

Nxt Assess - Project Overview

Title Slide

E-Commerce Web Application

Built with React.js

Project Overview

A comprehensive online shopping platform with product browsing, cart management, and secure checkout built using modern web technologies.

Key Features

1. User Authentication (JWT-based login, protected routes)
2. Product Catalog (filters, search, sort)
3. Shopping Cart (quantity adjustment, cart summary)
4. Checkout Process (payment options, order confirmation)

Technical Implementation

Frontend: React.js, React Router, Context API

Styling: CSS Modules

UI Libraries: React Icons, React Popup

State Management: Context API (for cart)

Authentication: JWT (via cookies)

Component Structure

- Header (navigation, cart badge)
- Product Listing (filterable grid)
- Product Details (info + add-to-cart)
- Cart (selected items, summary)
- Payment (checkout steps)

Key Technical Challenges

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1. Cart State Management with Context API
2. JWT Authentication and Route Protection
3. Payment Popup with Validation and Feedback

User Flow

1. Login or redirect to login
2. Browse products with filters
3. View details, add to cart
4. Review cart, update items
5. Checkout and select payment
6. Confirm order and see success message

Future Enhancements

- Integrate real payment gateways
- Add user profile and order history
- Implement product reviews
- Improve mobile responsiveness

Learning Outcomes

- Mastered React Context for state management
- Built secure authentication flows
- Designed responsive and modular UI
- Developed full user shopping journey

Conclusion

This project provides a strong foundation for a scalable e-commerce platform showcasing modern React practices.