CS 6314.002 Web Programming Languages

Electronics Ecommerce Website

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Project Description:

Our project is an implementation of an electronic ecommerce website where customers are able to view a list of electronic products such as monitors, keyboards, mobile and laptops each having multiple copies and are able to add , delete in the carts. The website lets you search and filter the products based on search query being provided in search box.

Important Components of the System
The main important actors in the domain are - Admin and Users, which form the very basic foundation of the electronics website.

➜ **Admin** - a person who has additional access to features of the ecommerce portal who is able to view all the products in the ecommerce website, add new products,
delete products, edit products.
Only the admin can add/change the picture of the product added in the ecommerce portal.

➜ **User** - a person who is registered on to the public ecommerce portal and has the ability to view products, add to carts and delete books.

Architecture:

The Online Ecommerce Website is a full-fledged scalable web-based application based on NodeJS, Express, HBS (handlebars), CSS (Cascading Style Sheets), Bootstrap and MongoDB for the database. The architecture of the entire web application is as follows:
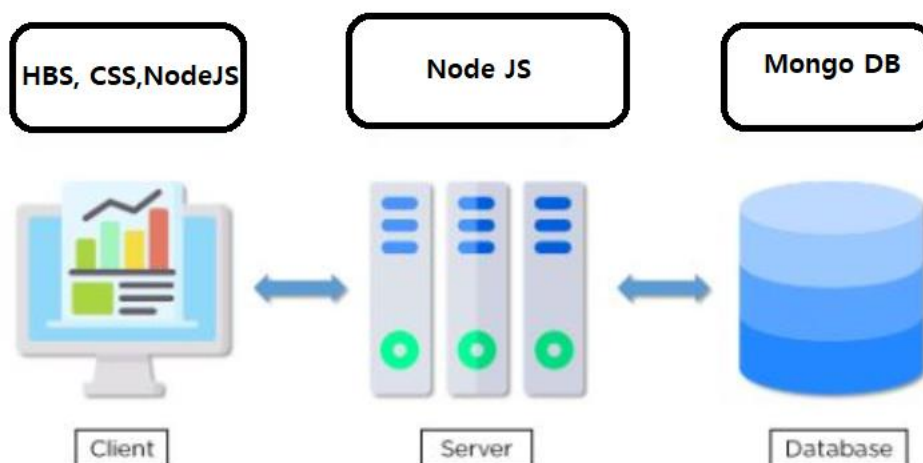
TECHNOLOGIES USED

➜ Front End Design
For designing the front end on HBS files, CSS and bootstrap components have been used.
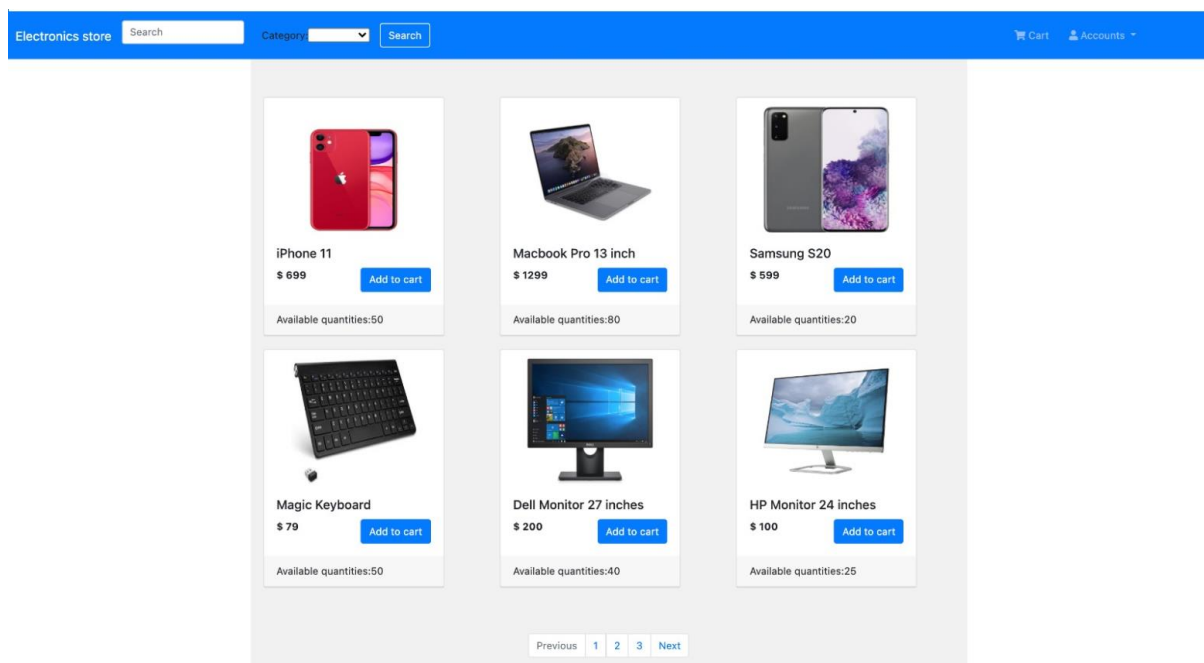
➜ Back End Design
For server-side scripting, we have used NodeJS and Express JS.
A relational database has been made for the application which uses MongoDB.

