PROJECT: E-COMMERCE APPLICATION ON IBM CLOUD FOUNDARY

PHASE 4:

In this technology projects you will continue building your project using IBM Cloud Foundry. Perform different functions as per project requirement. After performing the relevant activities create a document around it and share the same for assessment.

WEBSITE DESIGN:

Website design is the process of creating the visual and functional elements of a website. It encompasses various aspects, from the layout and graphics to the user interface and user experience. Here is an overview of key considerations and elements in website design:

1. **Purpose and Goals**: Before designing a website, it's crucial to define its purpose and goals. Is it an e-commerce site, a blog, a portfolio, or a corporate website? Knowing the purpose helps determine the design and content.
2. **Target Audience**: Understanding your target audience is essential. Different demographics have varying preferences, and your design should cater to the needs and expectations of your audience.
3. **Layout and Structure**:
   - **Wireframing**: Start with a wireframe to plan the layout and structure. This is a basic visual representation of the page's design.
   - **Grid System**: Utilize a grid system to maintain consistency and alignment throughout the site.
4. **Visual Design**:
   - **Color Scheme**: Choose a color scheme that aligns with your brand and appeals to your target audience.
   - **Typography**: Select readable and appropriate fonts for headings, subheadings, and body text.
   - **Images and Graphics**: Use high-quality images, icons, and graphics that enhance the visual appeal and convey your message effectively.
5. **Navigation**:
   - Create a user-friendly navigation menu that makes it easy for visitors to find information.
   - Use breadcrumb trails, search bars, and sitemaps for larger websites.
6. **Responsive Design**: Ensure your website is responsive, meaning it adapts to different screen sizes and devices, including smartphones and tablets.
7. **User Experience (UX)**:
   - Focus on providing a positive user experience by simplifying navigation and minimizing friction in tasks.

- Optimize page loading times for a better user experience.

8. **Content**:
   - Ensure the content is well-structured, organized, and easy to read.
   - Use high-quality, engaging, and relevant content to capture and retain the audience's attention.

9. **Call-to-Action (CTA)**: Incorporate clear and compelling CTAs to guide users toward desired actions, such as signing up for a newsletter or making a purchase.

HANDCRAFT PRODUCT:

Handcraft, or handcrafted items, serve various functions and play important roles in our lives and society. These functions go beyond mere utility and often include cultural, artistic, and economic aspects. Here are some of the key functions of handcraft:

1. **Cultural Preservation**: Handcrafted items often reflect the traditions, values, and cultural heritage of a particular region or community. They help preserve and transmit cultural knowledge and traditions from one generation to the next.
2. **Artistic Expression**: Many handcrafted items are works of art in themselves. They showcase the creativity and artistic skills of the craftsperson. Handcraft allows artisans to express their unique artistic vision through their creations.
3. **Customization**: Handcraft allows for a high degree of customization. Craftsmen and craftswomen can create bespoke items tailored to the specific needs and preferences of individual customers.
4. **Sustainability**: Handcrafted products are often associated with sustainability and eco-friendliness. They tend to use fewer resources, generate less waste, and have a smaller carbon footprint compared to mass-produced items.
5. **Quality and Durability**: Handcrafted items are typically made with great care and attention to detail. This often results in higher quality and greater durability compared to mass-produced goods.
6. **Unique and One-of-a-Kind**: Handcrafted items are often unique or one-of-a-kind, which adds a sense of exclusivity and personal connection for the owner.
7. **Economic Contribution**: Handcraft is a source of income for artisans and local economies. It can create job opportunities in rural and marginalized areas and contribute to poverty alleviation.
8. **Cultural Exchange**: Handcrafted items can facilitate cultural exchange. They are often sought after as souvenirs or gifts, helping to share and exchange cultural experiences and traditions.

9. **Heritage and Tradition**: Handcraft often involves traditional techniques and materials passed down through generations. These practices help maintain a sense of heritage and tradition.
10. **Human Connection**: The process of making and acquiring handcrafted items fosters a sense of human connection. Customers often have a direct relationship with the artisan, knowing who made their product and how it was made.

WEBPAGE :

Creating an e-commerce website involves building an online platform for buying and selling products or services. Here is an overview of the key components and considerations for an e-commerce website:

1. **Product Listings**:
   - **Product Descriptions**: Provide detailed and engaging descriptions for each product, including specifications, features, and pricing.
   - **High-Quality Images**: Use high-resolution images to showcase products from various angles.
   - **Product Categories**: Organize products into categories and subcategories to make navigation easier.
2. **Shopping Cart**:
   - Allow users to add items to their cart, review their selections, and proceed to checkout.
   - Include features like quantity adjustments and the ability to remove items.
3. **Checkout Process**:
   - Streamline the checkout process to reduce friction and cart abandonment.
   - Include multiple payment options, including credit/debit cards, digital wallets, and other secure payment methods.
   - Provide a secure and user-friendly environment for entering personal and payment information.
4. **User Accounts**:
   - Offer the option for users to create accounts, which can store order history, shipping addresses, and payment preferences.
   - Implement a guest checkout option for users who prefer not to create an account.
5. **Search Functionality**:
   - Implement a robust search feature with filters and sorting options to help users find products quickly.
   - Include a search bar prominently on the website.

