

**Oxford University B.Sc. Computer Science**  
**Professor: Robert Mickey Jr.**

## **Assignment: Build an eCommerce Store**

### **Objective:**

Create a full-stack eCommerce web app where users can browse products, add them to a cart, and make a purchase. Include user authentication, product management, and payment integration.

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### **Technologies:**

- **Frontend:** HTML, CSS, JavaScript (or React/Vue)
  - **Backend:** Node.js with Express.js, MongoDB
  - **Authentication:** JWT for login and registration
  - **Payment:** Use Stripe or PayPal (sandbox mode)
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### **Functional Requirements:**

1. **User Authentication:**
    - Users can sign up, log in, and manage their profile.
  2. **Product Management:**
    - Display products with name, price, and image.
    - Admins can add, update, and delete products.
  3. **Shopping Cart:**
    - Users can add products to the cart, view cart, and remove items.
  4. **Checkout:**
    - Users can complete a purchase with a mock payment system (Stripe/PayPal).
    - After payment, show an order confirmation.
  5. **Order Management:**
    - Users can view their order history.
    - Admins can view all orders and update order statuses.
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### **Optional Features:**

- Product search and filter.

- Reviews for products.
  - Send email confirmations after order placement.
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### **Submission:**

- Submit a GitHub link with a README explaining setup and features.
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### **Evaluation Criteria:**

- **Functionality:** Does everything work as expected?
- **Code Quality:** Is the code clean and organized?
- **User Experience:** Is the UI user-friendly and responsive?
- **Security:** Are passwords hashed and payments handled securely?