FUNCTIONALITIES

1. Homepage
The main page shows the user an option to either create a new account into the electronic ecommerce website or login using the registered credentials.

2. User Sign-Up

On clicking the signup button on the homepage, it redirects to '/signup' where the user needs to entire the following details:

3. Existing User Login

On the homepage, the existing user can enter the registered email address and password to login to the portal. One can login on the portal either as an admin or a user.
On clicking on the Login button, the form first checks the database for the right credentials entered. If successful, the user will be logged in and taken to the home page. If not, then the 'Invalid Email or Password' message will be displayed.
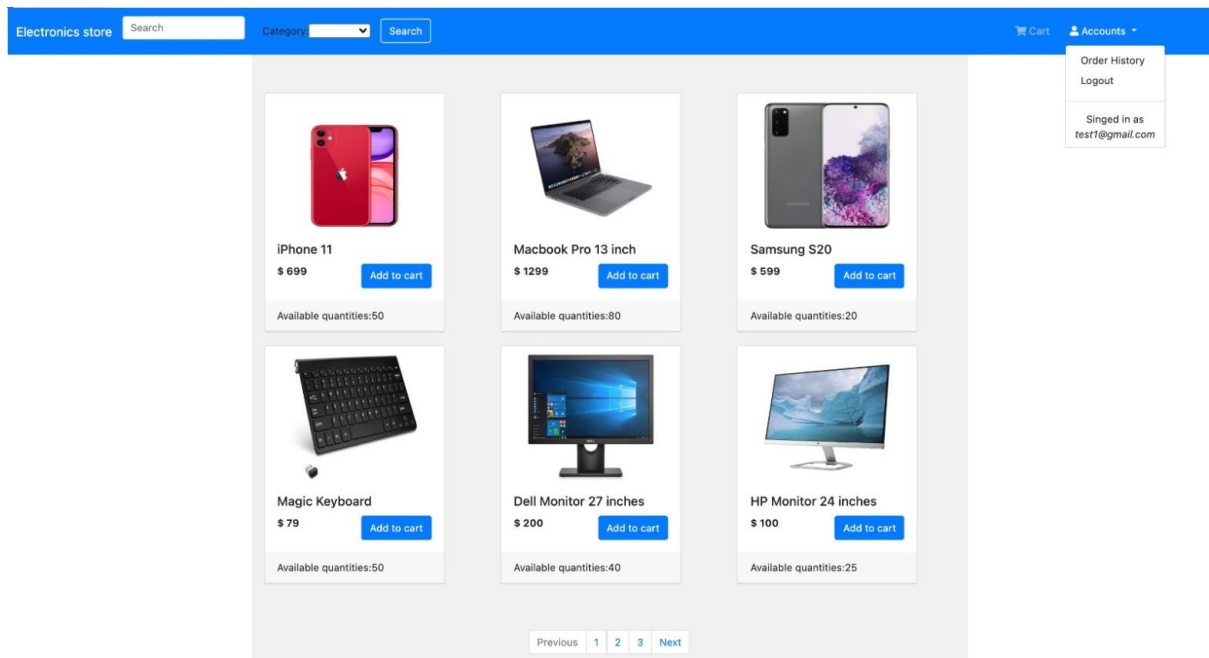
Email address – Missing credentials
Password – Missing credentials

