

HO CHI MINH UNIVERSITY OF SCIENCE



FINAL PROJECT REPORT

January 7, 2024

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1 Introduction

E-commerce website is an online market platform of an enterprise that allows them to sell electronics devices. The purpose of the website is to help the enterprise to reach to more users since the rise of online marketplace due to the pandemic.

2 Product features

2.1 User features

- Login or Register
- Home page with product list
- Search with keywords, category, and brand
- Sort product by price, order, category, and brand
- View product's detail
- Update user profile
- View cart items and add items to cart

2.2 Admin features

- Login as Admin
- Change account's information
- View list of products
- Modify product (Add, update and delete)
- View list of user accounts and admin accounts
- Ban accounts
- View list of brands and categories
- Sort products, accounts by criteria

3 System architecture

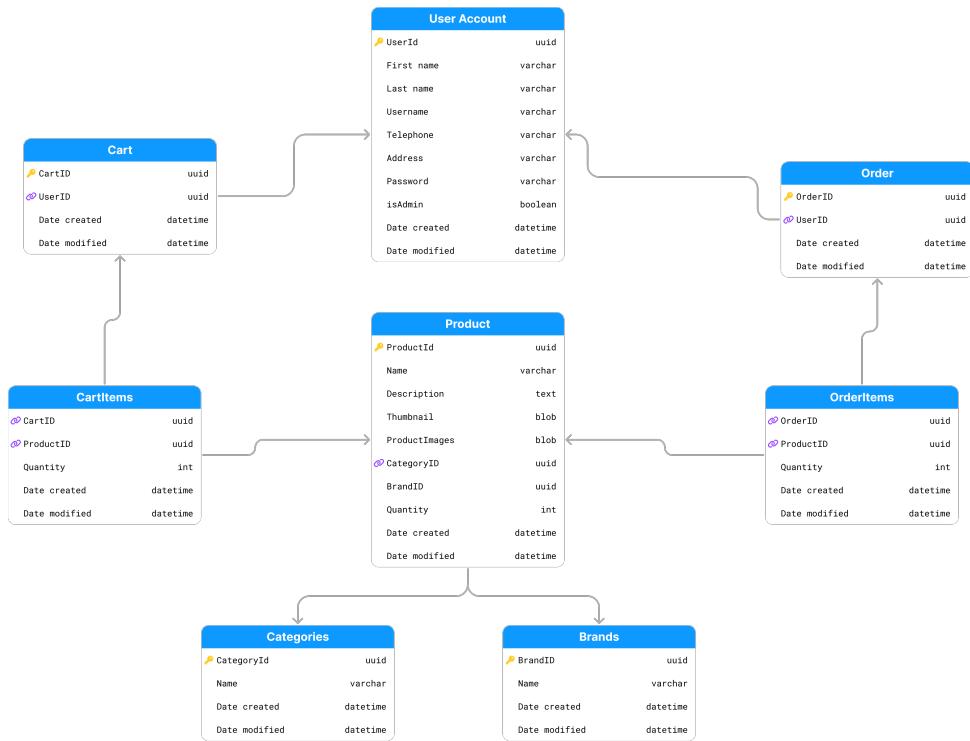


Figure 1: Database design

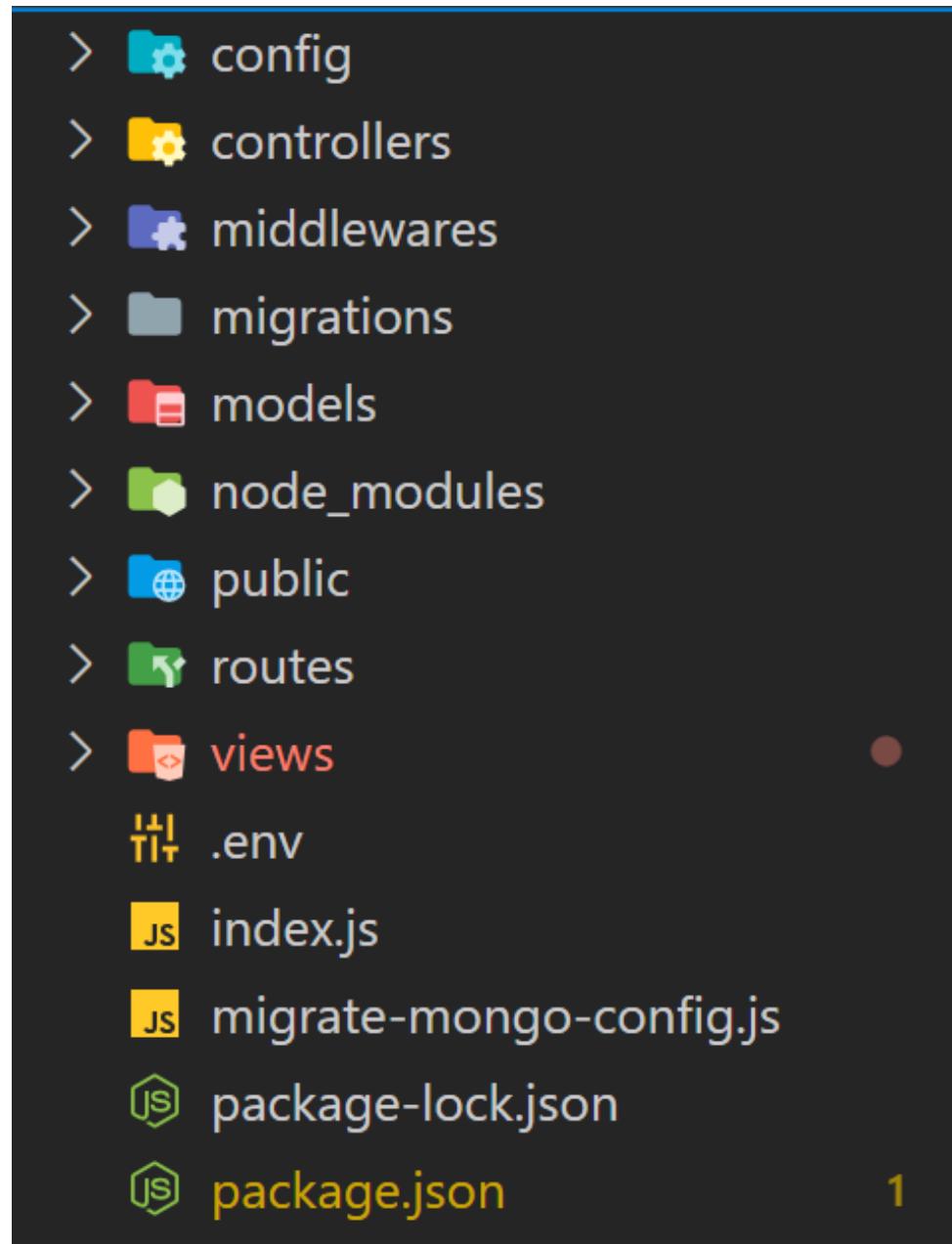


Figure 2: Folder structure

The product is build with MVC model, which includes models folder that contains database schema, controllers for website logic, views for website frontend, middlewares for product middlewares, config for product configuration files and migrations for data migration files.

