TERM	Definition
Users	Web page administration & E-commerce client
Guest	The user who hasn't been registered in the app yet.
Customer	The user who is registered into the app
Admin	The user who is defined as Admin. Admin can verify and manage product info and visualize user info.

CLIENT	Encora
USER	Web page administration & E-commerce client
FUNCTIONAL REQUIREMENTS	**Req 1:** The website must have a product listing each product must have a name and price in the product listing. **Req 1.1:** The website product listing must have a filter function by a football team, price and size. **Req 1.2:** The website product listing must have a sorting function by price. **Req 1.3:** The website product listing must have a pagination feature so as not to clutter the screen with endless products. You must be able to move from page to page and have an option to choose which specific page to move to. **Req 2:** The website must have a shopping cart to add, remove, and update items. It also has quantity adjustment and a visual of the price. **Req 2.1:** The user can add products to his shopping cart. **Req 2.2:** The user can remove products from his shopping cart **Req 2.3:** The user can update the quantity of each product in his shopping cart.

	Req 3: The website must be able to add products by the administrator. The product details must include name, description, price, quantity, and category. **Req 3.2:** The website must be able to remove products by the administrator. **Req 3.3:** The website must be able to edit products by the administrator. **Req 4:** The website must have a multi-step checkout process that includes shipping address, payment details, and order summary. **Req 5:** The website must have a SQL database to store product information, user data, and order details. **Req 6:** The website must handle processing orders, inventory management, order status tracking, and confirmation emails.
PROBLEM CONTEXT	The company has a client who wants to start his E-commerce empire in soccer jersey sales and needs your team to mobilize a site that meets all his needs for inventory management, purchasing, payments, and full deployment.
NO FUNCTIONAL REQUIREMENTS	**Req NF:** the website must be visually appealing and comply with every UX design standard. **Req NF:** the website must be fully responsive and provide a seamless experience across various devices and screen sizes. **Req NF:** the website's frontend side must be implemented using React.JS **Req NF:** the website's backend side must be implemented using JavaScript. **Req NF:** the website must have a relational database that runs efficiently. **Req NF:** API documentation must be written and clearly explain how front-end devs and external clients interact with the back end. **Req NF:** The website must be implemented taking into account that it must be expandable and that future functionalities can be easily implemented

	Req NF: The website must have authentication allowing users to create accounts, log in, and securely manage their profiles. **Req NF:** a user guide that contains documentation on how to use the website and its different functionalities. **Req NF:** The website's implementation must have thoroughly commented code and exhaustive documentation to help other developers understand it. **Req NF:** The website must implement security practices like input validation, encryption, and protection against common web vulnerabilities.

User stories

Req 1: The website must have a product listing; each product must have a name and price in the product listing.

Description:

As an E-commerce user

I want to visualize the product listing

To check what products the store has and their prices

Acceptance Criteria:

Scenario 1: Product Listing Visualization

Given I joined the web page via the URL

And I am a guest or registered customer

When I click on the product listing

Then I can visualize all available products listed with their name and prices

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Req 1.1: The website product listing must have a filter function by price, and category.

Description:

As an E-commerce user

I want to be able to filter products by price, category and size

To find products at my convenience

Acceptance Criteria:

Scenario 1: Filter products by price

Given I am on a product listing

When Input values into the min price and max price and click filter

Then the products displayed will be filtered by said price

Scenario 2: Filter products by category

Given I am on a product listing

When click a category from the list to the left of the product list

Then the products displayed will be filtered by said category

Scenario 3: Filter products by size

Given I am on a product listing

When click sizes and click the specific size

Then the products displayed will be filtered by said size

Req 1.2: The website product listing must have a sorting function by price and alphabetical order.

Description:

As an E-commerce user

I want to visualize the product listing sorted by price

To find products at my convenience

Acceptance Criteria:

Scenario 1: Sort by price low to high

Given I entered the page as a guest or client

And I am on a product listing

When you click the sort button by price

Then it sorts all products by price from low to high

Scenario 2: Sort by price high to low

Given I entered the page as a guest or client

And I am on a product listing

And I already clicked sort by price once

When click the sort button by price again

Then it sorts all products by price from high to low

Req 1.3: The website product listing must have a pagination feature not to clutter the screen with endless products. You must be able to move from page to page and have an option to choose which specific page to move to.

Description:

As an E-commerce user

I want to be able to visualize a limited amount of products at a time and switch from page to page

To find products at my convenience

Acceptance Criteria:

Scenario 1: Simple Pagination

Given I am in a product listing

When click the page 2 button

Then I visualize the next set of products

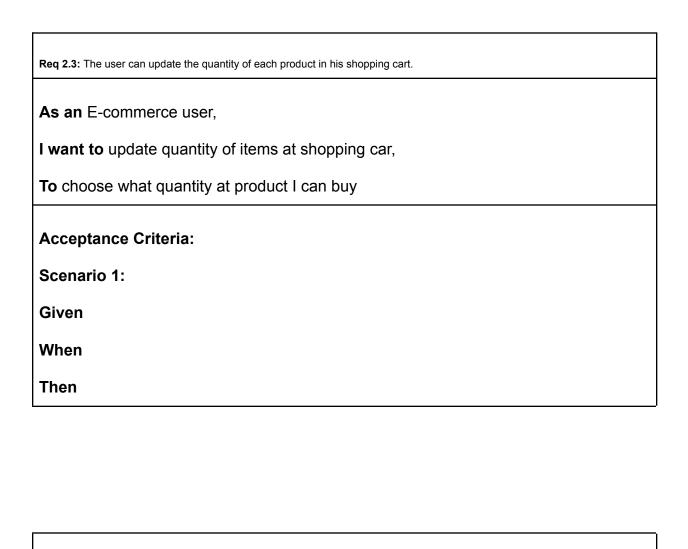**Scenario 2: Specific Pagination**

Given I am in a product listing

When click the page … button

And input the number of the page I want and enter

Then I visualize the next set of products on that specific page

Req 2.1: The user can add products to his shopping cart.

