

ECOMMERCE - L3

IIHT

Time To Complete: 2 hr

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1 PROJECT ABSTRACT

In the rapidly expanding world of online shopping, the demand for efficient and user-friendly e-commerce platforms has significantly increased. With the vision of creating a cutting-edge and accessible E-commerce Platform, the CEO of a forward-thinking retail company, Mr. X, assigns a team of developers to develop this application using React.

This application aims to provide a seamless and engaging platform for customers to browse, purchase, and manage their shopping experiences online

Your task is to develop a comprehensive digital solution, where users can browse through a wide range of products, view detailed product descriptions, and add desired items to their cart, place an order and easily manage their shopping experience. The platform also includes features for users to view past orders and review the bought products with ease, ensuring a comprehensive and enjoyable online shopping experience.

2 PROBLEM STATEMENT

The "**E-commerce App**" is a Single Page Application (SPA) designed to enhance the online shopping experience for customers. This system allows users to browse and search for products, view detailed product descriptions, and securely add items to their cart for purchase. Additionally, the system provides an interface for users to view their past orders and review products they've purchased, ensuring a seamless and engaging shopping experience.

3 PROPOSED E-COMMERCE APPLICATION WIREFRAME

UI needs improvisation and modification as per given use case and to make test cases passed.

3.1 WELCOME PAGE



E-commerce Platform

- [Home](#)
- [Orders](#)
- [Login](#)

Welcome to the E-commerce Platform

All Categories ▼

Laptop

A high-performance laptop

[View Details](#)

Smartphone

A latest-gen smartphone

[View Details](#)

Running Shoes

Comfortable running shoes

Already added some products with their details

Filter Products based on Category



E-commerce Platform

- [Home](#)
- [Orders](#)
- [Login](#)

Welcome to the E-commerce Platform

Accessories ▾

Wristwatch

Stylish wristwatch

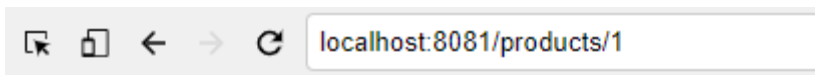
[View Details](#)

Backpack

Durable backpack

[View Details](#)

View Product Details



E-commerce Platform

- [Home](#)
- [Orders](#)
- [Login](#)

Laptop

A high-performance laptop

Price: 1200

Category: Electronics

Reviews

Add to Cart

*** Login Page***

🔍 📄 ⬅ ➡ ↻ localhost:8081/login

E-commerce Platform

- [Home](#)
- [Orders](#)
- [Login](#)

Login

Email:

Password:

*** Already added some users, kindly use their credentials in db.json file***

3.2 USER LOGIN

*** User Home Page***



E-commerce Platform

- [Home](#)
- [Orders](#)
- [Cart](#)
- [Logout](#)

Welcome to the E-commerce Platform

All Categories ▾

Laptop

A high-performance laptop

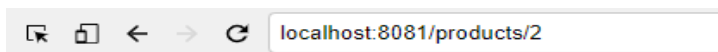
[View Details](#)

Smartphone

A latest-gen smartphone

[View Details](#)

Product View Details



E-commerce Platform

- [Home](#)
- [Orders](#)
- [Cart](#)
- [Logout](#)

Smartphone

A latest-gen smartphone

Price: 800

Category: Electronics

Reviews

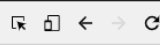
Rating: 4 / 5

Good value for money.

Reviewed by User 2 on 2023-07-07

[Add to Cart](#)

Add to Cart



E-commerce Platform

- [Home](#)
- [Orders](#)
- [Cart](#)
- Logout

Smartphone

A latest-gen smartphone

Price: 800

Category: Electronics


Reviews

Rating: 4 / 5


Good value for money.

Reviewed by User 2 on 2023-07-07

Add to Cart

 Product added to cart successfully!

