

**CS 6314.002 Web Programming Languages**

**Electronics Ecommerce Website**

**Team: 29**

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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.

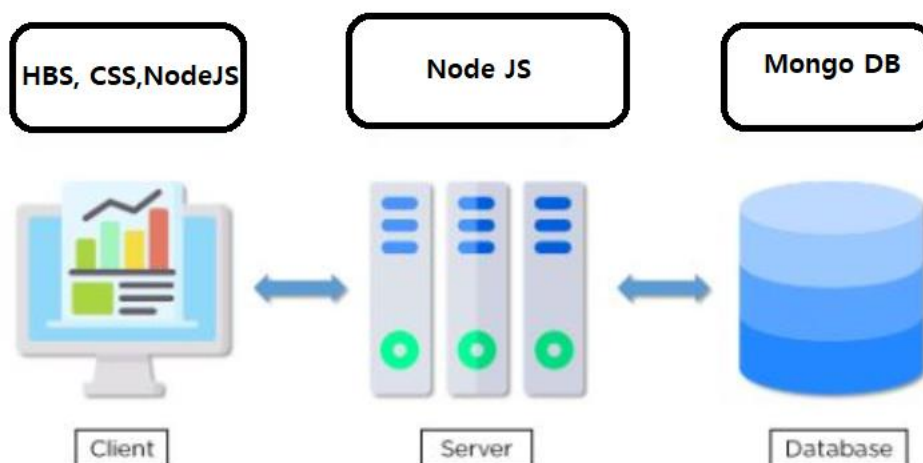
→ **Admin** - a person who has additional access to features of the ecommerce portal who is able to view all the products in the ecommerce website, add new products, delete products, edit products.

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

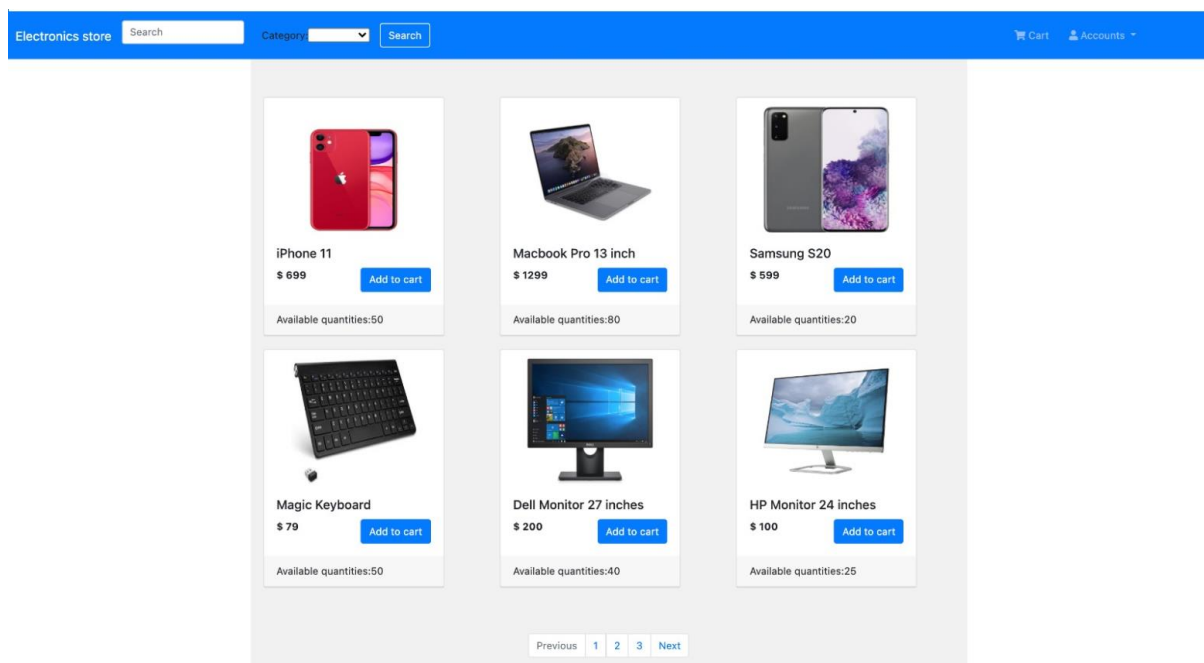
For server-side scripting, we have used NodeJS and Express JS.

