E-COMMERCE APPLICATION ON IBM CLOUD FOUNDRY

CAD_PHASE3

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ABSTRACT:

The main objective of our project is to create an online store.We'll build a website for the leather sector that is based on commerce.We would like to sell some leather-based goods in that sector, such as leather shoes, purses, belts, caps, wallets, watch straps, jackets, and gloves.To reach our product among all of them necessary is the fundamental demand for developing a website.For the purpose of keeping crucial data, including customer information, product information, sales and transaction data, and so on, we have established a database.

INDEX.HTML

```html
<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>E-Commerce Application</title>

    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-1BmE4kWBq78iYhFldvKuhfTAU6auU8tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIW3" crossorigin="anonymous">

    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js" integrity="sha384-ka7Sk0Gln4gmtz2MlQnikT1wXgYsOg+OMhuP+IlRH9sENBO0LRn5q+8nbTov4+1p" crossorigin="anonymous"></script>

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

</head>

<body>
```

```html
<nav class="navbar navbar-expand-lg navbar-light bg-light">

 <div class="container-fluid" id="navbar">

  <a class="navbar-brand" href="#"><B>INFINITEE</B></a>

  <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-expanded="false" aria-label="Toggle navigation">

   <span class="navbar-toggler-icon"></span>

  </button>

  <div class="collapse navbar-collapse" id="navbarSupportedContent">

   <ul class="navbar-nav me-auto mb-2 mb-lg-0">

    <li class="nav-item" id="navbar">

     <a class="nav-link active" aria-current="page" href="#">HOME</a>

    </li>

    <li class="nav-item" id="navbar" >

     <a class="nav-link active" href="#">SERVICES</a>

    </li>

    <li class="nav-item dropdown">

     <a class="nav-link active" href="#" id="navbarDropdown" role="button" data-bs-toggle="dropdown" aria-expanded="false">

      MY ACCOUNT

     </a>

    </li>

   </ul>

     <nav class="navbar" id="navbar">

   <div class="search-container">

     <input type="text" id="searchInput" placeholder="Search for items...">

     <button onclick="searchItems()">Search</button>

   </div>

  </nav>

 </nav>
```

```html
        </div>



        <div id="carouselExampleIndicators" class="carousel slide" data-bs-ride="carousel">
          <div class="carousel-indicators">
            <button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="0"
class="active" aria-current="true" aria-label="Slide 1"></button>
            <button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="1" aria-
label="Slide 2"></button>
            <button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="2" aria-
label="Slide 3"></button>
          </div>
          <div class="carousel-inner">
            <div class="carousel-item active">
              <img src="download (1).jpg" class="d-block w-100" alt="...">
            </div>
            <div class="carousel-item">
              <img src="download (2).jpg" class="d-block w-100" alt="...">
            </div>
            <div class="carousel-item">
              <img src="download (4).jpg" class="d-block w-100" alt="...">
            </div>
          </div>
        </div>


      <div class="product-container" id="productContainer">
        <div class="product-card-wrapper">
          <div id="productCardContainer-1">
            <div class="categories" id="categories1">
              <div class="row">
```

```html
    <div class=" card" style="width: 18rem" >
        <img src="download.jpg" alt="Product Image" class="product-image">
        <h2 class="product-title">naruto t-shirt </h2>
        <p class="product-price">$20</p>
        <button class="add-to-cart" onclick="addToCart(1)">Add to Cart</button>
        <button class="add-to-wishlist" onclick="addToWishlist(1)">Add to Wishlist</button>
    </div>
    <div class=" card" style="width: 18rem">
        <img src="download.jpg" alt="Product Image" class="product-image">
        <h2 class="product-title"> jujutsu t-shirt </h2>
        <p class="product-price">$20</p>
        <button class="add-to-cart" onclick="addToCart(1)">Add to Cart</button>
        <button class="add-to-wishlist" onclick="addToWishlist(1)">Add to Wishlist</button>
    </div>
    <div class=" card" style="width: 18rem">
        <img src="download.jpg" alt="Product Image" class="product-image">
        <h2 class="product-title">demon t-shirt</h2>
        <p class="product-price">$20</p>
        <button class="add-to-cart" onclick="addToCart(1)">Add to Cart</button>
        <button class="add-to-wishlist" onclick="addToWishlist(1)">Add to Wishlist</button>
    </div>
  </div>
</div>
<div>
  <div class="categories" id="categories2"></div>
    <div class="row">
      <div class="card" style="width: 18rem">
        <img src="download.jpg" alt="Product Image" class="product-image">
        <h2 class="product-title">Artisanal Item</h2>
```

```html
        <p class="product-price">$20</p>

        <button class="add-to-cart" onclick="addToCart(1)">Add to Cart</button>

        <button class="add-to-wishlist" onclick="addToWishlist(1)">Add to Wishlist</button>

    </div><div class="card" style="width: 18rem">

        <img src="download.jpg" alt="Product Image" class="product-image">

        <h2 class="product-title">Artisanal Item</h2>

        <p class="product-price">$20</p>

        <button class="add-to-cart" onclick="addToCart(1)">Add to Cart</button>

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        <h2 class="product-title">Artisanal Item</h2>

        <p class="product-price">$20</p>

        <button class="add-to-cart" onclick="addToCart(1)">Add to Cart</button>

        <button class="add-to-wishlist" onclick="addToWishlist(1)">Add to Wishlist</button>

    </div>

  </div>

</div>

  </div>

<div>

<div class="categories" id="categories">

   <div class="row">

     <div class="card" style="width: 18rem">

        <img src="download.jpg" alt="Product Image" class="product-image">

        <h2 class="product-title">Artisanal Item</h2>

        <p class="product-price">$20</p>

        <button class="add-to-cart" onclick="addToCart(1)">Add to Cart</button>

        <button class="add-to-wishlist" onclick="addToWishlist(1)">Add to Wishlist</button>

     </div><div class="card" style="width: 18rem">
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        <button class="add-to-cart" onclick="addToCart(1)">Add to Cart</button>

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        <p class="product-price">$20</p>

        <button class="add-to-cart" onclick="addToCart(1)">Add to Cart</button>

        <button class="add-to-wishlist" onclick="addToWishlist(1)">Add to Wishlist</button>

      </div>

    </div>

  </div>

  </div>

     </div>

     </div>

  </div>

</div>



<div class="wishlist-container" id="wishlistContainer">

  <!-- Wishlist Items will be dynamically added here -->

</div>



<div class="cart-container" id="cartContainer">

  <!-- Cart Items will be dynamically added here -->

</div>
```

```html
    <script src="scrpt.js"></script>

</body>

</html>
```

