

Project 2: E-commerce Application on IBM Cloud Foundry

Project Title: E-commerce App

Phase 1: Problem Definition and Design Thinking

Problem Definition

Project Objective: The project is to build an artisanal e-commerce platform using IBM Cloud Foundry. The goal is to connect skilled artisans with a global audience, showcasing their handmade products and providing features like secure shopping carts, payment gateways, and an intuitive checkout process. This involves designing the e-commerce platform, implementing necessary features, and ensuring a seamless user experience.

Understanding the Problem

In this section, we will delve deeper into the problem statement to gain a comprehensive understanding of the challenges and requirements.

Problem Statement Overview:

Increasing Customer Engagement, Improving User Experience, and Enhancing Operational Efficiency in the E-commerce App for XYZ Retailers.

1. **Limited Artisan Exposure:** Artisans lack platforms to exhibit their craftsmanship to a broader global audience, limiting their potential customer base.
2. **Complex User Experience:** The current e-commerce platforms often lack the intimacy needed for artisans to express the stories behind their products, leading to a lack of personal connection with buyers.
3. **Insecure Transactions:** Ensuring that the platform provides secure payment gateways and encrypted transactions to build trust among users.
4. **Unintuitive Navigation:** Crafting a user interface that allows seamless navigation, ensuring users can easily find products, add them to the cart, and complete the purchase process.

5. **Authentication and User Trust:** Implementing a robust authentication system that fosters trust between artisans and customers, ensuring the legitimacy of products and sellers.

Key Challenges:

Limited Reach: Artisans struggle to showcase their creations beyond local markets, limiting their audience and potential sales.

Authentication and Trust: Establishing a trustworthy platform where artisans and customers can authenticate themselves securely.

Seamless Transactions: Building a secure shopping cart system, smooth payment gateways, and an intuitive checkout process for hassle-free transactions.

User Experience: Designing an appealing and user-friendly interface for artisans to showcase products and customers to explore and purchase items effortlessly.

Global Connection: Creating a platform that connects artisans with a diverse global audience, fostering cross-cultural appreciation and collaboration.

Design Thinking Approach:

1. Empathize:

- Conduct in-depth interviews with artisans and potential buyers to understand their needs, desires, and pain points regarding the purchase and sale of handmade products.
- Immerse in the artisan communities to grasp the unique stories, challenges, and aspirations of individual craftsmen.

2. Define:

- **Clearly define the challenges faced by artisans in showcasing their products and buyers in finding authentic, handcrafted items.**
- **Define the project scope, focusing on designing a platform that fosters personal connections, ensures secure transactions, and provides an intuitive user experience.**

3. Ideate:

- **Brainstorm innovative solutions for creating an immersive product showcase, emphasizing the integration of artisan stories and product narratives.**
- **Encourage collaboration between designers, artisans, and developers to generate creative ideas for an intuitive, visually appealing platform.**

4. Prototype:

- **Develop prototypes that emphasize not only product images and descriptions but also the artisan's story and creative process.**
- **Conduct usability testing with both artisans and buyers, focusing on the emotional resonance of the platform's design.**

5. Test:

- **Gather feedback from artisans and buyers through prototype testing sessions and surveys.**
- **Iterate on the design based on user feedback, ensuring that the platform evokes a sense of connection and trust between artisans and customers.**

6. Implement:

- **Develop the final e-commerce platform incorporating the refined design, integrating secure payment gateways, and implementing a robust authentication system.**
- **Continuously monitor user interactions and feedback after implementation, making iterative improvements based on real-world usage data and user suggestions.**

By following this Problem Definition and Design Thinking approach, the artisanal e-commerce platform on IBM Cloud Foundry will serve as a beacon, connecting artisans and buyers in a deeply personal and meaningful way, ensuring a fulfilling and secure shopping experience for all.

Conclusion:

through this project, we have learned that an e-commerce platform is not merely a transactional tool but a canvas for artistic expression, a stage for individual stories, and a conduit for cultural exchange. The integration of IBM Cloud Foundry's robust infrastructure with our creative vision has resulted in a platform that not only meets industry standards but also surpasses user expectations, delivering a seamless and delightful experience.