

## **Phase 1: Problem Definition and Design Thinking**

We have presented this Document on, what we have understood from the problem statement and how we will proceed ahead with solving the problem.

### **Problem Definition:**

The project entails creating an artisanal e-commerce platform utilizing IBM Cloud Foundry. The primary aim is to establish a conduit between skilled artisans and a global audience, offering a platform for showcasing and selling handmade products. The platform's core functionalities will encompass secure shopping carts, integrated payment gateways, and a user-friendly checkout process. The challenge lies in designing and implementing these features while ensuring a seamless and engaging user experience for both artisans and customers. The successful execution of this project will result in a thriving e-commerce platform that empowers artisans and provides customers with a seamless and secure shopping experience.

### **Design Thinking:**

#### **Platform Design:**

- Create an intuitive layout for the e-commerce platform to enhance user engagement and navigation.
- Employ a clean and organized design with distinct sections for product categories, individual product pages, shopping cart, checkout, and payment.
- A visually appealing platform that encourages users to explore and make purchases.

#### **Product Showcase:**

- Provide a database system for storing and managing product information.
- Develop a structured database to house essential product details such as images, descriptions, prices, and categories.
- A well-organized product catalog that enables easy browsing and searching for customers.

#### **User Authentication:**

- Enable artisans and customers to register and authenticate themselves on the platform.
- Implement secure user registration and authentication features to safeguard user data and provide personalized experiences.
- A secure and reliable authentication system that fosters trust and ensures a tailored experience for each user.

#### **Shopping Cart and Checkout:**

- Facilitate a seamless shopping experience for customers, allowing them to add items to their cart and complete transactions effortlessly.
- Design and develop a user-friendly shopping cart with features like item quantity adjustments and easy removals. Implement a smooth and intuitive checkout process with clear steps and prompts.
- A hassle-free shopping and checkout process that encourages users to complete their purchases.

**Payment Integration:**

- Integrate secure and reliable payment gateways to enable secure transactions on the platform.
- Select and integrate reputable payment gateways compatible with IBM Cloud Foundry. Ensure compliance with industry-standard security protocols.
- A secure payment system that instills confidence in users, leading to increased conversions and customer satisfaction.

**User Experience**

- Prioritize user experience to create a seamless, engaging, and visually pleasing environment for both artisans and customers.
- Employ user-centric design principles, optimize loading times, and ensure mobile responsiveness. Solicit user feedback and conduct usability testing to fine-tune the platform.
- An intuitive and visually appealing platform that fosters positive interactions and encourages repeat visits