STYLE.CSS

```css
.card {

    width: 250px;

    padding: 30px;

    background-color: rgb(223, 227, 231);

    border-radius: 15px; /* Adjust the radius to control the curve */

    box-shadow: 0 8px 8px rgba(25, 22, 22, 0.1); /* Add a shadow */

    margin: 30px;

}



.carousel-indicators .active {

    opacity: 1; /* Make the active dot fully visible */

}



/* Style the carousel control buttons */

.carousel-control-prev-icon,

.carousel-control-next-icon {

    background-color: #007bff; /* Change the color of the control icons */

    color: rgb(223, 227, 231); /* Set the color of the icon */

    border-radius: 50%; /* Make the icon circular */

    padding: 10px; /* Adjust the padding around the icon */

}
```

```css
/* Adjust the position of the control buttons */

.carousel-control-prev,

.carousel-control-next {

    width: auto;

    margin: 0;

    background: none;

}



/* Style the images within the carousel */

.carousel-inner img {

    object-fit: auto;

    max-height: 250px; /* Set a maximum height for the images */

}



/* Customize the caption text (if used) */

.carousel-caption {

    background-color: rgba(0, 0, 0, 0.5); /* Add a semi-transparent background */

    color: #c95d6f; /* Set the text color */

    padding: 10px; /* Add padding around the caption text */

}



/* Style the visually hidden class for accessibility */

.visually-hidden {

    position: absolute;

    width: 1px;
```

```css
    height: 1px;

    clip: rect(1px, 1px, 1px, 1px);

    overflow: hidden;

    white-space: nowrap;

}



body {

    background-color: darkslategrey;

    font-family: Arial, sans-serif;

    margin: 0;

    padding: 20px;

}



.categories {

    margin-bottom: 30px;

}



h2 {

    margin-bottom: 10px;

}



.card {

    border: 1px solid #7e7777;

    border-radius: 8px;

    padding: 10px;

    margin-bottom: 10px;
```

```
}



.card h3 {

    margin: 0;

}




.card p {

    margin: 10px 0;

}
```

