KGiSL Institute Of Technology
NAAN MUDHALVAN

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

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.

DEVELOPMENT:

Creating a full-fledged e-commerce platform involves a significant amount of code and configuration, which is beyond the scope of a single response. However, I can provide you with a basic outline and code snippets to get you started on building your artisanal e-commerce platform using IBM Cloud Foundry.

Steps:

1. Set Up Your Project Structure:

```
artisanal-ecommerce/

|-- public/

|   |-- index.html

|   |-- style.css

|-- server/

|   |-- server.js

|-- manifest. yml

|-- . cfignore
```

2. Implement Backend (server/server.js):

```
const  express = require('express');

const bodyParser = require('body-parser');

const app = express();

const port = process.env.PORT || 3000;


app.use(bodyParser.json());


// Implement your routes and logic for handling products, payments, etc.


app.listen(port, () => {
```

3. Implement Frontend (public/index.html):

```html
<!DOCTYPE html>

<html lang="en">


<head>

   <meta charset="UTF-8">

   <meta name="viewport" content="width=device-width, initial-scale=1.0">

   <link rel="stylesheet" href="style.css">

   <title>Artisanal E-Commerce Platform</title>

</head>


<body>

   <!-- Your HTML content for displaying products, shopping cart, and checkout form -->

</body>


</html>
```

4. Configure Manifest File (manifest.yml):

```yaml
applications:

- name: artisanal-ecommerce

  memory: 256M

  instances: 1

  buildpacks:

   - nodejs_buildpack
```

5. Secure Shopping Carts and Payments:

Integrate HTTPS for secure communication and implement secure payment gateway integration in your server.js file using the appropriate SDKs for the chosen payment service.

6. Deploy to IBM Cloud Foundry:

1. Login to IBM Cloud: **ibmcloud login**
2. Target your resource group: **ibmcloud target -g RESOURCE_GROUP**
3. Push your application: **ibmcloud cf push**

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