4 UI/UX design

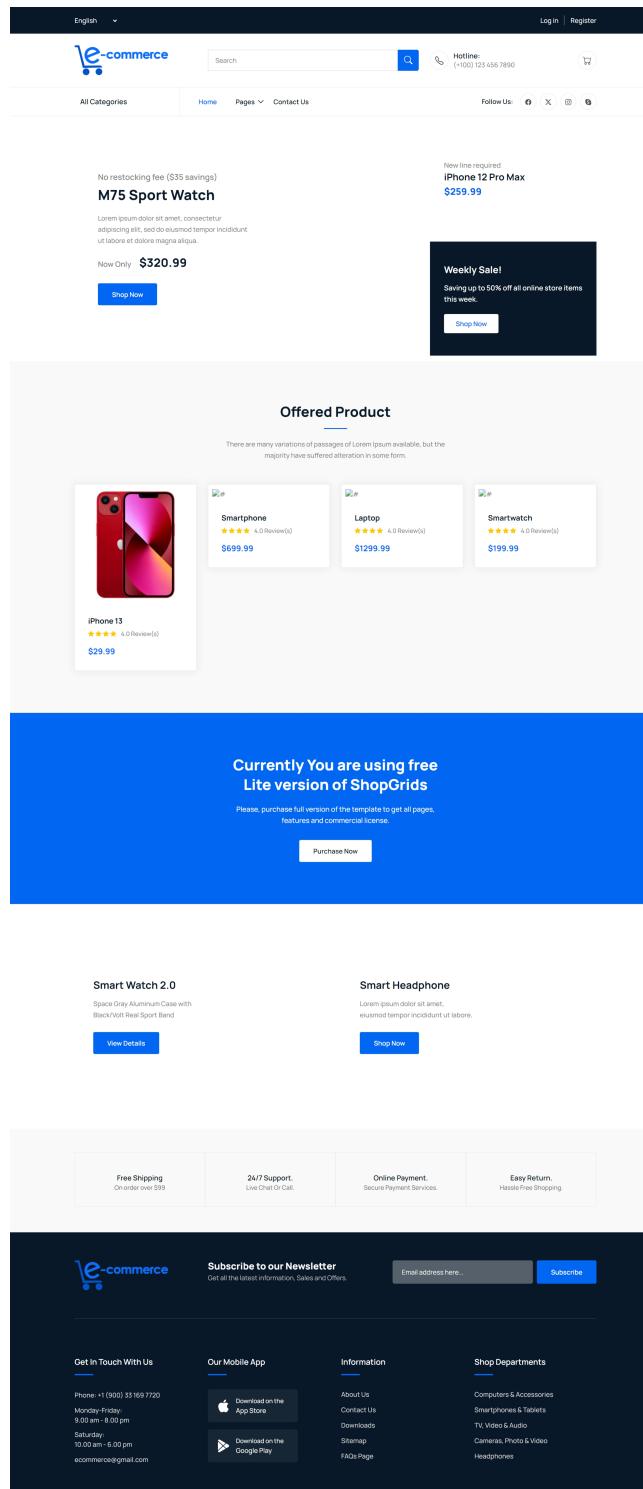


Figure 3: Homepage

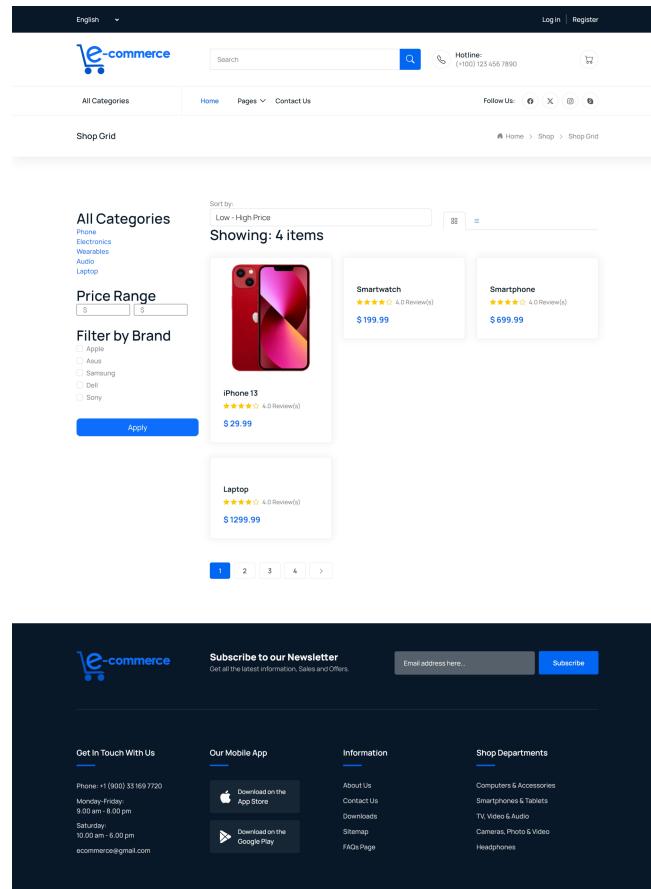


Figure 4: Search page

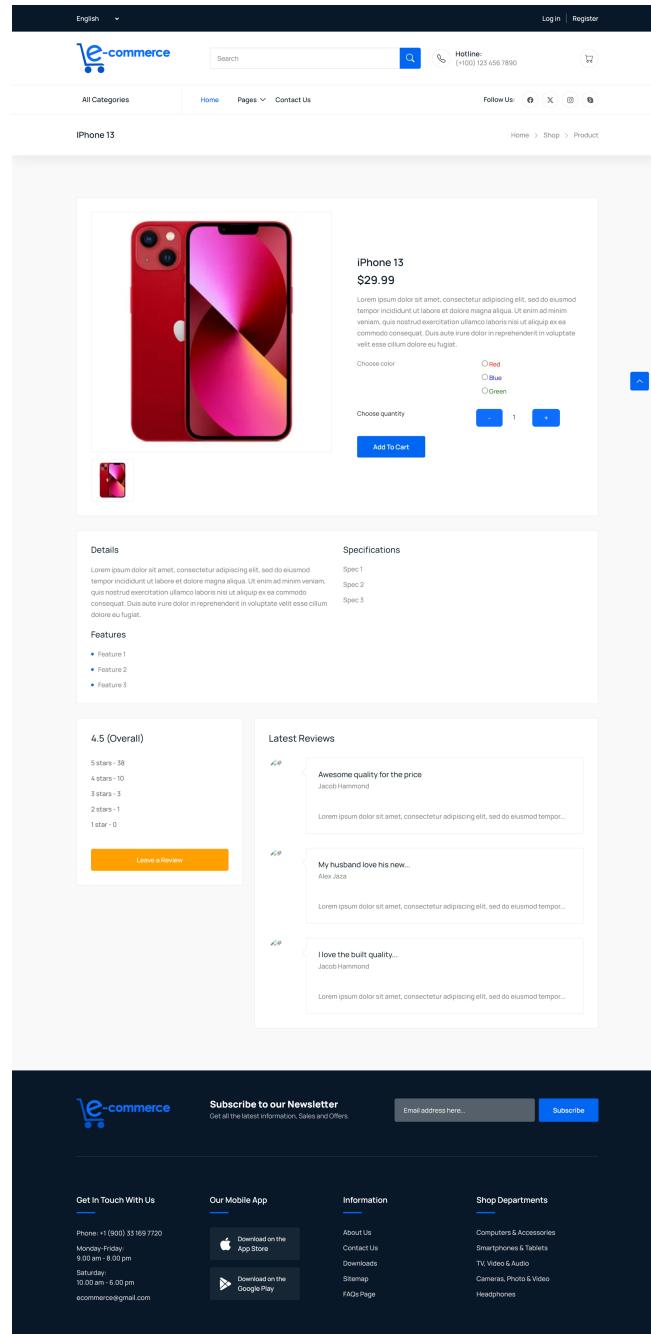


Figure 5: Product detail page

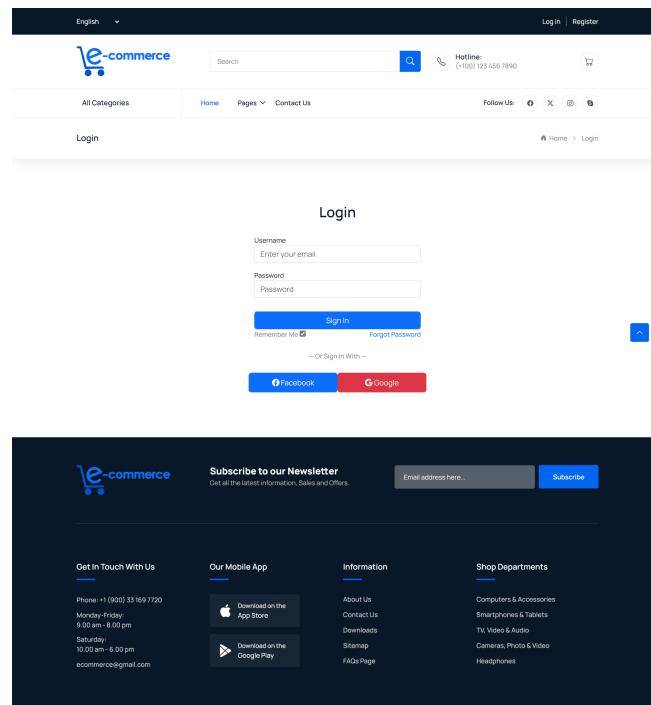


Figure 6: Login page

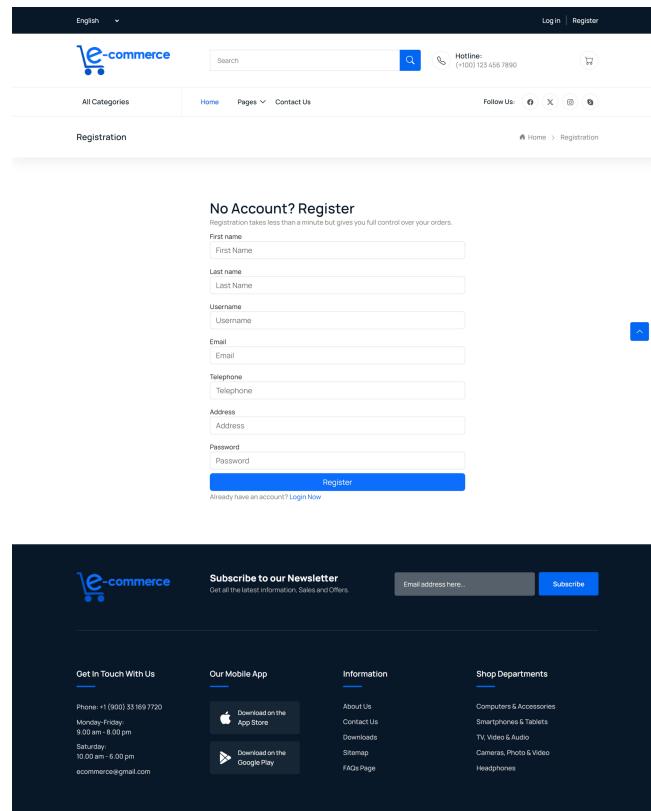


Figure 7: Register page

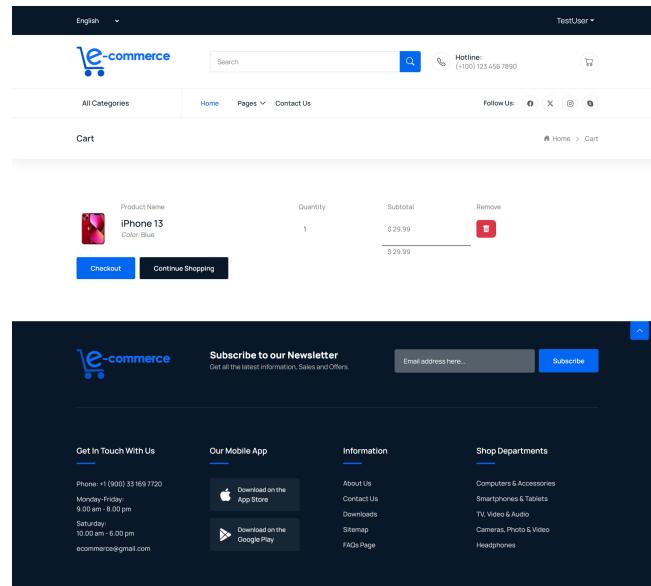


Figure 8: Cart page

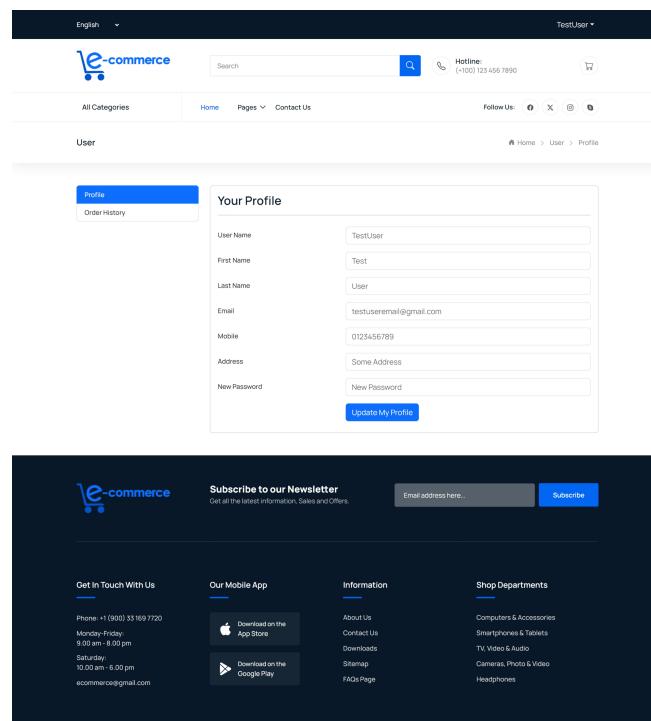


Figure 9: Profile page

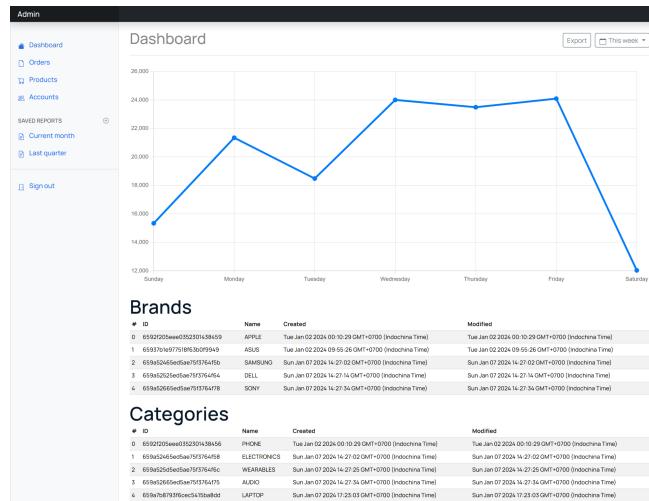


Figure 10: Admin dashboard

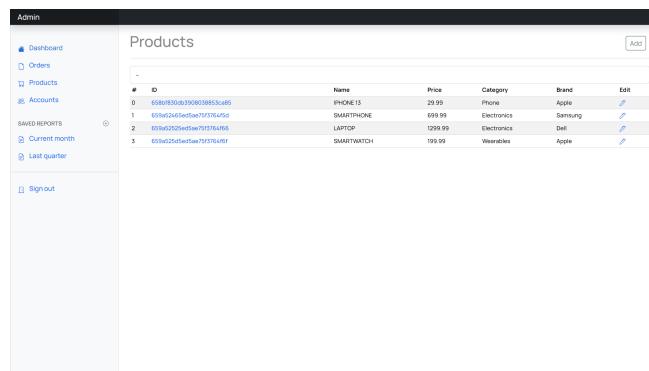


Figure 11: List of products

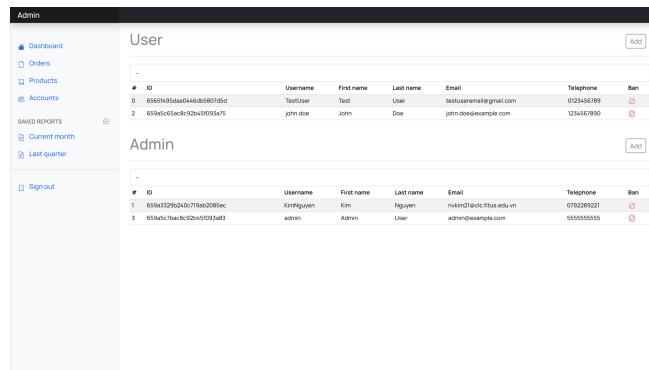


Figure 12: List of accounts