4. Customer Homepage

User can view the homepage like homepage that lists the available products, cart pages which can show the products in the carts.
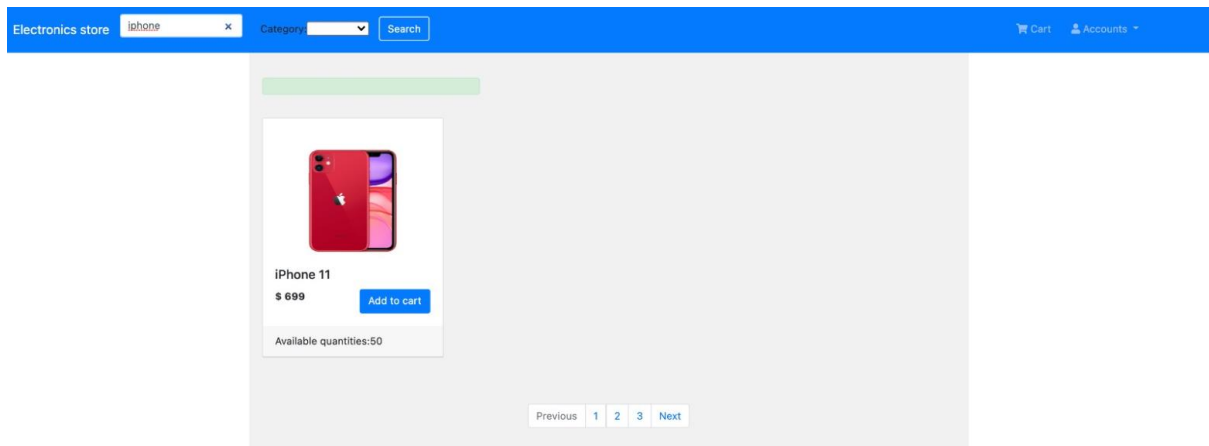

