

Artisanal E-Commerce Platform Design Document

Phase 1: Problem Definition and Design Thinking

Problem Definition:

The project aims to develop an artisanal e-commerce platform using IBM Cloud Foundry. This platform will serve as a bridge between skilled artisans and a global audience, allowing artisans to showcase their handmade products and offering features like secure shopping carts, payment gateways, and an intuitive checkout process. The key tasks involved in this project include designing the e-commerce platform, implementing necessary features, and ensuring a seamless user experience.

Design Thinking:

1. Platform Design:

- Layout : The platform will have distinct sections for product categories, individual product pages, shopping cart, checkout, and payment.

![[Platform Layout]](images/platform_layout.png)

- Navigation: A user-friendly navigation system will be implemented to guide users through the platform effortlessly.

2. Product Showcase:

- Database Schema: Create a robust database to store product information, including images, descriptions, prices, and categories.
- Search and Filter Options: Provide users with advanced search and filtering capabilities to find products efficiently.

3. User Authentication:

- Registration and Login: Implement features for user registration and authentication. This will allow artisans and customers to access the platform securely.

- User Profiles: Users will have their own profiles to manage personal information, order history, and preferences.

4. Shopping Cart and Checkout:

- Cart Functionality: Develop a dynamic shopping cart that allows users to add, remove, and modify items.
- Checkout Process: Design a seamless checkout process with clear steps and progress indicators.
- Order Summary: Display a summary of the order before finalizing the purchase.

5. Payment Integration:

- Secure Payment Gateways: Integrate reliable and secure payment gateways to facilitate seamless transactions.

- Payment Confirmation: Provide users with a confirmation of their successful payment.

Next Steps:

1. Technical Stack Selection:

- Decide on the programming languages, frameworks, and technologies to be used for development.

2. Database Implementation:

- Set up the database and define the schema for storing product information.

3. User Authentication Module:

- Begin working on user registration and authentication features.

4. Platform Layout Mockup:

- Create a visual representation of the platform's layout.

5. Shopping Cart and Checkout Development:

- Start building the shopping cart functionality and checkout process.

6. Payment Gateway Integration:

- Integrate the chosen payment gateways for secure transactions.

7. Testing and QA:

- Thoroughly test the platform to ensure all features work seamlessly.

8. User Acceptance Testing (UAT):

- Involve stakeholders for UAT to gather feedback and make necessary adjustments.

9. Deployment and Go-Live:

- Deploy the platform on IBM Cloud Foundry and make it accessible to users.

10. Post-Launch Support and Maintenance: Monitor the platform, address any issues, and implement updates as needed.

This document serves as a blueprint for the initial phases of the project. It provides a clear roadmap for the development of the artisanal e-commerce platform. Each phase will be executed with precision and attention to detail to ensure a successful outcome.