The screenshot shows the 'Update product' page for an iPhone 13. The left sidebar has 'Admin' at the top, followed by 'Dashboard', 'Orders', 'Products' (which is selected), 'Accounts', 'SAVED REPORTS' (with 'Current month' and 'Last quarter' options), and 'Signout'. The main area has a title 'iPhone 13' and a text area with placeholder text: 'Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat.' Below this are sections for 'Specifications (comma-separated)' containing 'Spec 1.Spec 2.Spec 3', 'Features (comma-separated)' containing 'Feature 1.Feature 2.Feature 3', 'Price' (29.99), 'Category' (phone), 'Brand' (Apple), and 'Quantity' (100). There is also a 'Images' section with a thumbnail of an iPhone and a file upload field. At the bottom are 'Update Product' and 'Delete' buttons.

Figure 13: Update product page

The screenshot shows the 'New Product' page. The left sidebar is identical to Figure 13. The main area has a title 'New Product' and a text area with placeholder text: 'Select multiple images using the Shift or Ctrl key.'. Below this are sections for 'Specifications (comma-separated)', 'Features (comma-separated)', 'Price', 'Category', 'Brand', and 'Quantity'. There is also a 'Images' section with a file upload field. At the bottom are 'Creates Product' and 'Delete' buttons.

Figure 14: Add product page

5 How to set up environment

- Step 1: install NodeJS
- Step 2: open terminal and locate to the project folder
- Step 3: run "npm install" to install all dependencies with package.json
- Step 4: run "nodemon index.js" from the terminal to start the system

6 How to set up database with MongoDBCompass

- Step 1: install MongoDBCompass
- Step 2: open MongoDBCompass and add new connection

- Step 3: change name with "Ecommerce" and change the database URL in the .env file for the connection
- Step 4: click "Save & Connect" and run the server

7 How to migrate data

- Step 1: Set up connection with database in the index.js
- Step 2: Locate the project folder in the terminal
- Step 3: Run the following codes in the terminal
 - npm migrate-mongo create 001-initial-setup
 - npm migrate-mongo create 002-insert-data
 - npm migrate-mongo up