E-COMMERCE APPLICATION ON IBM CLOUD FOUNDRY

Project Tittle: E-Commerce Application

Phase 3: Development Part 1

Introduction:

that exemplifies the convergence of art, commerce, and technology. This project's documentation serves as

In an increasingly digital and interconnected world, artisans, with their unique craftsmanship and handcrafted creations, seek opportunities to reach a global audience and share their talents with the world. Simultaneously, discerning consumers are on the lookout for distinctive, artisanal products that reflect a touch of craftsmanship and a story behind each creation. Bridging this gap is the primary objective of our project, the "Artisanal E-Commerce Marketplace on IBM Cloud Foundry."

Our project embarks on a journey to design and develop an online platform that serves as a thriving marketplace for skilled artisans to showcase their handmade products, while offering a secure and user-friendly shopping experience for customers. Through the synergy of artistry and technology, we aim to create an inclusive and accessible space where artisans can bring their creations to the global stage, and customers can explore and appreciate the world of artisanal craftsmanship.

The choice of IBM Cloud Foundry as our technology platform signifies our commitment to leveraging robust and scalable cloud infrastructure to ensure seamless and reliable operations. This project encapsulates a comprehensive approach, from platform design to user authentication, product showcasing to payment integration, and a user-centric focus on providing an intuitive and visually appealing experience. Our aspiration is to not only provide a platform but to foster a community that celebrates the spirit of craftsmanship.

As we embark on this journey, we are poised to harness the power of technology to empower artisans, create a harmonious marketplace for all stakeholders, and embark on a venture a

testament to our dedication and as a guide to the intricate dance between artisanal creations and the digital world.

Activity 1: Application Development:

Description

During this activity, we focused on developing new features for the artisanal e-commerce platform.

Accomplishments

- Implemented a secure shopping cart feature.
- Added support for artisan registration and authentication.
- Developed a visually appealing user interface.

Challenges and Solutions

- **Challenge:** Implementing secure payment gateways. **Solution:** Integrated Stripe for secure payment processing.
- **Challenge:** Ensuring compatibility with different browsers and devices. **Solution:** Conducted cross-browser and cross-device testing.

Code Snippets or Configurations

```
// Sample code snippet

const secureShoppingCart = require('secure-shopping-cart-library');

// Integration with Stripe payment gateway
```
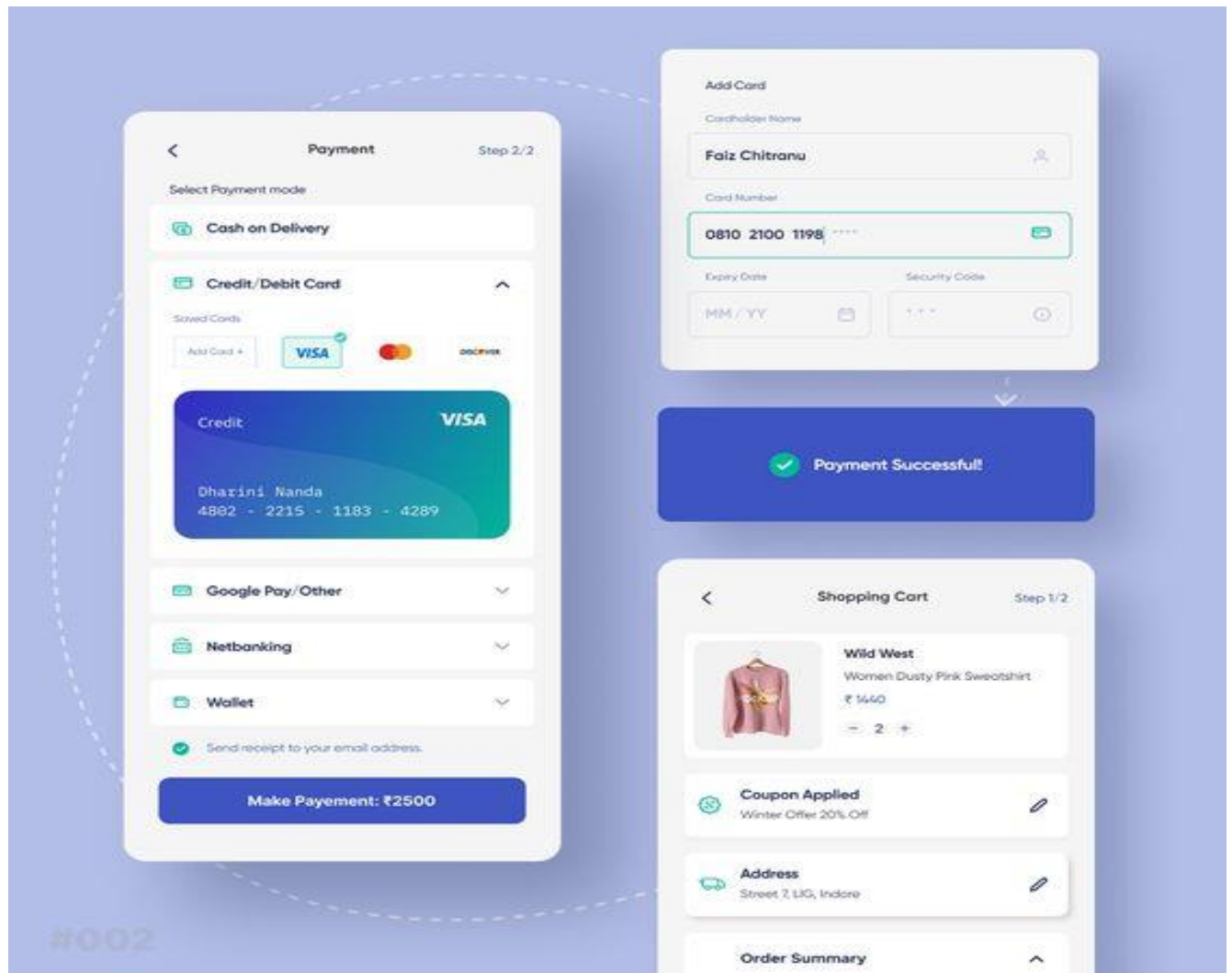
Activity 2: User Acceptance Testing (UAT)

Description

User acceptance testing was conducted to gather feedback and ensure the application meets user expectations.

Accomplishments

- Successfully conducted UAT with a group of artisans and customers.
- Gathered valuable feedback on the shopping cart and checkout process.

Challenges and Solutions

- **Challenge:** Coordinating remote testing sessions. **Solution:** Leveraged video conferencing tools for remote UAT.

Activity 3: Scaling and Optimization

Description

This activity involved optimizing the application's performance and scaling it to handle increased traffic.

Accomplishments

- Scaled the application by adding additional instances to meet demand.
- Reduced resource loading times for faster user experiences.

Challenges and Solutions

- **Challenge:** Handling spikes in traffic during promotional events. **Solution:** Automated scaling based on traffic patterns.

Code Snippets or Configurations

```
# Command for scaling the application

ibmcloud cf scale artisanal-ecommerce -i 3
```

Conclusion

Phase 3 of the project marked significant progress in developing and optimizing the artisanal e-commerce platform. The successful implementation of secure shopping cart functionality, positive UAT feedback, and efficient scaling strategies have positioned the project for a successful launch in the next phase.