

## **PHASE 5**

### **Developing An Artisanal E-commerce Platform**

#### **Introduction:**

Developing an Artisanal E-commerce Platform aims to promote unique handmade products by providing a user-friendly online marketplace. The project objectives include fostering a community for artisans and enabling a seamless buying experience for customers. The platform will feature secure user registration and authentication, allowing users to create personalised accounts and safely access the platform. Implementation involves utilising robust e-commerce frameworks and secure authentication protocols to ensure a smooth and secure online shopping experience for users.

#### **Project Objectives:**

**The primary objectives of this project are:**

##### **Empowering Artisans:**

Provide a digital platform for artisans to showcase their handmade products, expanding their reach and customer base.

##### **Global Accessibility:**

Connect artisans with a global audience, breaking down geographical barriers.

##### **Secure E-commerce:**

Implement robust security measures for both artisans and customers, ensuring safe transactions.

##### **User Experience:**

Create an intuitive and visually appealing platform that enhances user engagement and satisfaction.

**Scope:**

The project scope encompasses the following key areas:

**Platform Design:**

Design the platform layout with sections for product categories, individual product pages, shopping cart, checkout, and payment

**Product Showcase:**

Develop a database to store product information, including images, descriptions, prices, and categories.

**User Authentication:**

Implement user registration and authentication features to enable artisans and customers to access the platform.

**Shopping Cart and Checkout:**

Design and develop the shopping cart functionality and a smooth checkout process.

**Payment Integration:**

Integrate secure payment gateways to facilitate transactions.

**User Experience:**

Focus on providing an intuitive and visually appealing user experience for both artisans and customers.

**Technical Overview:****The technical stack for this project includes:****Tech Stack:**

HTML, CSS, and JavaScript for creating a responsive and interactive user interface.

**Database:**

DB2 database from IBM for efficient storage of product information.

**Security:**

Implementation of industry-standard security protocols, including HTTPS, encryption, and user authentication.

**The platform will offer the following essential features:**

**Platform Layout:**

A well-organised layout with sections for product categories, individual product pages, shopping cart, checkout, and payment.

**Product Showcase:**

A database storing product information, including images, descriptions, prices, and categories.

**User Authentication:**

User registration and authentication features for artisans and customers.

**Shopping Cart and Checkout:**

Functionality for adding/removing items from the cart and a smooth, multi-step checkout process.

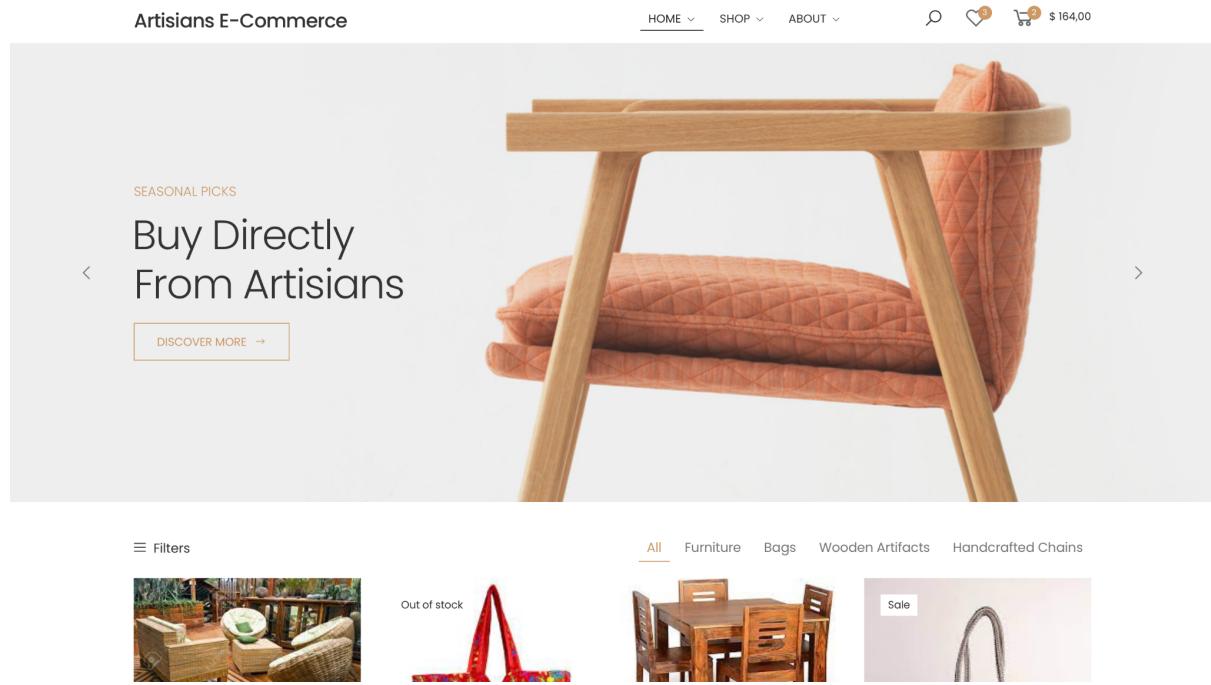
**Payment Integration:**

Integration of secure payment gateways for seamless transactions.