SCRIPT.JS

```javascript
function createProductCard(product) {

    const productCard = document.createElement("div");

    productCard.classList.add("product-card");




    productCard.innerHTML = `

        <img src="product-image.jpg" alt="Product Image" class="product-image">

        <h2 class="product-title">${product.title}</h2>

        <p class="product-price">${product.price}</p>

        <button class="add-to-cart" onclick="addToCart(${product.id})">Add to
Cart</button>

        <button class="add-to-wishlist"
onclick="addToWishlist(${product.id})">Add to Wishlist</button>

    `;




    return productCard;

}
```

```javascript
// Function to add product cards to the product container

function renderProducts() {
        const productContainer = document.getElementById("productContainer");

        const productCardWrapper = document.createElement("div");

        productCardWrapper.classList.add("product-card-wrapper");


        products.forEach(product => {
            const productCard = createProductCard(product);

            productCardWrapper.appendChild(productCard);

        });


        productContainer.appendChild(productCardWrapper);

    }



// Function to add a product to the cart

function addToCart(productId) {

    const product = products.find(p => p.id === productId);

    const cartContainer = document.getElementById("cartContainer");

    const cartItem = document.createElement("div");

    cartItem.classList.add("cart-item");

    cartItem.textContent = `${product.title} - ${product.price}`;

    cartContainer.appendChild(cartItem);

}



// Function to toggle the visibility of the wishlist container

function toggleWishlist() {
```

```javascript
    const wishlistContainer = document.getElementById("wishlistContainer");

    wishlistContainer.style.display = wishlistContainer.style.display === "none"
? "flex" : "none";

}




// Function to add a product to the wishlist

function addToWishlist(productId) {

    const product = products.find(p => p.id === productId);

    const wishlistContainer = document.getElementById("wishlistContainer");

    const wishlistItem = document.createElement("div");

    wishlistItem.classList.add("wishlist-item");

    wishlistItem.textContent = `${product.title} - ${product.price}`;

    wishlistContainer.appendChild(wishlistItem);

}




// Function to toggle the visibility of the cart container

function toggleCart() {

    const cartContainer = document.getElementById("cartContainer");

    cartContainer.style.display = cartContainer.style.display === "none" ? "flex"
: "none";

}




// Render the products when the page loads

window.onload = renderProducts;




function searchItems() {

    const searchInput =
document.getElementById("searchInput").value.toLowerCase();
```

```javascript
    const productCards = document.querySelectorAll(".card");

    productCards.forEach(card => {
        const title = card.querySelector(".product-
title").textContent.toLowerCase();
        const price = card.querySelector(".product-
price").textContent.toLowerCase();

        if (title.includes(searchInput) || price.includes(searchInput)) {
            card.style.display = "block";
        } else {
            card.style.display = "none";
        }
    });
}


function renderCategories() {
    const categoriesContainer = document.getElementById("categories");
    categories.forEach(category => {
        const categoryElement = document.createElement("div");
        categoryElement.classList.add("category");
        categoryElement.textContent = category;
        categoryElement.addEventListener("click", () =>
filterProducts(category));
        categoriesContainer.appendChild(categoryElement);
    });
}
```

```javascript
function addToCart(productTitle) {

    alert(`Product "${productTitle}" added to cart!`);

}
```

```javascript
function addToWishlist(productTitle) {

    alert(`Product "${productTitle}" added to wishlist!`);

}
```

Database: IBM cloud is a vast data storage method . The IBM®Cloudant distributed database has a 99.99% SLA and is completely managed. It is designed for heavy workloads and quickly expanding online and mobile apps. For hybrid or multicloud systems, Cloudant's API and replication protocols are compatible with Apache CouchDB and it elastically scales throughput and storage. We have use cloudant database with json for creating datbases which were required for storaging information in ecommerce website by using ibm cloud.three databases are created for storing information.Database1 is used for storing product details,database2 is used for storing customer details and database3 is used for sale and order

Query:

