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Problem Definition:

Build an artisanal e-commerce platform using IBM Cloud Foundry. Connect skilled artisans with a global audience. Showcase handmade products, from exquisite jewelry to artistic home decor. Implement secure shopping carts, smooth payment gateways, and an intuitive checkout process. Nurture creativity and support small businesses through an artisan's dream marketplace.

1. Define Your Artisan E-commerce Platform's Goals and Features:

Clearly define the objectives of your platform. Identify key features such as product listings, secure shopping carts, payment gateways, user profiles, reviews, and more. Understand your target audience and their needs.

2. Set Up IBM Cloud Foundry:

Create an IBM Cloud account if you don't already have one. Install and configure the IBM Cloud CLI. Create an IBM Cloud Foundry application where your e-commerce platform will be hosted.

3. Choose and Set Up a Database:

Decide on a database solution like IBM Db2, PostgreSQL, or a NoSQL database like Cloudant. Configure and set up the chosen database to store product information, user data, and transaction records.

4. Develop the Frontend:

Choose a technology stack for your frontend (e.g., React, Angular, or Vue.js). Create a user-friendly and visually appealing interface for your platform. Implement responsive design for mobile devices. Integrate the frontend with your IBM Cloud Foundry application.

5. Build the Backend:

Choose a backend technology stack (e.g., Node.js, Ruby on Rails, Python with Flask/Django). Develop APIs for user registration, product listing, shopping carts, and payment processing. Implement user authentication and authorization. Connect the backend to the database.

6. Implement Product Listings:

Allow artisans to create profiles and list their products. Include options for product images, descriptions, prices, and categories. Implement a search and filtering system to help users discover products easily.

7. Secure Shopping Carts and Checkout:

Develop a secure shopping cart system that allows users to add and remove items. Implement a smooth and intuitive checkout process with multiple payment options. Ensure the handling of sensitive user data (credit card information) follows security best practices.

8. Payment Gateway Integration:

Choose a payment gateway provider (e.g., Stripe, PayPal, Square). Integrate the selected payment gateway to handle transactions securely. Test payment processing thoroughly to ensure it works seamlessly.

9. User Reviews and Ratings:

Allow users to leave reviews and ratings for products. Implement a moderation system to filter inappropriate content. Display reviews and ratings on product pages.

10. User Profiles and Social Features:

Create user profiles with personal information and order history. Implement social features like following favorite artisans and sharing products on social media.

11. Testing and Quality Assurance:

Conduct thorough testing, including unit testing, integration testing, and user acceptance testing. Identify and fix any bugs or issues.

12. Security and Compliance:

Implement security measures to protect user data and prevent fraud. Ensure compliance with data protection regulations (e.g., GDPR).

13. Deployment and Scaling:

Deploy your e-commerce platform to IBM Cloud Foundry. Monitor and scale your application as needed to handle increased traffic.

14. Marketing and Promotion:

Develop a marketing strategy to attract artisans and customers to your platform. Use digital marketing, social media, and SEO to drive traffic.

15. Ongoing Maintenance and Support:

Provide ongoing support to users and artisans. Regularly update and enhance the platform based on user feedback and changing market trends.

16. Analytics and Insights:

Implement analytics tools to track user behavior and gather insights for improving the platform.