**User Experience:**

A focus on an intuitive and visually appealing user experience, including responsive design, user-friendly navigation, and features such as product reviews and wish lists.

## Main Page



## Visual Appeal

We incorporated high-resolution images of select artisanal products on the main page, creating a visually appealing display that entices users to explore further. Each image is carefully curated to highlight the intricate details and unique craftsmanship of the products, creating an immersive experience for visitors.

## Navigation

To ensure ease of use, we implemented a streamlined navigation system that allows users to explore different product categories effortlessly.

The main page features a user-friendly menu that directs visitors to specific product categories, enabling them to browse through a diverse range of handcrafted items with minimal effort.

≡ Filters



Flow Slim Armchair

Handcrafted Bag (Color: Red)  
\$446.00Block Side Table/Trolley  
\$229.00Handbag  
\$103.00 Was \$130.00

## Product Description

Home &gt; Products &gt; Default

&lt; Prev Next &gt;



### Handcrafted Bag (Color: Red)

★★★★★ (2 Reviews)

\$9.99

A Handcrafted Leather Bag with adequate space, High quality leather bag. (Color: Red)

Size: Qty:   

ADD TO CART

Add to Wishlist

Add to Compare

Category: Bags, Handmade, Red

Share:

## Product Showcase

On the product description page, we placed a prominent product showcase section, showcasing high-resolution images that capture the intricacies and unique characteristics of the artisanal products. These images offer users an in-depth visual representation, allowing them to appreciate the craftsmanship and quality of each item before making a purchase.

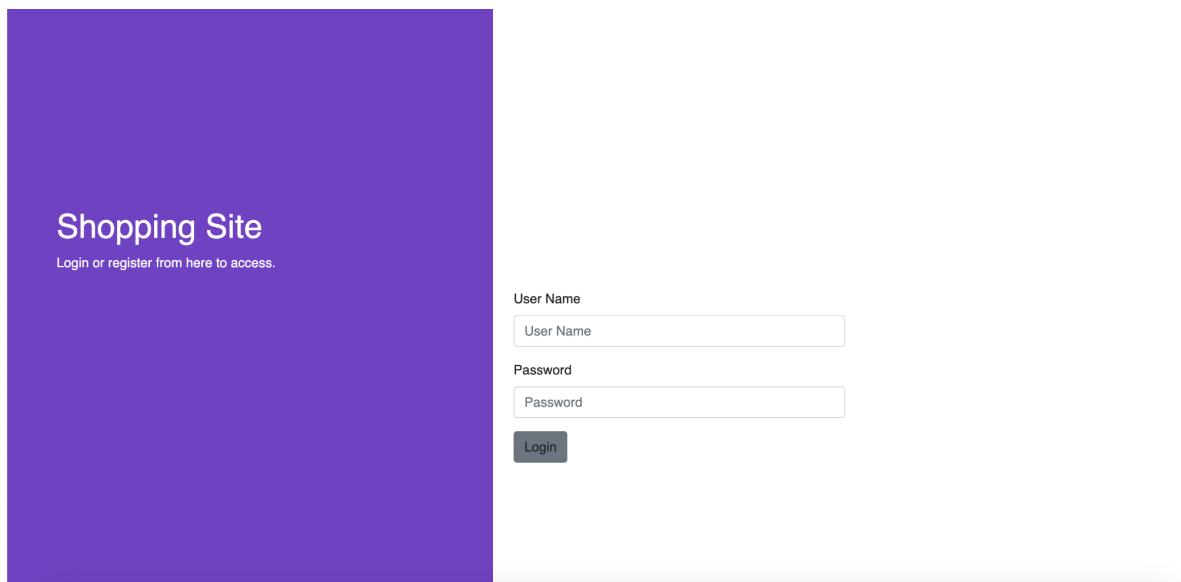
## Detailed Descriptions

To provide transparency and clarity, we included detailed descriptions of each product, outlining the materials used, dimensions, and any other pertinent information. This comprehensive approach enables users to understand the product's specifications and ensures they have a clear understanding of what to expect upon purchase.

## Implementation

### User Registration and Authentication

Securely store user data in a database, including username, email, and encrypted passwords. Develop user-friendly registration and login forms. Use JavaScript to interact with the backend API for user registration and authentication.