Filter Categories



E-commerce Platform

- [Home](#)
- [Orders](#)
- [Cart](#)
- Logout

Welcome to the E-commerce Platform


▼

Running Shoes

Comfortable running shoes

[View Details](#)

Your Cart

localhost:8081/cart

E-commerce Platform

- [Home](#)
- [Orders](#)
- [Cart](#)
- Logout

Your Cart

- **Wristwatch**

Stylish wristwatch

Price: 250

Quantity: 1


- **Smartphone**

A latest-gen smartphone

Price: 800

Quantity: 1

Remove Added Product

localhost:8081/cart

E-commerce Platform

- [Home](#)
- [Orders](#)
- [Cart](#)
-

Your Cart

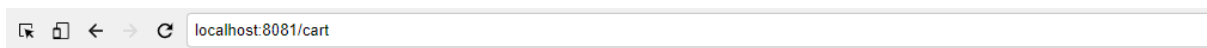
- **Smartphone**

A latest-gen smartphone

Price: 800

Quantity: 1

Place an Order



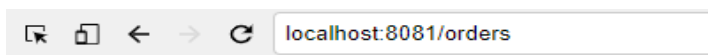
E-commerce Platform

- [Home](#)
- [Orders](#)
- [Cart](#)
- [Logout](#)

Your Cart

Order placed successfully!

Your Orders



E-commerce Platform

- [Home](#)
- [Orders](#)
- [Cart](#)
- [Logout](#)

Your Orders

Order ID: 1

User ID: 1

Product ID: 1

Quantity: 1

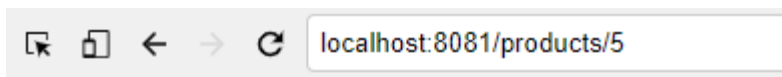
Total Price: 1200

Status: Processing

Order Date: 2024-07-09

Shipping Date: Not shipped yet

Add Review



E-commerce Platform

- [Home](#)
- [Orders](#)
- [Cart](#)
-

Backpack

Durable backpack

Price: 75

Category: Accessories

Reviews



E-commerce Platform

- [Home](#)
- [Orders](#)
- [Cart](#)
-

Backpack

Durable backpack

Price: 75

Category: Accessories

Reviews

Rating:

Comment:

Product ID:

User ID:

E-commerce Platform

- [Home](#)
- [Orders](#)
- [Cart](#)
- [Logout](#)

Backpack

Durable backpack

Price: 75

Category: Accessories

Reviews

Rating: 3 / 5

good for the price

Reviewed by User 1 on 2024-09-24

[Add to Cart](#)

Review submitted successfully!

Users can review only when the product is delivered

4 BUSINESS-REQUIREMENT:

As an application developer, develop the E-Commerce Application (Single Page App) with below guidelines:

User Story #	User Story Name	User Story
US_01	Welcome Page	<p>As a user I should be able to visit the welcome page as default page.</p> <p>Acceptance criteria:</p> <ol style="list-style-type: none">There should be 3 routes/links:<ul style="list-style-type: none">Home: When clicking this link, it should display the title "E-commerce Platform" and list the available products.Orders: When clicking this link, it should navigate to the login page.Login: When clicking this link, it should navigate to the login page.The Welcome Page should display the title "Welcome to the E-commerce Platform".There should be a dropdown menu labeled "All Categories" to filter products by category.A list of available products should be displayed, where each product includes:<ul style="list-style-type: none">Product Name: The name of the product (e.g., Laptop).Product Description: A short description of the product (e.g., A high-performance laptop).A View Details link for each product, which likely navigates to a detailed view of that product.The above mentioned 3 routes/links should be throughout all the respective pages. <p>** Kindly refer to the screenshots for any clarifications. **</p>