5. Search & Filter

All the electronic products will be displayed on the homepage and a specific product can be found by selecting a criterion from dropdown or providing a search query in search box.
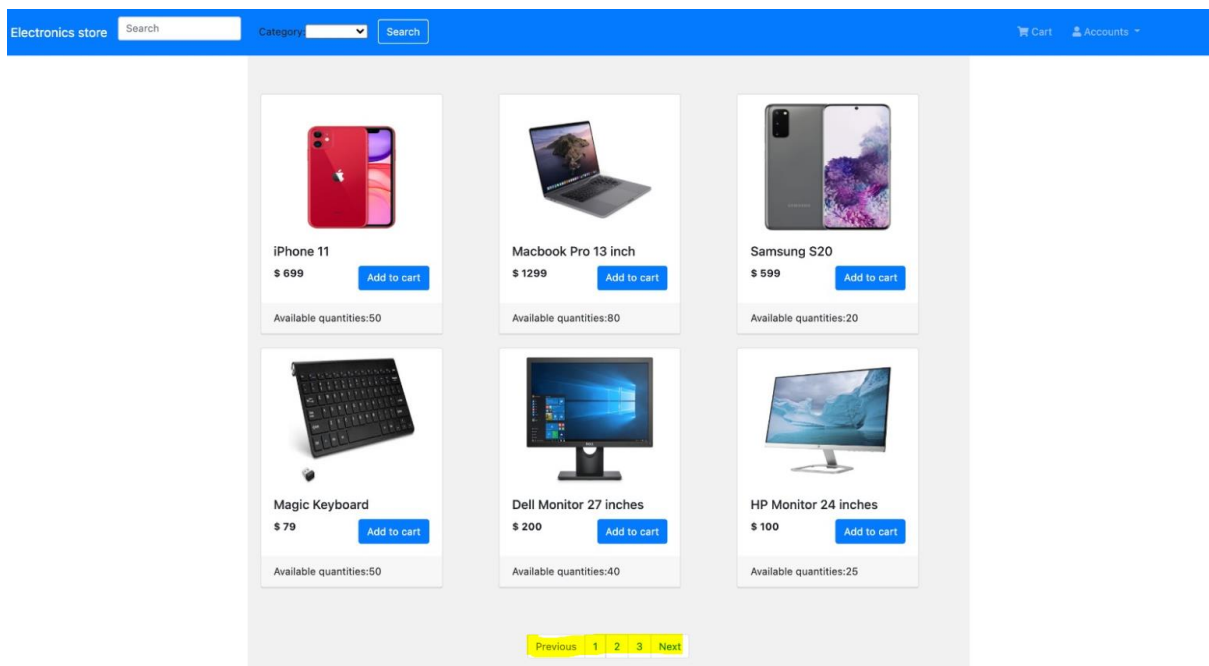
There are four cases based on the input values provided in search box and selected from dropdown.
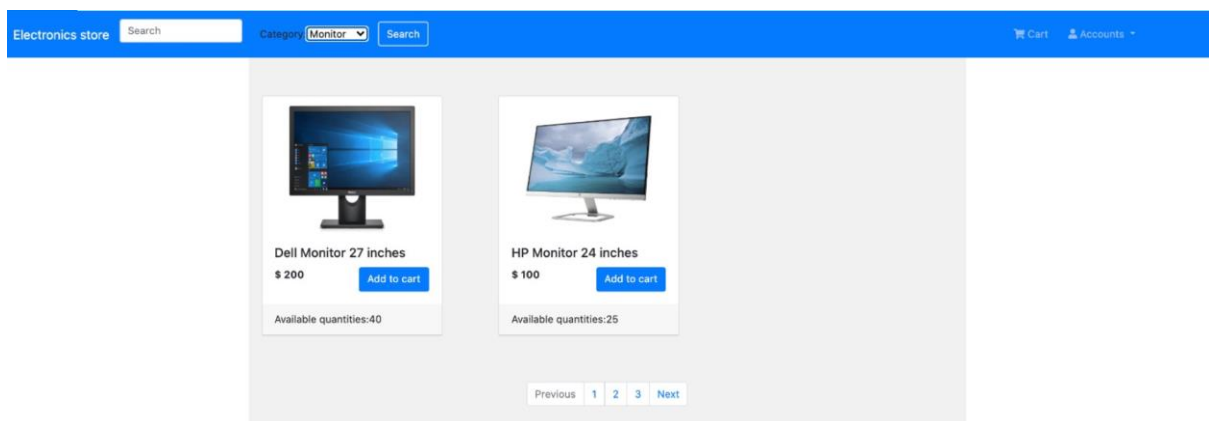
6. Pagination

Paging functionality includes dividing the images into several pages like when a user searches, the data fetched is huge, so we need to divide the pages into different segments.


Pagination can be seen across all the webpages.

7. Cart

After choosing the electronic products from the homepage, the products go into the cart. From the cart, user has the option to add or remove the products from the cart.