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 enter the following details:

The screenshot shows the 'Sign Up' page of an 'Electronics store'. The page has a blue header with a search bar, a category dropdown, and a 'Search' button. On the right of the header are links for 'Cart' and 'Accounts'. The main content area is light gray and contains the 'Sign Up' form. The form has fields for Name (TestUser), Address (7575 Frankford Road), E-Mail (test1@gmail.com), and Password (masked with dots). A blue 'Sign Up' button is at the bottom of the form. Below the button is a link: 'Already have an account? [Login here!](#)'. Below the form, there is a section titled 'Password must contain the following:' with four green checkmarks and requirements: 'A lowercase letter', 'A capital (uppercase) letter', 'A number', and 'Minimum 8 characters'.

## 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.

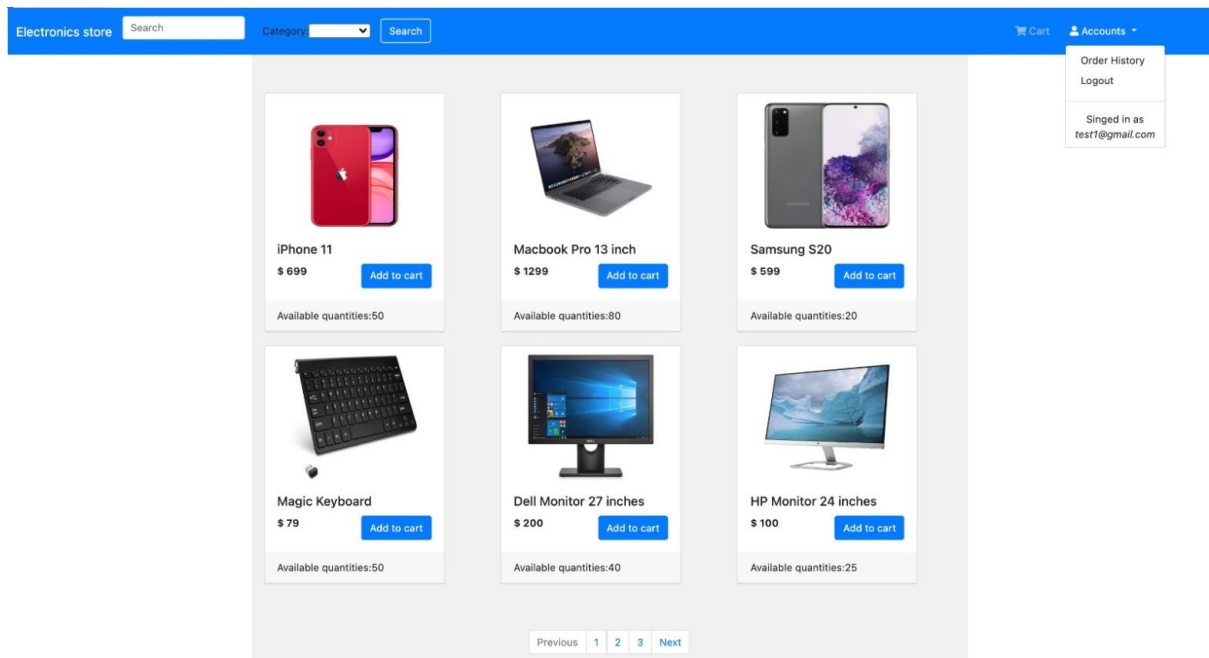
Email address – Missing credentials

Password – Missing credentials

The screenshot shows the 'Login' page of the 'Electronics store'. The page has the same blue header as the Sign Up page. The main content area is light gray and contains the 'Login' form. At the top of the form is a red error message box that says 'Missing credentials'. Below this are fields for E-Mail and Password. A blue 'Login' button is at the bottom of the form. Below the button is a link: 'Don't have an account? [Sign up here!](#)'.