Description:

As an E-commerce user,

I want to add the items at shopping car that I choose to buy or save to buy later,

To have freedoom about my chooses

Acceptance Criteria:

Scenario 1: Visualize a product

Given I chose a specific product and I'm visualizing it,

when I add to cart

Then The product is then added to the shopping cart for viewing at my convenience

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Req 2.2: The user can remove products from his shopping cart

Description:

As an E-commerce user,

I want to remove the items at shopping car,

To think better what product I can buy

Acceptance Criteria:

Scenario 1:

Given

When

Then

Req 2.3: The user can update the quantity of each product in his shopping cart.

As an E-commerce user,

I want to update quantity of items at shopping car,

To choose what quantity at product I can buy

Acceptance Criteria:

Scenario 1:

Given

When

Then

Req 3: The website must be able to add products by the administrator. The product details must include name, description, price, quantity, and category.

Description:

As an Administrator

I want to manage the product listings on the e-commerce website

so that the integrity and security of the product information are maintained.

Acceptance Criteria:

Scenario 1: Product Listing

Given
The administrator is logged into the admin panel of the website.

And
The administrator is on the "Add New Product" page.

When
The administrator enters the product details (name, description, price, quantity, and category) and clicks on the "Save" button.

Then
The product should be added to the database.

And
The product should be visible in the product listing on the website for clients.

And
The product details should be accurately displayed on the product page.

Req 4: The website must have a multi-step checkout process that includes shipping address, payment details, and order summary.

Description:

As a customer,

I want to complete my purchase through a multi-step checkout process that includes entering my shipping address, payment details, and reviewing the order summary

so that I can ensure all my information is correct and securely complete my order.

Acceptance Criteria:

1.1 Shipping Address Step:

Given that I am on the checkout page,

When I proceed to the shipping address step,

Then I should see a form to enter my shipping information

And the form should validate the required fields before allowing me to proceed to the next step.

1.2 Payment Details Step:

Given that I have successfully entered my shipping address

When I proceed to the payment details step,

Then I should see a form to enter my payment information:

And the form should validate the required fields and ensure the payment details are correct before allowing me to proceed to the next step.

1.3 Order Summary Step:

Given that I have successfully entered my payment details,

When I proceed to the order summary step,

Then I should see a summary of my order, including: Shipping address, Payment, method (with partially masked card number), List of items with quantities and prices, Shipping costs, Total price

And I should be able to review and confirm my order or go back to edit the shipping address or payment details if needed.

1.4 Order Confirmation:

Given that I am on the order summary step,

When I confirm my orde**r,**

Then my order should be processed, and I should see an order confirmation page with**:** the order number, estimated delivery date, contact information for customer service

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Req 5: The website must have a SQL database to store product information, user data, and order details.

Description:

As a system administrator

I want the website to have an SQL database

So that it can store product information, user data, and order details**.**

Acceptance Criteria:

Scenario 1: Product Listing

Given the SQL database is configured and operational.

And the product table in the database is correctly structured with fields for name, description, price, quantity, and category.

When a product is added through the admin panel.

Then the product should be stored in the product table in the database.

And the product should be retrievable and visible on the product listing page of the website.

Req 6: The website must handle processing orders, inventory management, order status tracking, and confirmation emails.

Description:

As a customer**,**

I want to place an order on the website and receive timely updates about my order status

so that I can be informed about my purchase and its delivery progress.

Acceptance Criteria:

Scenario 1: Comprehensive Order Management System

1.1. Order Processing:

Given that I have confirmed my order,

When the order is submitted**,**

Then the system should process the payment**,**

And create an order record with a unique order number, items purchased, shipping details, and payment confirmation**.**

1.2. Inventory Management:

Given that, an order has been placed,

When the order is confirmed,

Then the inventory system should deduct the purchased quantities from the available stock**,**

And if an item is out of stock, it should notify me and provide an option to backorder or cancel the item.

1.3. Order Status Tracking:

Given that I have placed an order,

When I log into my account and navigate to the order history page,

Then I should see a list of my orders with their current statuses (e.g., Processing, Shipped, Delivered),

And for each order, I should be able to see detailed information, including: order number, order date, shipping address, payment method, items purchased, current status, estimated delivery date (if shipped), tracking number (if available)

1.4. Confirmation Emails:

Given that I have placed an order**,**

When the order is confirmed**,**

Then I should receive an order confirmation email with: the order number, order summary, shipping details, payment details (with a partially masked card number), contact information for customer service

And when the order status changes (e.g., from Processing to Shipped),

Then I should receive an email notification with the updated status and relevant information, such as the tracking number for shipped orders.