	View Details	<p>View Details:</p> <p>Acceptance criteria:</p> <ol style="list-style-type: none"> 1. When clicking the View Details link for a product (e.g., Laptop), it should display the product details page with the title "E-commerce Platform". 2. The product details page should include: <ul style="list-style-type: none"> ● Product Name: The name of the product (e.g., Laptop). ● Product Description: A detailed description of the product (e.g., A high-performance laptop). ● Price: The price of the product (e.g., 1200). ● Category: The category to which the product belongs (e.g., Electronics). 3. The page should also include a title as "Reviews" for Review section, which should display: <ul style="list-style-type: none"> ● Rating: The product's rating (e.g., 5/5). ● Review Content: The content of the review (e.g., Great laptop! Highly recommend). ● Reviewer Information: The name of the reviewer and the date of the review (e.g., Reviewed by User 1 on 2023-07-06). 4. There should be an Add to Cart button, when clicking it should navigate to the login page. <p>** Kindly refer to the screenshots for any clarifications. **</p>
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	Login Page	<p>As a user, I should be able to access the login page to log into the system.</p> <p>Acceptance criteria:</p> <ol style="list-style-type: none"> 1. Users can access the login page by clicking the Login link in the menu. 2. The login page should have the title as "Login". 3. The login page should have fields for entering an email and password. 4. The system should validate the user credentials upon submission and provide appropriate feedback: <ul style="list-style-type: none"> • If the email address is invalid (e.g., missing '@'), it should display "Please include an '@". • If the credentials are wrong, it should display "Invalid email or password". • Both fields are mandatory. If either field is not filled, an error message should be displayed indicating that the fields are required. 5. Fake REST APIs for logging in as a user are provided and should be used, as specified in the <code>db.json</code> file. 6. The login page should have a Login button to submit the login credentials. 7. After successful login, the user should be redirected to their respective user's home page. <p>** Kindly refer to the screenshots for any clarifications. **</p>
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		<p>2. The product details page should include:</p> <ul style="list-style-type: none"> ● Product Name: The name of the product (e.g., Laptop). ● Product Description: A detailed description of the product (e.g., A high-performance laptop). ● Price: The price of the product (e.g., 1200). ● Category: The category to which the product belongs (e.g., Electronics). <p>3. The page should also include a title as “Reviews” for Review section, which should display:</p> <ul style="list-style-type: none"> ● Rating: The product's rating (e.g., 5/5). ● Review Content: The content of the review (e.g., Great laptop! Highly recommend). ● Reviewer Information: The name of the reviewer and the date of the review (e.g., Reviewed by User 1 on 2023-07-06). <p>4. There should be an Add to Cart button. When clicked:</p> <ul style="list-style-type: none"> ● The product should be added to the cart. ● A notification/alert should appear at the page, displaying the message "Product added to cart successfully". <p>The Home, Orders, Cart, and Logout links should be present throughout all the respective pages in the application until logging out.</p> <p>** Kindly refer to the screenshots for any clarifications. **</p>
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Orders Page

As a user, I should be able to view my(only logged in user) order details in the E-Commerce Platform.

Acceptance criteria:

1. The Orders page should display the title "Your Orders".
2. For each order, the following details should be displayed:
 - **Order ID:** The unique identifier for the order (e.g., Order ID: 1).
 - **User ID:** The unique identifier for the user who placed the order (e.g., User ID: 1).
 - **Product ID:** The unique identifier for the product ordered (e.g., Product ID: 1).
 - **Quantity:** The quantity of the product ordered (e.g., Quantity: 1).
 - **Total Price:** The total price of the order (e.g., Total Price: 1200).
 - **Status:** The current status of the order (e.g., Status: Processing).
 - **Order Date:** The date when the order was placed (e.g., Order Date: 2024-07-09).
 - **Shipping Date:** The shipping status or date (e.g., Shipping Date: Not shipped yet).

The **Home**, **Orders**, **Cart**, and **Logout** links should be present throughout all the respective pages in the application until logging out.

**** Kindly refer to the screenshots for any clarifications. ****

As a user, I should be able to view and manage the items in my shopping cart(of only logged-in user) on the E-Commerce Platform.

Acceptance criteria:

1. The Cart page should display the title "Your Cart".
2. For each item in the cart, the following details should be displayed:
 - **Product Name:** The name of the product (e.g., Wristwatch, Laptop).
 - **Product Description:** A brief description of the product (e.g., Stylish wrist watch, A high-performance laptop).
 - **Price:** The price of the product (e.g., Price: 250, Price: 1200).
 - **Quantity:** The quantity of the product in the cart (e.g., Quantity: 2 for Wristwatch, Quantity: 1 for Laptop).
 - **Quantity Control Buttons:**
 1. + button to increase the quantity of the product.
 2. - button to decrease the quantity of the product.
 3. **Remove** button to remove the product from the cart.
3. There should be a **Place Order** button at the bottom of the cart.

When the **Place Order** button is clicked:

 - The cart should be cleared of all items.
 - A notification/alert should appear at the page, displaying the message "Order placed successfully".
4. After placing the order, the cart page should display an empty cart message or simply show the title "Your Cart" with no items listed.

The **Home**, **Orders**, **Cart**, and **Logout** links should be present throughout all the respective pages in the application until logging out.