## 4. Customer Homepage

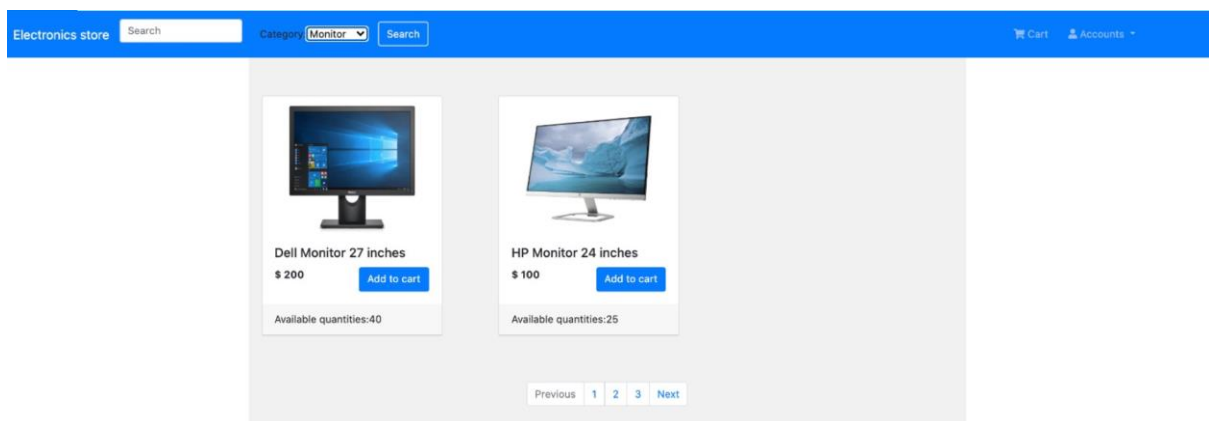
User can view the homepage like homepage that lists the available products, cart pages which can show the products in the carts.

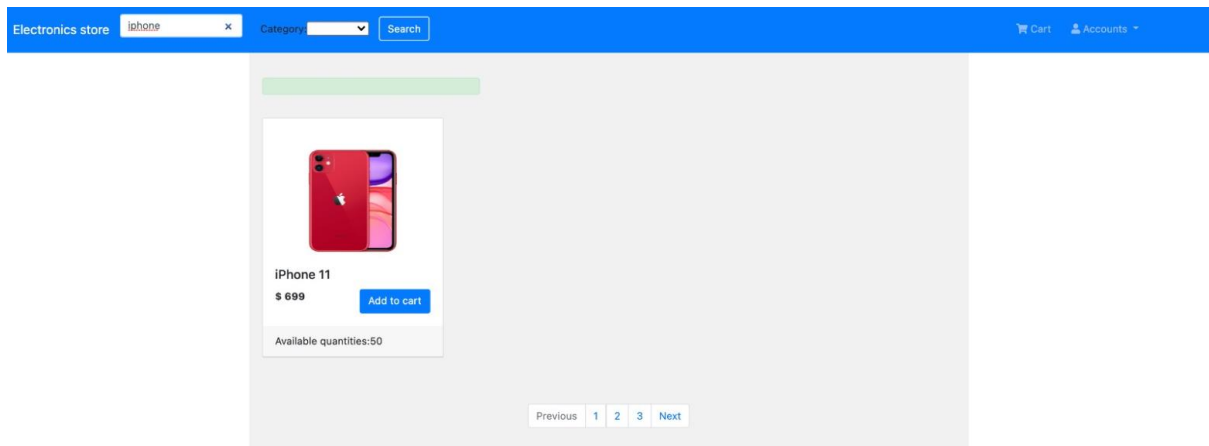


## 5. Search & Filter

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.