To order the products, user has to click on the "Place Order" button to order it. As soon as user clicks on place order user can see order placed successfully message on the screen.
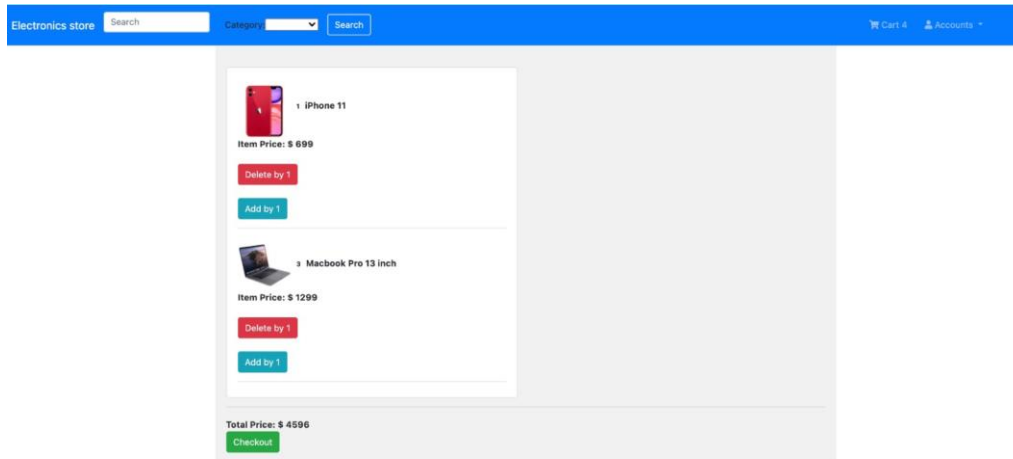
8. View Order History