**** Kindly refer to the screenshots for any clarifications. ****

	Add a Review	<p>Add Review Button:</p> <p>As a user after the product is delivered, I should be able to add a review for that product.</p> <p>Acceptance criteria:</p> <ol style="list-style-type: none"> 1. View Product Details: When a user clicks on the "View Details" link for a product, the product details should be displayed. This includes: <ul style="list-style-type: none"> • Product name. • Product description. • Price. • Category. 2. Add Review Button: The page should display an "Add Review" button. However, the user can only leave a review if the product has been delivered. 3. Submit a Review: Once eligible, the user can click the "Add Review" button, which should display the review form with: <ul style="list-style-type: none"> • A dropdown or rating input field for the product rating (e.g., out of 5 stars). • A text input field for the review comment. • Product ID and User ID (auto-filled). • A submit button. 4. Review Submission: <ul style="list-style-type: none"> • If the review is successful, a message/alert like "Review submitted successfully!" should be displayed (as shown in the notification/alert at the bottom of the screenshots). • The new review should appear under the "Reviews" section, showing: <ol style="list-style-type: none"> 1. Rating (e.g., Rating: 3/ 5). 2. Review comment (e.g., Good product to buy). 3. Reviewed by <user details> on <Date of the review> (e.g., Reviewed by User 1 on 2024-09-24).
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		<p>5. Add to Cart: There should also be an "Add to Cart" button in the end, which allows the user to add the product to their cart again from the details page for ease of convenience.</p> <p>The Home, Orders, Cart, and Logout links should be present throughout all the respective pages in the application until logging out.</p> <p>** Kindly refer to the screenshots for any clarifications. **</p> <p>NOTE: The user login credentials and other relevant data are available in the db . j son file, and you can edit them as needed.</p>
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5 VALIDATIONS

- All required fields must be fulfilled with valid data.
- When logging into the system all the fields must be filled.

6 CONSTRAINTS

- You should be able to press the "TAB" key and "SHIFT + TAB" to navigate from top field to bottom field and vice-versa.
- The "Add Review" button should be available only for products that the user has purchased and have been delivered.

7 MANDATORY ASSESSMENT GUIDELINES

1. All actions like build, compile, running application, running test cases will be through Command Terminal.
2. To open the command terminal the test takers, need to go to Application menu (Three horizontal lines at left top) -> Terminal ->New Terminal.
3. This editor Auto Saves the code.
4. If you want to exit(logout) and continue the coding later anytime (using Save & Exit option on Assessment Landing Page) then you need to use CTRL+Shift+B-command compulsorily on code IDE. This will push or save the updated contents in the internal git/repository. Else the code will not be available in the next login.
5. These are time bound assessments the timer would stop if you logout and while logging in back using the same credentials the timer would resume from the same time it was stopped from the previous logout.
6. To test any Restful application, the last option on the left panel of IDE, you can find ThunderClient, which is the lightweight equivalent of POSTMAN.
7. This is a web-based application, to run the application on a browser, use the internal browser in the workspace. Click on the second last option on the left panel of IDE, you can find Browser Preview, where you can launch the application.

Note: The application will not run in the local browser

8. You can follow series of command to setup React environment once you are in your project-name folder:
 - a. `npm install` -> Will install all dependencies -> takes 10 to 15 min
 - b. `npm run start` -> To compile and deploy the project in browser. You can press <Ctrl> key while clicking on localhost:8080/8081 to open project in browser -> takes 2 to 3 min
 - c. `npm run json-start` -> As we are using a json server to mimic our db.json file as a database. So, this command is useful to start a json server.
 - a. `npm run jest` -> to run all test cases and see the summary. It takes 5 to 6 min to run.
 - d. `npm run test` -> to run all test cases. **It is mandatory to run this command before submission of workspace** -> takes 5 to 6 min
9. You may also run “`npm run jest`” while developing the solution to re-factor the code to pass the test-cases.
10. Once you are done with development and ready with submission, you may navigate to the previous tab and submit the workspace. It is mandatory to click on **“Submit Assessment”** after you are done with code.
11. You need to use CTRL+Shift+B - command compulsorily on code IDE, before final submission as well. This will push or save the updated contents in the internal git/repository, and will be used to evaluate the code quality.