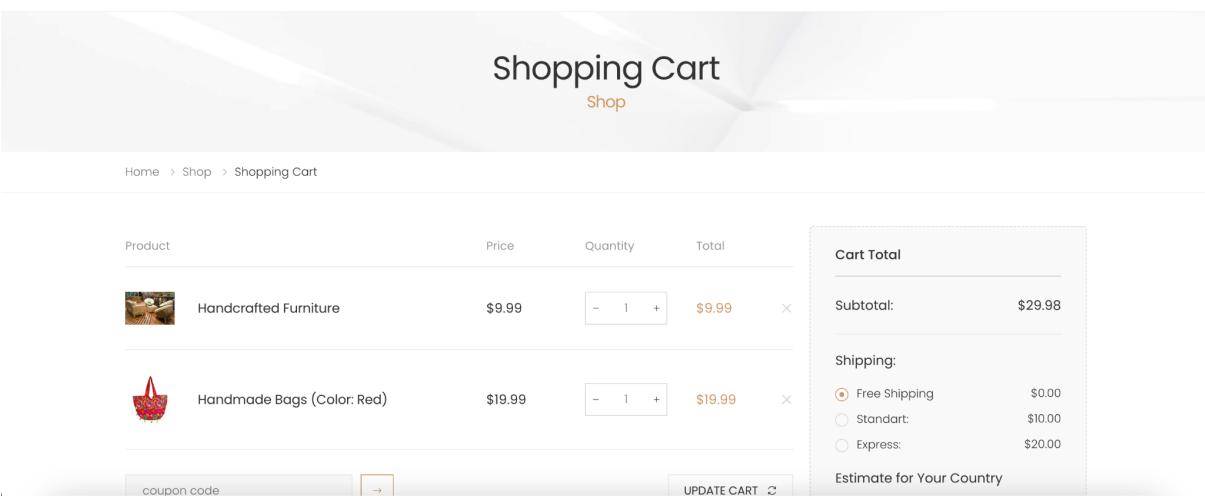


### Shopping Cart Functionality

Develop API endpoints for managing the shopping cart, allowing actions like adding items, updating quantities, and removing items.

Store cart data in the database, associating it with user accounts. Design a user-friendly shopping cart interface for adding and removing items.

Use JavaScript to update the cart in real-time and communicate with the backend to modify its content



The screenshot shows a shopping cart page with two items: 'Handcrafted Furniture' and 'Handmade Bags (Color: Red)'. The total cart amount is \$29.98. Shipping options include Free Shipping (\$0.00), Standard (\$10.00), and Express (\$20.00). A coupon code input field and an 'UPDATE CART' button are also present.

Product	Price	Quantity	Total
Handcrafted Furniture	\$9.99	1	\$9.99
Handmade Bags (Color: Red)	\$19.99	1	\$19.99

**Cart Total:**  
Subtotal: \$29.98

**Shipping:**  
 Free Shipping \$0.00  
 Standard \$10.00  
 Express \$20.00

Estimate for Your Country

## Calculate Total and Checkout

Create API endpoints to calculate the cart's total amount, considering item prices, quantities, taxes, and discounts.

Implement an endpoint for initiating the checkout process, which includes order creation, address collection, and secure payment processing.

Display the cart total and offer a seamless checkout option.

Collect user shipping and payment information securely.

**Additional Considerations** Prioritize security through input validation, encryption (SSL/TLS), and access control.

Focus on user experience with responsive design.

Rigorously test the platform and optimize its performance.

Plan for scalability and ensure compliance with legal requirements

The screenshot shows the checkout process on the Artisans E-Commerce website. At the top, there's a header with navigation links for Home, Shop, Product, Pages, Blog, Elements, a search icon, a cart icon with a '2' notification, and user icons.

**Billing Details:**

- First Name \* (input field)
- Last Name \* (input field)
- Company Name (Optional) (input field)
- Country \* (input field)

**Your Order:**

Product	Total
Handcrafted Furniture	\$9.99
Handcrafted Bag (Color: Red)	\$19.99
<b>Total:</b>	<b>\$29.98</b>

**Artisans E-Commerce Checkout Form:**

Form fields include:

- Country \* (input field)
- Street address \* (input field)
- Appts, suite, unit etc ... (input field)
- Town / City \* (input field)
- State / County \* (input field)
- Postcode / ZIP \* (input field)
- Phone \* (input field)
- Email address \* (input field)
- Create an account?
- Ship to a different address?
- Order notes (optional) (text area)
- Notes about your order, e.g. special notes for delivery (text area)

Payment options on the right:

- Direct bank transfer
- Check payments
- Cash on delivery
- PayPal (with link to "What is PayPal?")
- Credit Card (Stripe) (with payment method icons: VISA, MasterCard, American Express, Visa Electron, and Stripe)

**Place Order** button.

## Conclusion

The Artisanal E-commerce Platform effectively fostered a thriving artisan community, simplified the buying process, and prioritised secure user registration. Its robust implementation of e-commerce frameworks and authentication protocols ensured a seamless and trustworthy shopping experience for users.