

# E-commerce Application on IBM Cloud Foundry

## Phase 1: Problem Definition and Design Thinking

**Problem Definition:** 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.

How to solve?:

- Gather information about the artisan and their handcraft products.
- Create advertisements and promote it for artisans to join our platform.
- Promote it on some social media for artisans to reach out to our platform.

DESIGN THINKING:

❖ Platform Design:

We aimed to make it both pretty and easy to use for artisans and customers. The website is divided into different parts, including:

- Product Categories:

Grid or list view of product categories, Subcategories or filters to narrow down options, Sorting options like price, popularity

- Individual Product Pages:

Each product has its own page where artisans can show off their work. These pages include good pictures, detailed descriptions, the price, and reviews from other customers to give a complete picture of the product.

- Shopping Cart:

Shopping Cart usually contains list of added items with product details, Option to update quantity or remove items

- Checkout:

Customer information form name address, email, phone no ,Shipping options, Payment method selection.

#### ❖ Product Showcase:

To make products look good, we set up a strong database system to store information about them. This includes:

- Images: We use high-quality images to show off the products and their details.
- Descriptions: We provide detailed descriptions to give customers all the important information about the product.
- Prices: We display the price clearly so customers know how much they'll pay.
- Categories: We organize products into logical groups to help customers find what they want.

#### ❖ User Authentication:

To keep everything secure, Develop a login form with fields for email and password.

Implement authentication middleware that checks user credentials against the database during login.

Enable Two-Factor Authentication

#### ❖ Shopping Cart and Checkout:

Shopping Cart: It is used to remove or add items, Change quantities.

Checkout: Here ,we enter the shipping details ,choose payment methods.

#### ❖ Payment Integration:

Select a payment gateway, sign up for an account with your chosen payment gateway provider.

Create a payment forms for users to enter their payment information securely.

Support various payments methods like credit/debit cards, digital wallets and bank transfer.

Develop error handling mechanisms to gracefully handle payment failures

#### ❖ User Experience:

Ensure a seamless user experience by making the payment process intuitive and responsive.

Understand the target audience's needs, preferences, and pain points through user research.

Design your platform with the user's perspective in mind, ensuring it caters to their goals.

Ensure your platform is accessible function on various devices, including smartphones , tablets and desktops .