# **Project : E-commerce Application on IBM Cloud Foundry**

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

# **Problem Definition**

# The project aims to develop an artisanal e-commerce platform using IBM Cloud Foundry. The primary goal is to connect skilled artisans with a global audience by providing a platform for showcasing their handmade products. This involves designing an e-commerce platform, implementing necessary features, and ensuring a seamless user experience. Key features include secure shopping carts, payment gateways, an intuitive checkout process, and a well-structured product showcase.

# Design Thinking

# Platform Design

# **1. Layout and Sections:**

# Design the platform layout with distinct sections:

# - Product Categories

# - Individual Product Pages

# - Shopping Cart

# - Checkout

# - Payment

# **2. Responsive Design:**

# Ensure the platform is responsive, accessible across various devices, offering a consistent experience.

# Product Showcase

# **1. Database Schema:**

# - Store product information:

# - Images

# - Descriptions

# - Prices

# - Categories

# **2. Search and Filter**:

# Implement search and filter functionalities to allow users to easily navigate and find products.

# User Authentication

# **1. Registration and Login:**

# - Implement a user registration system.

# - Enable authentication for artisans and customers.

# **2. Profile Management:**

# Allow users to manage their profiles and track their order history.

# Shopping Cart and Checkout

# **1. Shopping Cart Functionality:**

# - Allow users to add/remove items from their shopping cart.

# - Display cart contents and total.

# **2. Smooth Checkout Process:**

# - Design an intuitive and step-by-step checkout process.

# - Collect necessary information for successful order placement.

# Payment Integration

# **1. Secure Payment Gateways:**

# - Integrate trusted and secure payment gateways.

# - Enable various payment options (e.g., credit/debit cards, digital wallets).

# **2. Transaction Confirmation:**

# Send email/SMS notifications upon successful transaction and order placement.

# User Experience

# **1. Intuitive Interface:**

# - Design an easy-to-navigate, intuitive interface.

# - Prioritize a clean and uncluttered design.

# **2. Feedback Mechanism:**

# Collect and utilize user feedback to make continuous improvements to the platform.

# Next Steps

# **1. Detailed Design:**

# - Elaborate on the platform layout, wireframes, and database design.

# - Specify technologies and frameworks to be used.

# **2. Development:**

# - Begin development based on the design specifications.

# - Regularly review progress and iterate as needed.

# **3. Testing:**

# - Conduct thorough testing of the platform, ensuring all features work as expected.

# - Address any bugs or issues identified.

# **4. Deployment:**

# - Deploy the application on IBM Cloud Foundry.

# - Configure necessary settings for optimal performance and scalability.

# **5. User Feedback and Iteration:**

# - Gather user feedback through testing and initial usage.

# - Incorporate feedback for refinements and improvements.