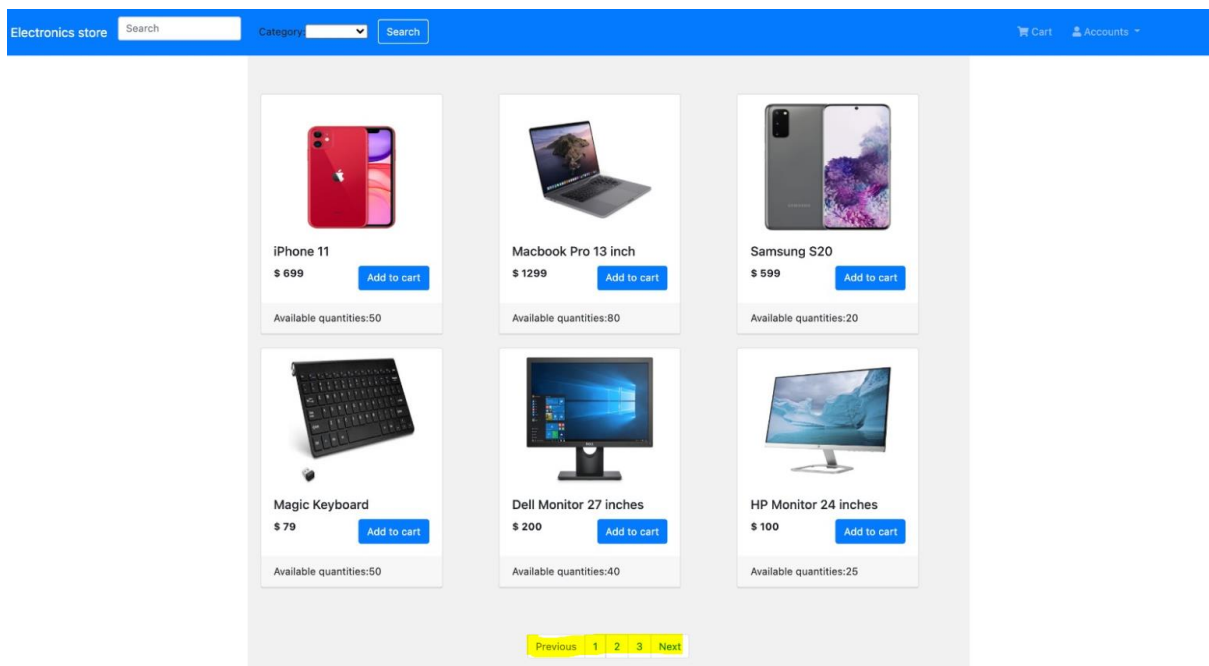
There are four cases based on the input values provided in search box and selected from dropdown.





## 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.

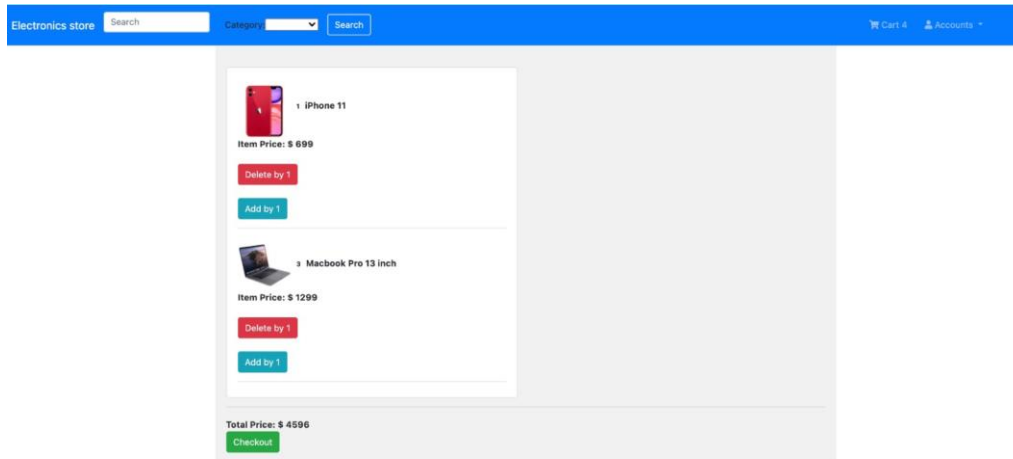


Pagination can be seen across all the webpages.