Once the products are checked out, the currently ordered products can be viewed by clicking on order history page.
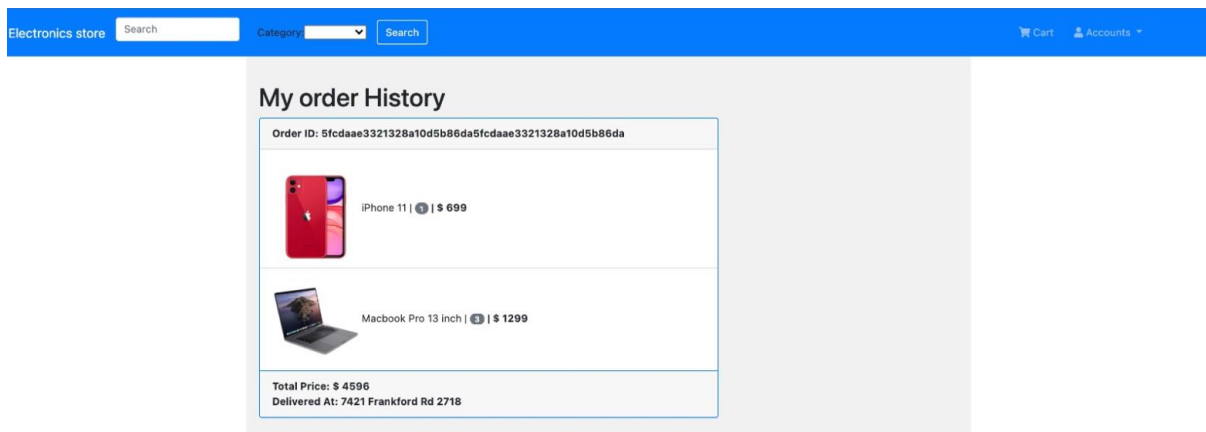
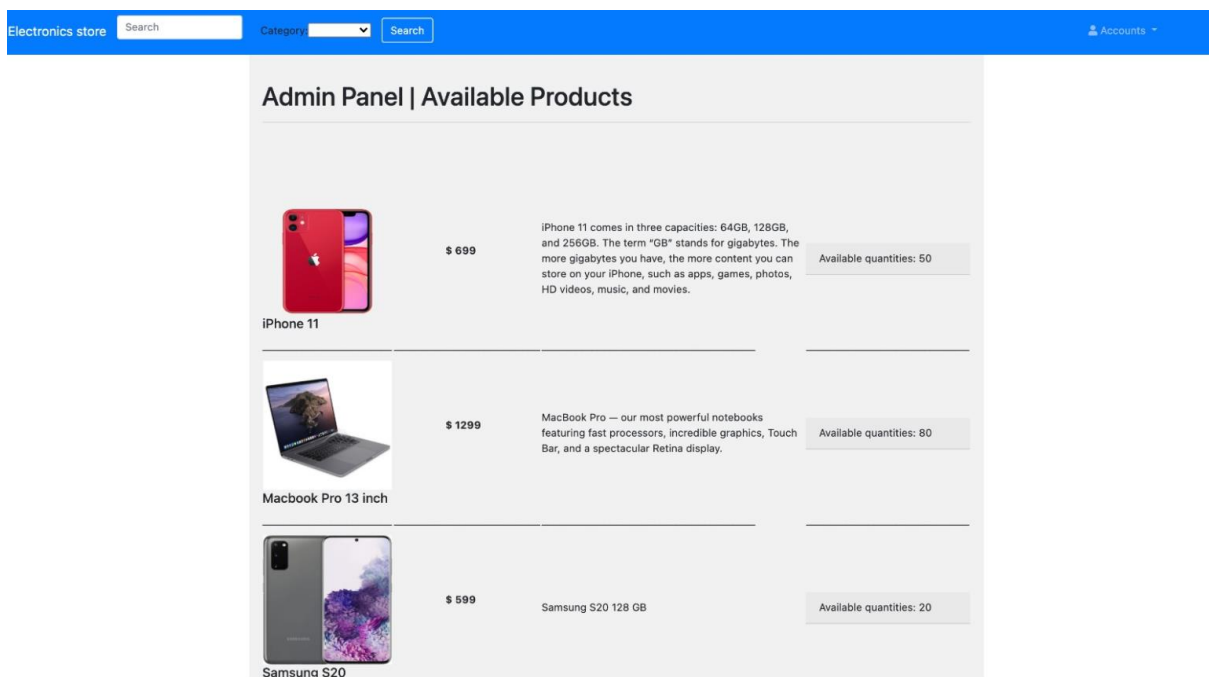**ADMIN**

1. Welcome Page for Admin

2. Viewing all the products

All the products will be displayed if the admin clicks on show products button from homepage of admin.

2. Adding new product

Admin can add new product to the database by entering all the details of the products when a form is redirected from clicking on add product button, and then product is accessible to user.

Before adding monitor:

Admin Panel

Add Product

Name

HP Monitor

Description

Excellent quality and display

Price

299

Quantity

50

Select Category [Monitor ▼]

Picture

https://images-na.ssl-images-amazon.com/images/I/71MSEFI77DL._AC_SX679_.jpg

[Add Product]

After adding monitor:

iPhone 11
$ 699   [Add to cart]
Available quantities:50

Macbook Pro 13 inch
$ 1299   [Add to cart]
Available quantities:80

Samsung S20
$ 599   [Add to cart]
Available quantities:20

Magic Keyboard
$ 79   [Add to cart]
Available quantities:50

Dell Monitor 27 inches
$ 200   [Add to cart]
Available quantities:40

HP Monitor 24 inches
$ 100   [Add to cart]
Available quantities:25

Previous 1 2 3 Next

3. Update existing product

4. Soft Delete

Products can also be soft deleted. When we click delete, a product is soft deleted from the screen but will be present in the database.

