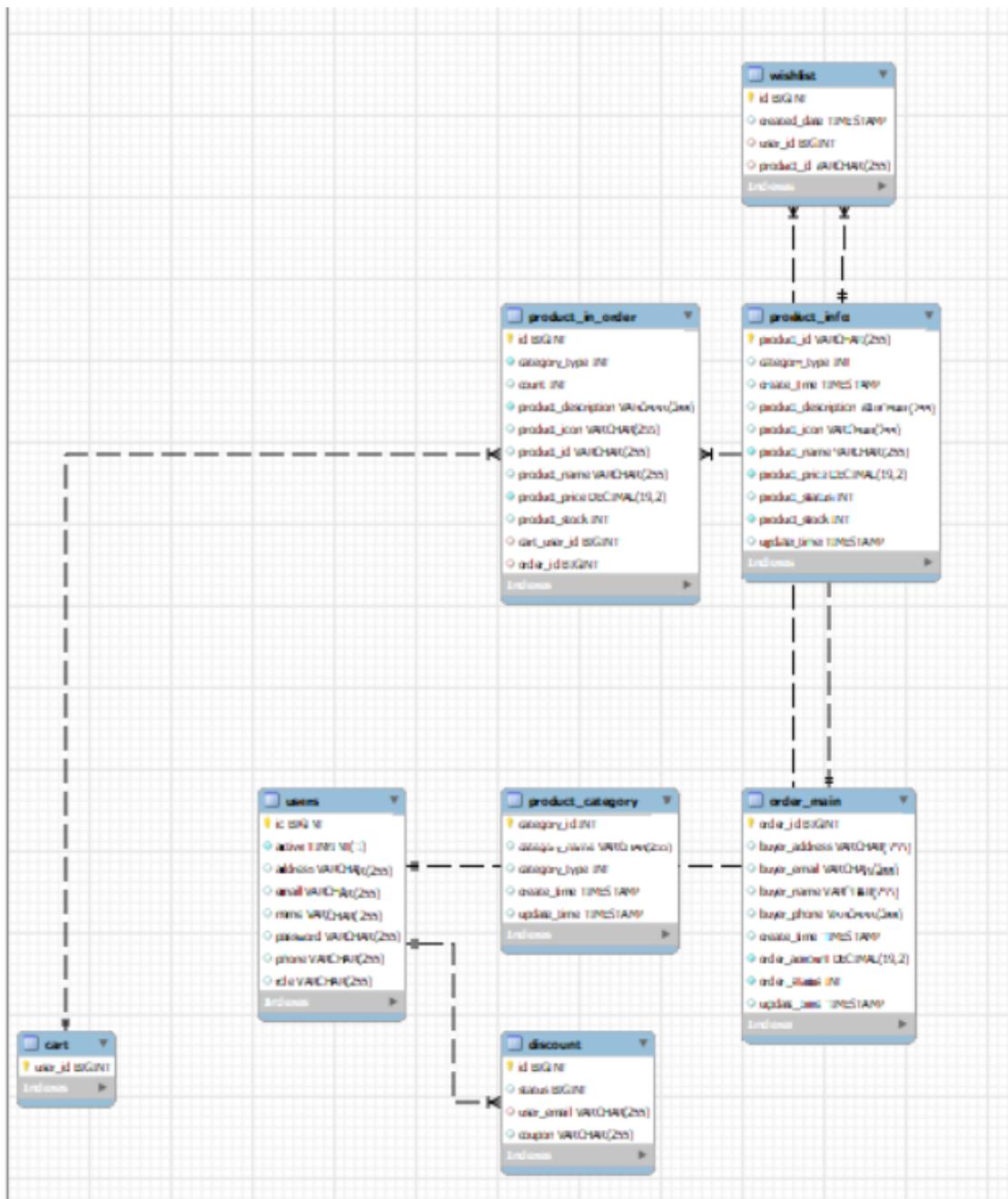
sys

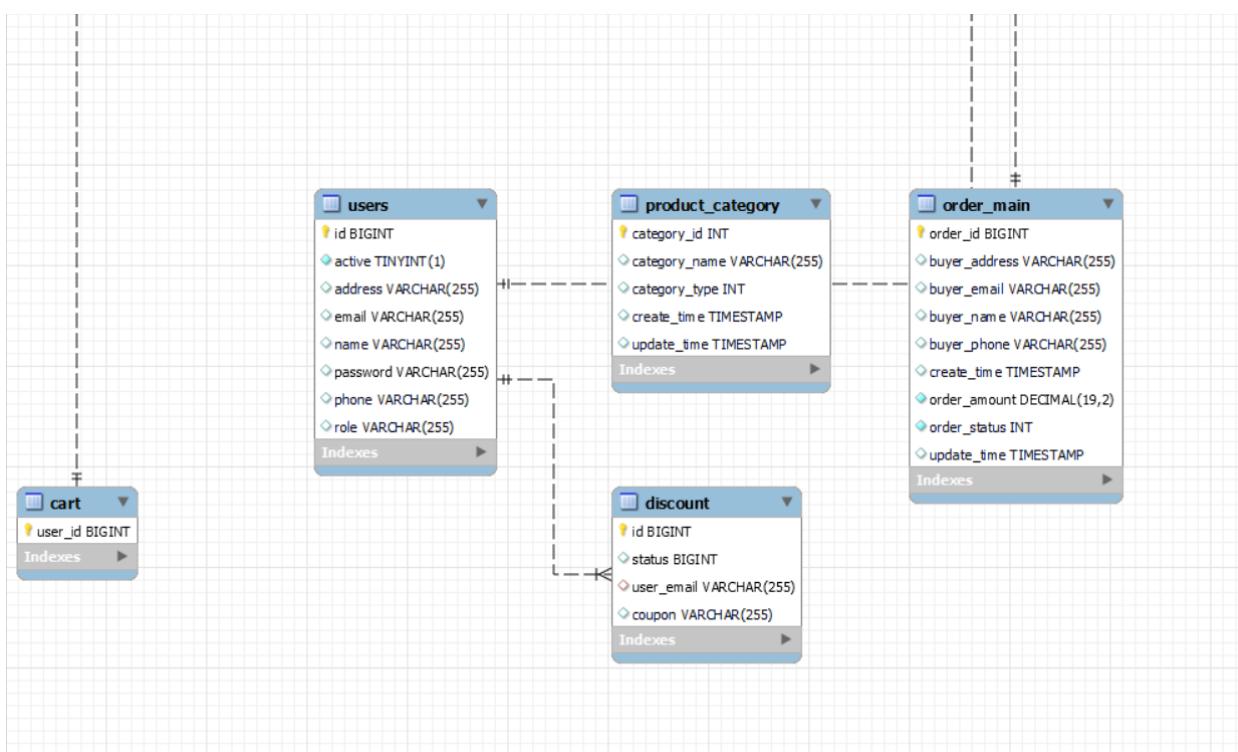
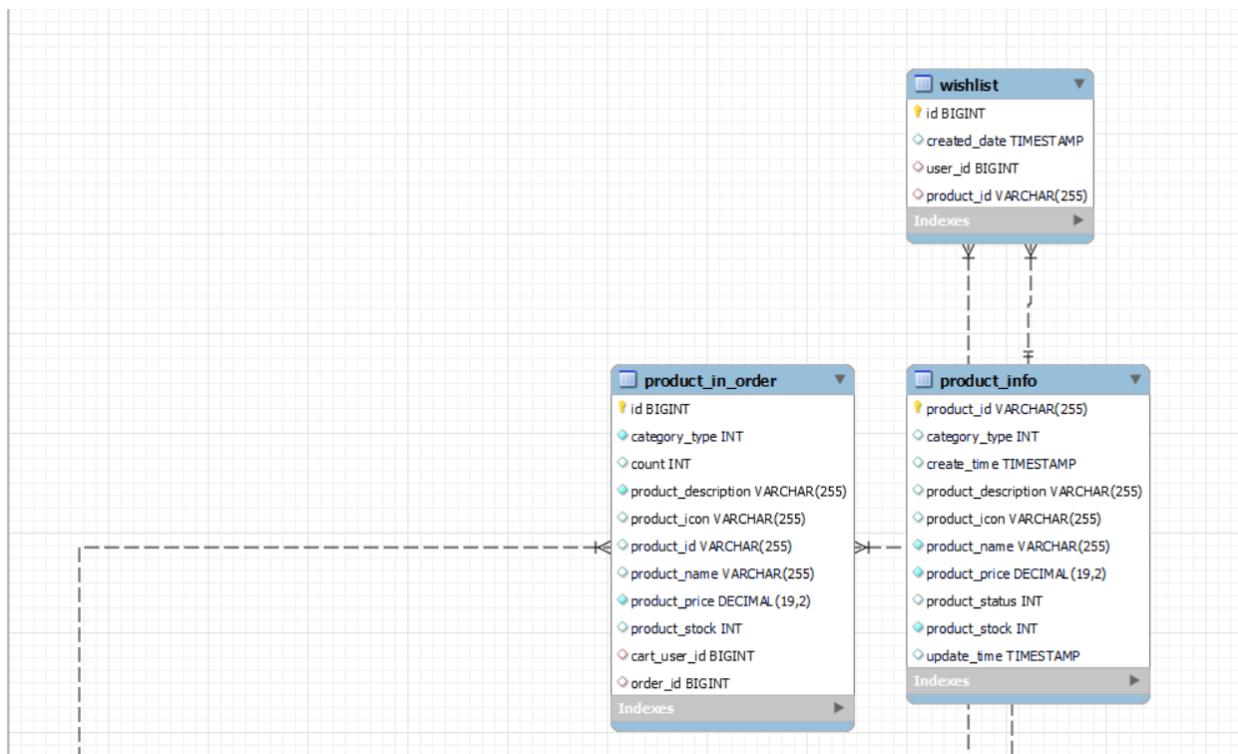
Administration Schemas

1 • `SELECT * FROM ecommerce.product_info;`

Result Grid | Filter Rows: | Edit: | Export/Import: |

	product_id	category_type	create_time	product_description
▶	B0011	0	2022-07-14 08:04:01	Computer Table with Drawers
	B0012	0	2022-07-14 08:04:01	Wooden 4 Seater Dining Table Set
	B0013	0	2022-07-14 08:04:01	Colourful Fabric Chair
	B0014	0	2022-07-14 08:04:01	Rectangular Wooden Console Table
	B0015	0	2022-07-14 08:04:01	Wooden Center Table
	C0011	2	2022-07-14 08:04:01	Iron Titan Leaf Metal Wall Art
	C0012	2	2022-07-14 08:04:01	Iron Double Ring In Flower Wall Art





---

## **Unique Selling Points of the Application**

1. The application is designed to keep on running and taking user inputs even after exceptions occur. To terminate the application, an appropriate option needs to be selected.
2. With this application, one can easily access the product items as their own by adding a cart.
3. Total price is also determined by its own.
4. Any user can sign up and there are no restrictions.
5. Online payment is also accepted.

## **Conclusion**

At the end of the project we have created a fully functional e-commerce website for furniture and Home decors.

---