## 7. Cart

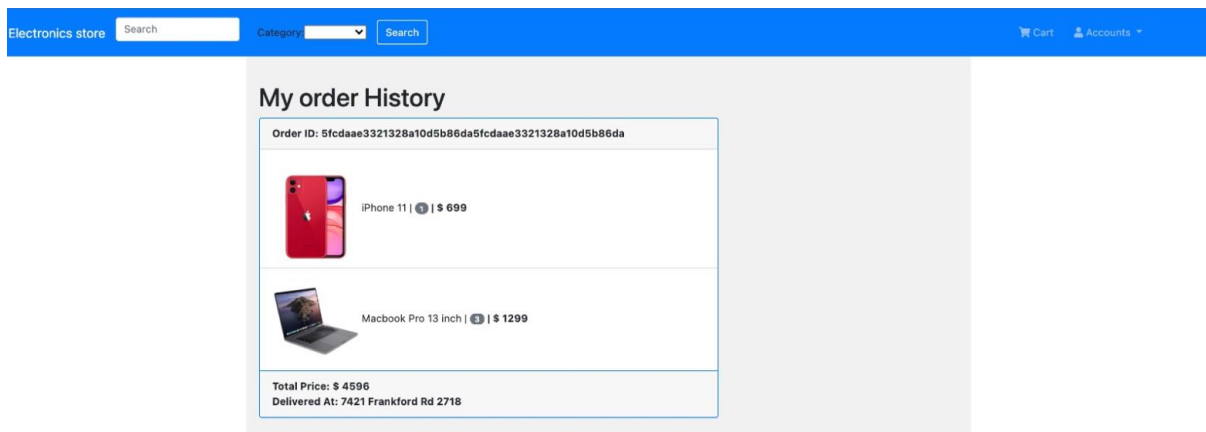
After choosing the electronic products from the homepage, the products go into the cart. From the cart, user has the option to add or remove the products from the cart.

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

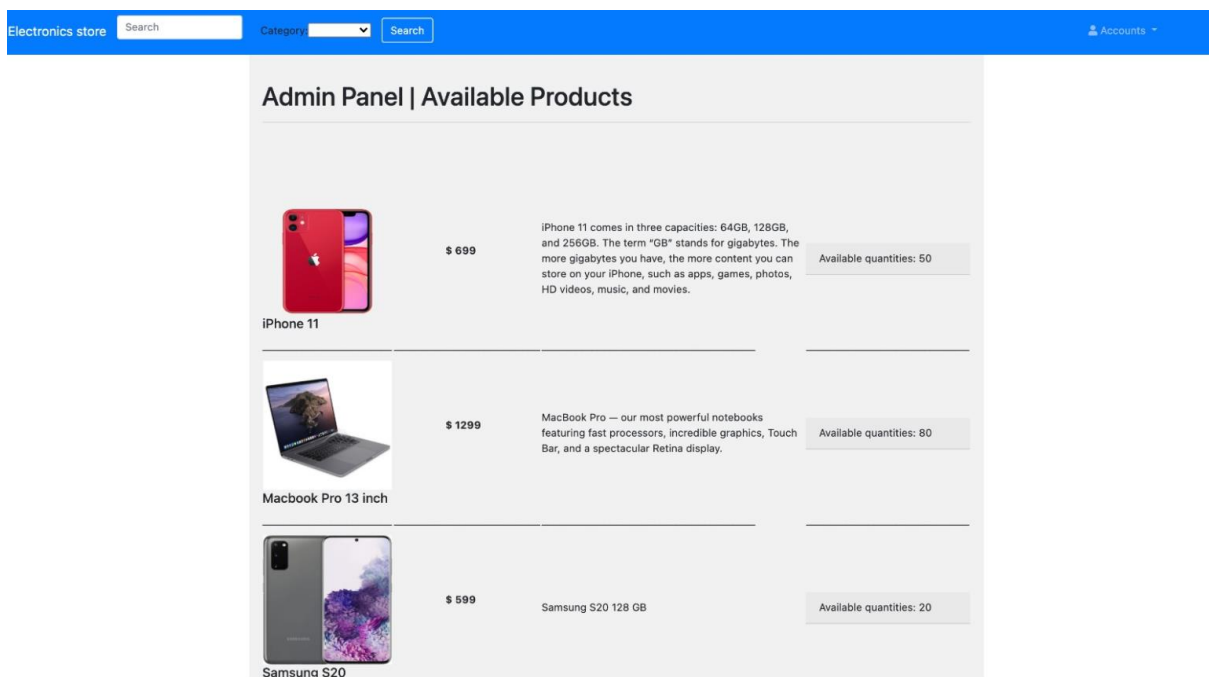
### 1. Welcome Page for Admin





## 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:

Electronics store  Category:   Accounts

### Admin Panel

#### Add Product

Name

Description

Price


Quantity

Select Category Monitor


Picture

After adding monitor:


