**CLOUD APPLICATION DEVELOPMENT**

**TEAMMEMBER**

**812821205048 : SARAN S**

# Phase-1 word Submission

**PROJECT :**

**E-Commerce Application On IBM Cloud Foundry**

**PHASE-1:**

**Development Part 1**

**ABSTRACT:**

**\*\* This project aims to create an artisanal E-Commerce platform hosted on IBM Cloud Foundry.**

**\*\* The platform will support the sale of handmade and unique products.**

**\*\*This initiative leverages the power of cloud computing to enable artisans and small businesses to reach a global customer base.**

**OBJECTIVES:**

1. ***\*Platform Development\*:* Develop a user-friendly eCommerce platform that allows artisans to showcase their products and customers to browse, select, and purchase items.**
2. ***\*IBM Cloud Foundry***

***Integration\*:***

**Host the platform on IBM Cloud Foundry, leveraging its scalability and reliability.**

1. ***\*User Authentication\*:* Implement a secure user authentication system to protect user data and transactions.**
2. ***\*Product Database\*:* Create a database structure to store detailed product information, including product name, description, price, and images.**
3. ***\*Search and Navigation\*:* Implement search and navigation features to help customers easily find and explore products.**
4. ***\*Payment Processing\*:* Integrate secure payment processing to facilitate online transactions.**
5. ***\*Vendor Dashboard\*:* Provide artisans with a dashboard to manage product listings, inventory, and order fulfillment.**

**Development of E-Commerce Application On IBM Cloud Foundry:**

***1. \*Setting up IBM Cloud***

***Foundry:\****

**First, make an IBM Cloud account and have the IBM Cloud**

**CLI installed. Then, target the Cloud Foundry service and create an app.**

**# Log in to IBM Cloud ibmcloud login**

**# Target the Cloud Foundry service ibmcloud target --cf # Create an app ibmcloud cf create-service**

**<service-name> <service-plan>**

**<service-instance>**

# \*Create a Basic Platform Layout:\*

**For the platform layout, can use HTML, CSS, and JavaScript to create a simple web page.**

**<!-- index.html -->**

**<!DOCTYPE html>**

**<html>**

**<head>**

**<title>Artisanal eCommerce</title>**

**<link rel="stylesheet" type="text/css" href="style.css">**

**</head>**

**<body>**

**<header>**

**<h1>Welcome to Artisanal eCommerce</h1>**

**</header>**

**<main>**

**<!-- Product listings will be displayed here -->**

**</main>**

**<footer>**

**&copy; 2023 Artisanal eCommerce**

**</footer>**

**</body>**

**</html>**

# \*Create a Database to Store Product Information:\*

**Can use a database service like IBM Cloudant to store product information.**

**# Create a Cloudant service instance ibmcloud cf create-service cloudant lite my-cloudant-db**

**# Bind the service to app ibmcloud cf bind-service <app-name> my-cloudant-db**

# \*Design the Database Schema:\*

**Define the structure of database to store product information, e.g., product name, description, price, image URL, etc. Can use JSON documents for this purpose.**

# \*Develop Backend API:\*

**To need a server-side application to interact with the database and serve product information to an eCommerce platform. Can use a web framework like Node.js with Express for this. Create API endpoints to perform CRUD operations on the product data.**

# \*Connect Frontend and Backend:\*

**Use JavaScript and AJAX or a frontend framework (e.g., React) to fetch and display product data from the backend API.**

# \*Deploy and Scale:\*

**Finally, deploy the web application to IBM Cloud Foundry:**

**bash**

**ibmcloud cf push**

**<app-name> SUMMARY:**

**\*\*\*This project seeks to build an artisanal eCommerce platform on IBM Cloud Foundry. It will support artisans in selling their unique products to a global audience. The platform will include a user-friendly interface, secure authentication, a comprehensive product database, efficient search functionality, and secure payment processing. Artisans will have access to a vendor dashboard to manage their listings and orders. This project combines cloud technology with eCommerce to empower artisans and small businesses in the digital marketplace.**