 Datbase1:product details (IBM link for product details: { "id": "7eeb69405a1c1fee787bbe6ce927116f", "key": "7eeb69405a1c1fee787bbe6ce927116f", "value": { "rev": "2-f0122cf7f17152dbe0fead3247833748" } }) { "prod_id":"lp001", "product_name":"leather shoes", "description":"durability for timeless footwear ", "price":"$50", "stock":"full" } { "prod_id":"lp002", "product_name":"leather bags", "description":"adding a touch of sophistication to your outfit", "price":"$70", "stock":"full" } { "prod_id":"lp004", "product_name":"leather belts", description:"adding a polised look to your attair", price:"$40", stock:"full" } { "prod_id":"lp005", "product_name":"leather jackets", "description":"blend of classic and warmth", "price" :"$80", "stock":"full" } { "prod_id":"lp006", "product_name":"leather gloves", "description":"keeping your hands cozy", "price":"$25", "stock":"full" } { "prod_id":"lp007", "product_name":"leather wristwatch", "description":"making your watch stretchable", "price":"$20", "stock":"full" } { "prod_id":"lp008", "product_name":"leather hats", "description":"offers fashionable touch to you", "price":"$30", "stock":"full" } Database2:customer details(IBM link for customer details: { "id": "058a624389be77f19cf0e854a9ed05b0", "key": "058a624389be77f19cf0e854a9ed05b0", "value": { "rev": "1-944a1cf94daebcce92a5d811db164291" } }) { "0": { "cus id": "li001", "fname": "abi", "lname": "naya", "gender": "F", " email_id": "abinaya06@gmail.com", "address": "no 4,keelaraja veedi ,thanjavur-614625, ph-no:9863457890" }, "1": { "cus id": "li002", "fname": "abinesh", "lname": "bath", "gender":

"M", " email_id": "abiabinesh@gmail.com", "address": "no-436,maada veedi ,cumbum,theni-600875,ph-no:8882657890" }, "2": { "cus id": "li003", "fname": "lansuri", "lname": "", "gender": "F", " email_id": "lansu2003@gmail.com", "address": "no-436,mgr nagar ,sollinganallur,chennai-600011,ph-no:8626987090" }, "3": { "cus id": "li004", "fname": "siva", "lname": "sakthi", "gender": "O", " email_id": "sivasakthi10@gmail.com", "address": "no-424,muslim street,old town ,cuddalore-600005,ph-no:8751723120" }, "4": { "cus id": "li005", "fname": "zach", "lname": "hamin", "gender": "M", " email_id": "riderzachh@gmail.com", "address": "no-7,north st ,thaiyur,kallakuruchi-610875,ph-no:8229317890" }, "_id": "058a624389be77f19cf0e854a9ed05b0", "_rev": "1-944a1cf94daebcce92a5d811db164291" } Database 3:sales and transaction:(IBM link for sales& transaction: { "id": "0e2c158d1f8c6cbf3f1fa40285a6d5c5", "key": "0e2c158d1f8c6cbf3f1fa40285a6d5c5", "value": { "rev": "1-d3561814f3848fa3fbb2e73b84cb7ccf" } }) [{ "order id":"OCP001", "customer id":"li002", "product id":"lp002", "order date":"20/04/2023", "received by":"23/04/2023", "quantity":"1", "total":"$51" }, { "order id":"OCP002", "customer id":"li003", "product id":"lp001", "order date":"21/04/2023", "received by":"24/04/2023", "quantity":"1", "total":"$71" }, { "order id":"OCP003", "customer id":"li004", "product id":"lp004", "order date":"25/04/2023", "received by":"28/04/2023", "quantity":"1", "total":"$41" }, { "order id":"OCP004", "customer id":"li005", "product id":"lp003", "order date":"26/04/2023", "received by":"29/04/2023", "quantity":"2", "total":"$82" }, { "order id":"OCP005", "customer id":"li001", "product id":"lp007", "order date":"30/04/2023", "received by":"02/05/2023", "quantity":"1", "total":"$41" }]

Conclusion:

This cloud-based e-commerce website represents the future of online retail, offering businesses the tools they need to succeed in the digital age. With its scalability, reliability, security, and flexibility, it empowers businesses to adapt to ever-changing market demands, while providing customers with a convenient, personalized, and efficient shopping experience. The cloud is the backbone of this innovative platform, ensuring it remains at the forefront of e-commerce technology.Front end involves all the user required features while the cloudant is act as a backbone for storing information via databases