

Project Title: eCommerce Website - Academy Project

Intern Ship

1st part

Project Description

The eCommerce website will be a platform that allows users to browse, search, and purchase products. It will support user registration, product management, shopping cart functionality, and order processing. The primary goal is to demonstrate the typical functionality of an eCommerce application while focusing on usability, security, and data management.

Requirements and Marking Scheme

User Registration and Authentication - (15 marks)

(20 marks)



1. Users can register, log in, and log out. Implement account verification via email (optional).
2. Role-based access control for users (admin and customer).
3. Admin dashboard for product management.
4. Product Catalog and Management -

(5 marks)



1. Product Listing: Display available products with details (name, price, description, image).
2. Product Details Page: A dedicated page for each product with additional details and reviews.
3. Product Categories & Filtering: Support for category-based browsing and filtering by price, brand, etc.
4. Admin Features for Product Management: CRUD (Create, Read, Update, Delete) functionality for products.
5. Search Functionality -

(15 marks)



1. Implement a search feature allowing users to find products by name, category, or keywords.
2. Autocomplete suggestions while typing (optional).
3. Shopping Cart -

(15 marks)



1. Users can add, update, and remove items in the cart.
2. Cart should display item quantity, subtotal, and total price dynamically.
3. Option to save cart items between sessions (via cookies or local storage).
4. Checkout and Order Management -

(10 marks)



1. Checkout Process: Users can proceed to checkout, enter shipping and payment details.
2. Order Summary and Confirmation: Display a summary before confirming the order.
3. Order History: Users can view their past orders, order status (e.g., pending, shipped, delivered).
4. Admin panel for viewing and updating order statuses.
5. Payment Gateway Integration -

(5 marks)



1. Integrate a mock payment gateway for processing payments.
2. Simulate payment success or failure scenarios for testing.
3. User Profile Management -

(5 marks)



1. Users can view and edit their profile information, such as name, email, and address.
2. Allow users to change their password.
3. Product Reviews and Ratings -

(5 marks)



1. Customers can leave reviews and ratings for products they have purchased.
2. Average ratings displayed on the product page.
3. Security Measures -

(5 marks)



1. Secure user data through encryption (password hashing, SSL for sensitive data).
2. Implement CSRF protection for form submissions.
3. Validate and sanitize inputs to prevent SQL injection and XSS attacks.
4. Responsive Design -

(3 marks)



1. Ensure the site is mobile-friendly and displays well on different screen sizes.
2. Basic layout adjustments to support mobile, tablet, and desktop views.
3. Search Engine Optimization (SEO) -

(4 marks)



1. Optimize product pages with meta tags (title, description, keywords).
2. Friendly URLs for better indexing.
3. Analytics and Reporting -

(3 marks)



1. Basic tracking of user activities (e.g., most viewed products).
2. Admin dashboard for sales reports, customer insights, and order summaries.
3. Testing and Quality Assurance -

(5 marks)



1. Comprehensive testing for functionality, usability, and compatibility.
2. Bug tracking and resolution.
3. Extra Credit Options (Up to 5 additional marks)

(15 marks)



1. Wishlist: Allow users to save products to a wishlist.
2. Discounts/Coupons: Support for applying discounts or coupon codes at checkout.
3. Multi-language Support: Provide language options for users.
4. Social Sharing: Enable sharing of product links on social media platforms.
5. Marking Scheme Summary
6. Requirement Marks
7. User Registration and Authentication

1. Product Catalog and Management 20
2. Search Functionality 5
3. Shopping Cart 15
4. Checkout and Order Management 15
5. Payment Gateway Integration 10
6. User Profile Management 5
7. Product Reviews and Ratings 5
8. Security Measures 5
9. Responsive Design 5
10. Search Engine Optimization (SEO) 3
11. Analytics and Reporting 4
12. Testing and Quality Assurance 3

1. **Total 100**

2. **Extra Credit Options +5**