Project Document: Artisanal E-Commerce Platform on IBM Cloud Foundry

Phase 1: Problem Definition and Design Thinking

Problem Definition

The objective of this project is to create an artisanal e-commerce platform using IBM Cloud Foundry. This platform aims to connect skilled artisans with a global audience by showcasing their handmade products. The platform's primary features include secure shopping carts, payment gateways, and an intuitive checkout process. The goal is to provide a seamless and user-friendly experience for both artisans and customers.

Design Thinking

Platform Design

Objective: Design an aesthetically pleasing and user-friendly platform layout.

Homepage: Create an engaging homepage with sections for product categories, featured products, and artisan profiles.
Product Categories: Organize products into categories for easy navigation.
Individual Product Pages: Each product should have a dedicated page with high-quality images, detailed descriptions, pricing, and customer reviews.
Shopping Cart: Implement a visually appealing shopping cart that displays added items, quantities, and total cost.
Checkout: Design a seamless and step-by-step checkout process, including shipping information, billing details, and order review.
Payment Integration: Integrate secure payment gateways that support various payment methods, such as credit cards, PayPal, and other popular options.

Product Showcase

Objective: Create a robust database to manage product information effectively.

Database Schema: Develop a database schema to store product details, including images, descriptions, prices, and categories.
Product Listings: Implement a user-friendly interface for artisans to add, edit, and manage their product listings.

User Authentication

Objective: Enable users (artisans and customers) to create accounts and access the platform.

User Registration: Develop a registration system that allows artisans and customers to create accounts using email or social media accounts.
User Profiles: Implement user profiles with options for artisans to showcase their work and customers to track their order history.

Shopping Cart and Checkout

Objective: Provide a smooth shopping experience from cart to checkout.

Add to Cart: Allow customers to easily add or remove items from their shopping cart, with real-time updates of cart contents.
Checkout Process: Streamline the checkout process by breaking it into manageable steps with clear progress indicators.

Payment Integration

Objective: Securely handle financial transactions within the platform.

Payment Gateways: Integrate reliable payment gateways that offer encryption and fraud protection.
Payment Options: Offer various payment methods to accommodate customer preferences.

User Experience

Objective: Prioritize a positive and intuitive user experience.

Responsive Design: Ensure the platform is accessible on different devices and screen sizes.
Search Functionality: Implement a search feature that enables users to find products quickly.
Feedback and Support: Provide mechanisms for users to contact customer support and provide feedback.
Performance Optimization: Optimize the platform's speed and performance to reduce loading times.
Testing and Quality Assurance: Conduct thorough testing to identify and fix any usability issues or bugs.

Conclusion

In this phase, we have defined the problem statement and outlined the key design thinking principles for building the artisanal e-commerce platform on IBM Cloud Foundry. The focus is on delivering a visually appealing, user-friendly, and secure platform that connects artisans with a global audience. The next phases will involve development, testing, and deployment to bring this concept to life.