Before soft delete iphone11:

After soft delete iphone11:

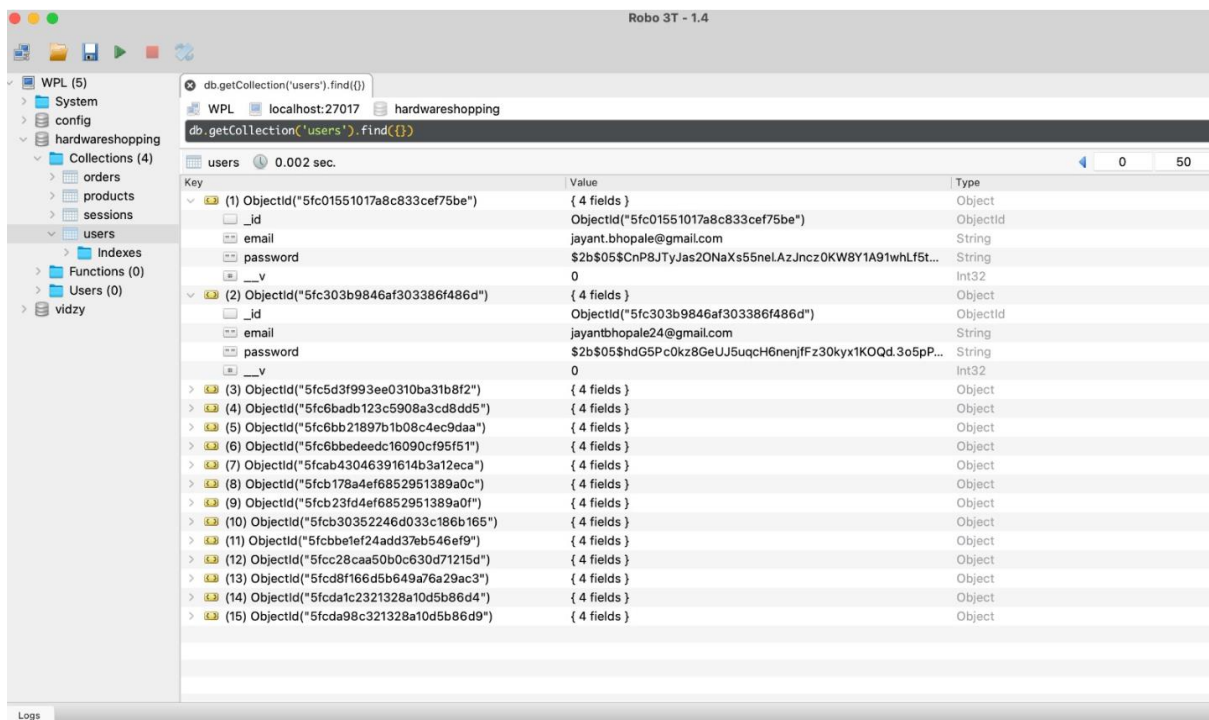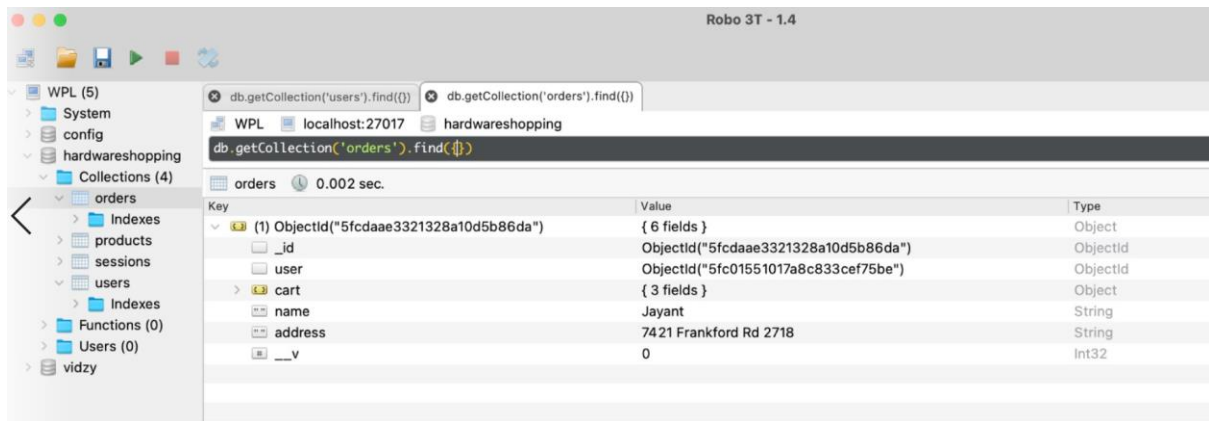But it exists in backend:
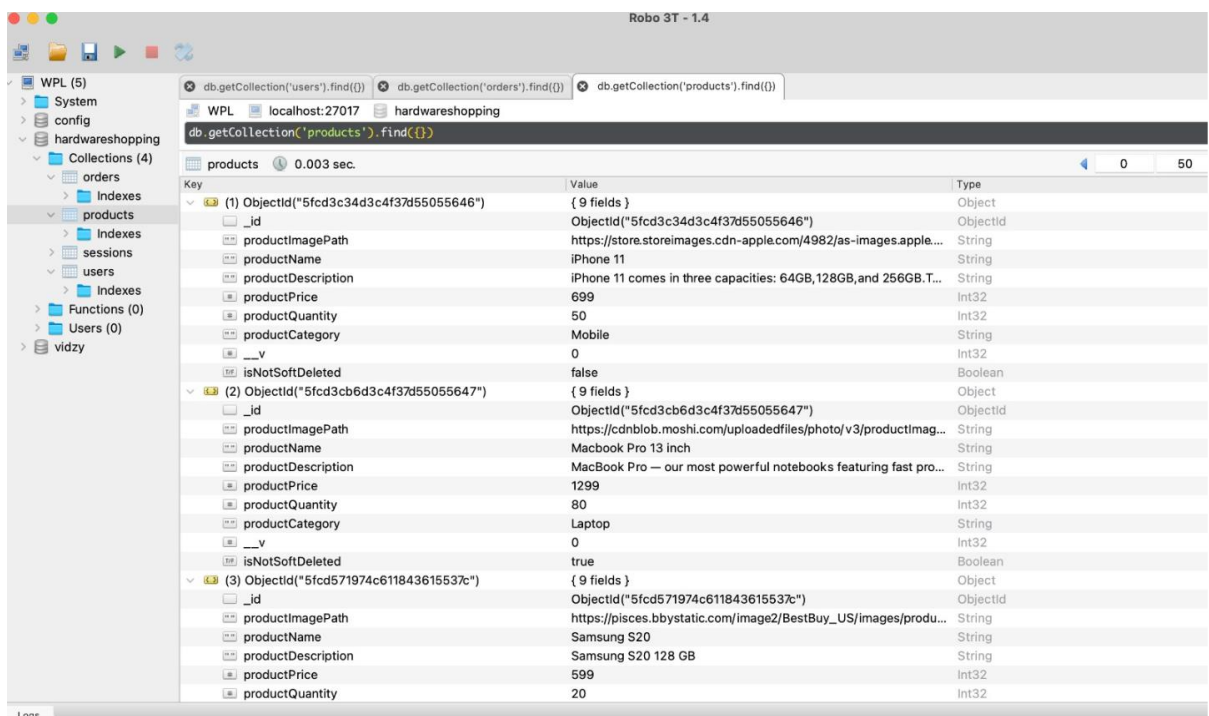
Database Design

For setting up the the database, we have used mongoose module in node js and products can be added by admin using addProduct functionality

Work Distribution:

Minal Bonde: User Sign Up and Login functionality, Search & Filter based on category and name of product, Documentation, Admin soft delete

Alec: Add product feature, Testing

Jayant: Admin dashboards, Add product to cart and checkout cart, place order, order history, Validations, force login for product checkout