Electronics store  Category:   Cart Accounts




**iPhone 11**  
\$ 699   
Available quantities:50




**Macbook Pro 13 inch**  
\$ 1299   
Available quantities:80




**Samsung S20**  
\$ 599   
Available quantities:20



**Magic Keyboard**  
\$ 79   
Available quantities:50



**Dell Monitor 27 inches**  
\$ 200   
Available quantities:40



**HP Monitor 24 inches**  
\$ 100   
Available quantities:25

Previous 1 2 3 Next

### 3. Update existing product

Electronics store

Search

Category

Search

Accounts

### Admin Panel

#### Update Product

Product ID

5fcd3c34d3c4f37d55056465fcd3c34d3c4f37d5505646

Name

iPhone 11

Description

iPhone 11 comes in three capacities: 64GB, 128GB, and 256GB. The term "GB" stands for

Price

699

Quantity

50

Select Category

Picture

https://store.storeimages.cdn-apple.com/4982/as-images.apple.com/is/iphone11-red-sel

Update 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:

Electronics store




Search

Category

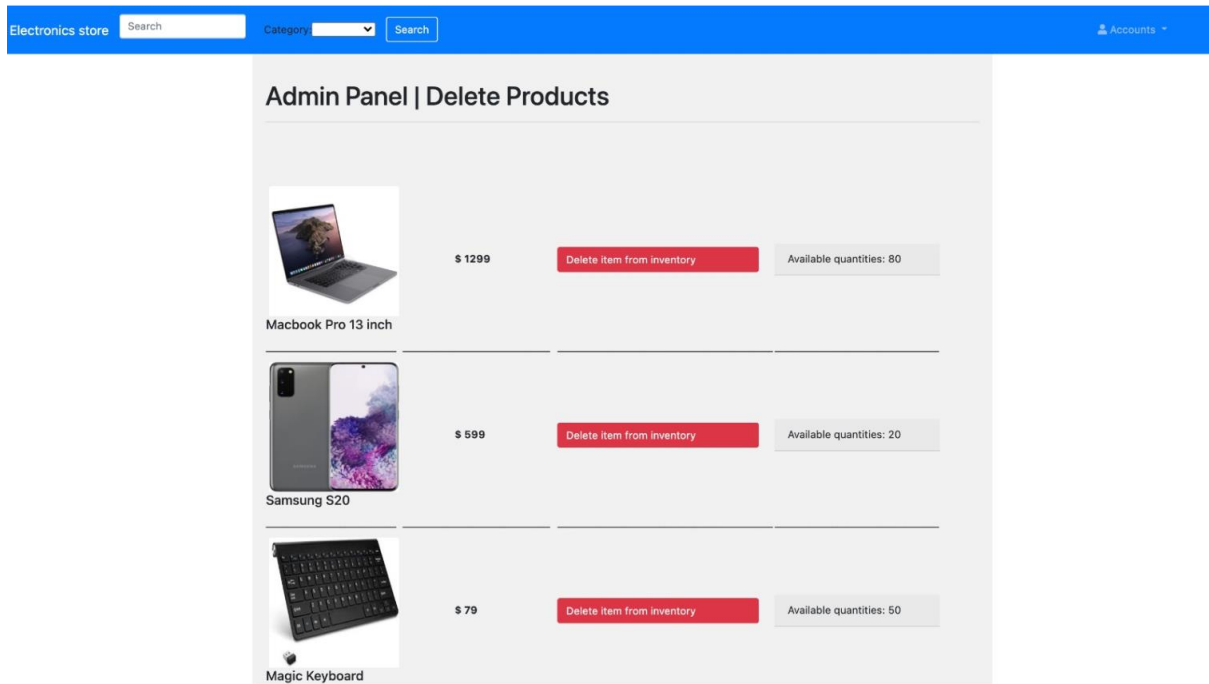
Search

Accounts

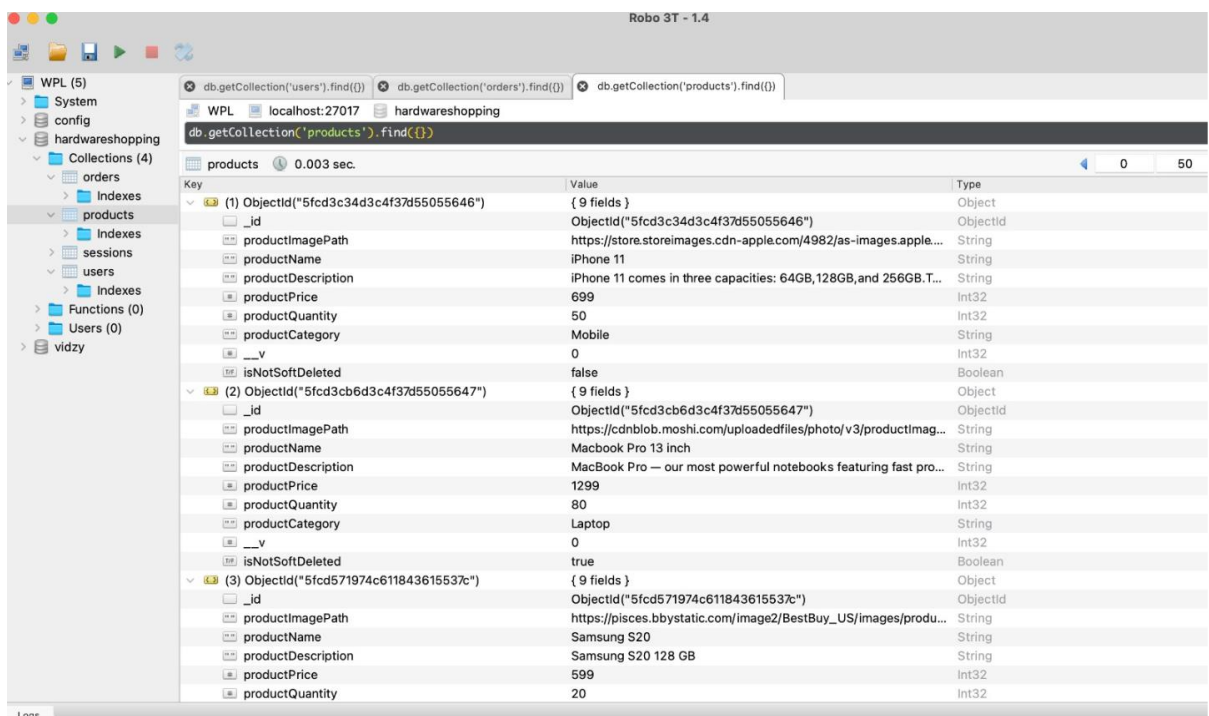
### Admin Panel | Delete Products

 iPhone 11	\$ 699	Delete item from inventory	Available quantities: 50
 Macbook Pro 13 inch	\$ 1299	Delete item from inventory	Available quantities: 80
 Samsung S20	\$ 599	Delete item from inventory	Available quantities: 20

After soft delete iphone11:

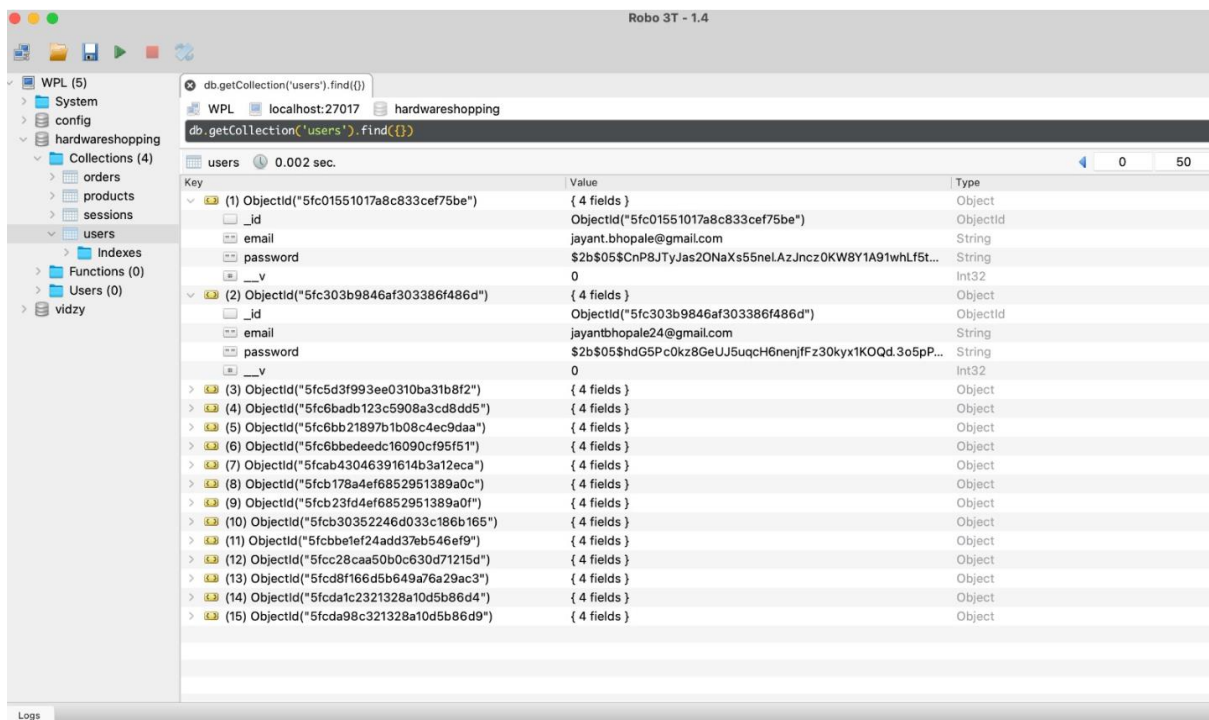
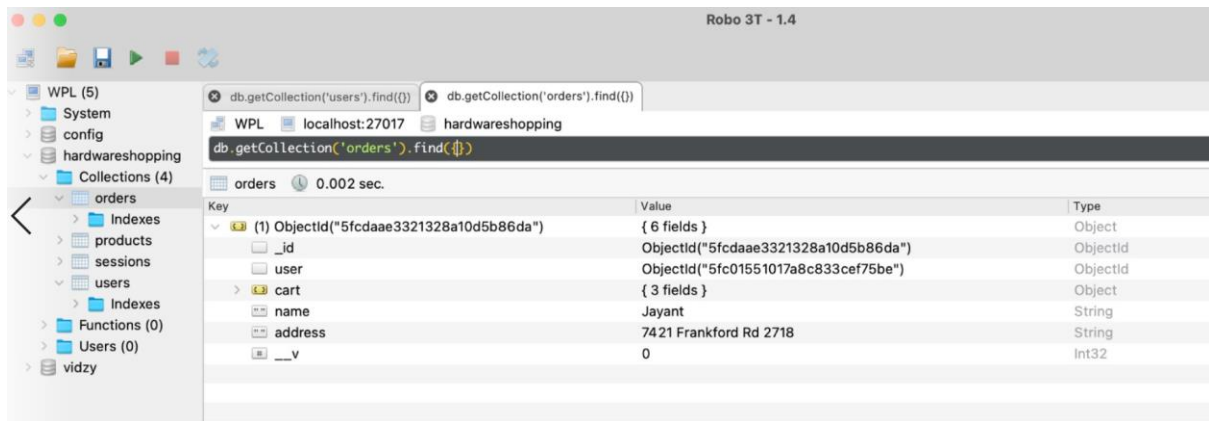


But it exists in backend:



## 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