6. **Security**:
   - Ensure the website is secure, with SSL encryption to protect user data and transactions.
   - Comply with relevant data protection regulations (e.g., GDPR).
7. **Responsive Design**:
   - Make the website responsive to various screen sizes and devices, including mobile phones and tablets.
8. **Payment Gateway Integration**:
   - Integrate with a trusted payment gateway to process online payments securely.
9. **Shipping and Delivery**:
   - Provide accurate shipping cost calculations and estimated delivery times.
   - Allow users to track their orders.
   - Offer multiple shipping options.
10. **Reviews and Ratings**:
    - Allow customers to leave reviews and ratings for products, as this can influence purchase decisions.
    - Display reviews and ratings prominently on product pages.
11. **Inventory Management**:
    - Keep track of product availability and automatically update product listings when items are out of stock.
    - Send notifications to customers when items are back in stock.
12. **Returns and Refunds**:
    - Clearly outline your return and refund policy to build trust with customers.
    - Provide a simple process for initiating returns and refunds.
13. **Customer Support**:
    - Offer customer support through various channels, such as live chat, email, or a phone hotline.
    - Provide an FAQ section to address common queries.

FRONT END : HTML

BACK END   : MYSQL

PROGRAM:

```
<!DOCTYPE html>
<html>
<head>
    <title>OK Online Shopping - Personal Information</title>
</head>
<body bgcolor="pink">
    <h1>Personal Information</h1>
    <form action="checkout.php" method="post">
        <label for="name">Name:</label>
        <input type="text" id="name" name="name" required><br><br>


        <label for="address">Address:</label>
        <input type="text" id="address" name="address" required><br><br>


        <label for="email">Email:</label>
        <input type="email" id="email" name="email" required><br><br>


        <label for="phone">Phone:</label>
        <input type="tel" id="phone" name="phone"><br><br>


        <input type="submit" value="Continue to Checkout">
    </form>
```

```html
</body>

</html>

<!DOCTYPE html>

<html>

 <head>

<title>Sample E-commerce Website</title>

<style> /* Add your CSS styles here for layout and design */ </style>

</head> <body> <header> <h1>Welcome to Our Hobby House</h1> </header>

<section class="product">

 <img src="C:\Users\julie christie\Desktop\img1.jpg" alt="Bag 1"> <h2>Bag 1</h2> <p>

Description: This is product eco-friendly.</p><p>Rateing: 5*****</p>

 <p>Price: $10.00</p>

 <button>Add to Cart</button> </section> <section class="product">

<img src="C:\Users\julie christie\Desktop\img2.jpg" alt="Cup 2">

 <h2>Cup 2</h2>

 <p>Description: This product is made of fiber.</p>

<p>Rateing: 4****</p>

<p>Price: $15.00</p>

<button>Add to Cart</button> </section>

<!-- Repeat the product section for more products --> <footer> <p>

<!DOCTYPE html>

<html>

<head>

   <title>Simple Shopping Cart</title>

</head>

<body>
```

```html
<h1>Shopping Cart</h1>

<div id="cart">
  <h2>Your Cart</h2>
  <ul id="cart-items">
    <!-- Cart items will be displayed here -->
  </ul>
  <p>Total: $<span id="cart-total">0.00</span></p>
</div>

<div id="products">
  <h2>Products</h2>
  <ul>
    <li>
      <span>Product 1 - $10.00</span>
      <button onclick="addToCart('Product 1', 10.00)">Add to Cart</button>
    </li>
    <li>
      <span>Product 2 - $15.00</span>
      <button onclick="addToCart('Product 2', 15.00)">Add to Cart</button>
    </li>
    <!-- Add more products here -->
  </ul>
</div>
```

```
<script>
    var cart = []; // Array to store cart items

    var total = 0; // Total cart cost


    function addToCart(itemName, itemPrice) {

        cart.push({ name: itemName, price: itemPrice });

        total += itemPrice;

        updateCart();

    }


    function updateCart() {

        var cartItems = document.getElementById("cart-items");

        var cartTotal = document.getElementById("cart-total");


        // Clear the cart

        cartItems.innerHTML = "";


        // Populate the cart

        for (var i = 0; i < cart.length; i++) {

            var item = cart[i];

            var listItem = document.createElement("li");

            listItem.textContent = item.name + " - $" + item.price.toFixed(2);

            cartItems.appendChild(listItem);

        }


        // Update the total
```

```
            cartTotal.textContent = total.toFixed(2);

        }

    </script>

</body>

</html><!DOCTYPE html>

<html>

<head>

    <title>Online Shopping - Purchase Information</title>

    <style>

        /* Add CSS for styling */

        /* You can customize the styling as per your design requirements. */

    </style>

</head>

<body>



    <h2>Payment Information</h2>

    <form action="checkout.php" method="post">

        <label for="cardNumber">Credit Card Number:</label>

        <input type="text" id="cardNumber" name="cardNumber"
required><br><br>


        <label for="expirationDate">Expiration Date:</label>

        <input type="text" id="expirationDate" name="expirationDate"
required><br><br>


        <label for="cvv">CVV:</label>
```

```html
        <input type="text" id="cvv" name="cvv" required><br><br>

        <input type="submit" value="Complete Purchase">
    </form>
</body>
</html>
</p>
</footer>
 </body>
 </html>
```

OUTPUT :

Personal Information

Name: [ ]
Address: [ ]
Email: [ ]
Phone: [ ]
[Continue to Checkout]

Welcome to Our Hobby House

Bag 1

Description: This is product eco-friendly.

Rateing: 5*****

Price: $10.00

[Add to Cart]

Cup 2

Description: This product is made of fiber.

Rateing: 4****

Price: $15.00

[Add to Cart]

Shopping Cart

Your Cart

Total: $0.00

Products

- Product 1 - $10.00 [Add to Cart]
- Product 2 - $15.00 [Add to Cart]

Payment Information

Credit Card Number: [ ]
Expiration Date: [ ]
CVV: [ ]
[Complete Purchase]

CONCLUSION:

Creating an e-commerce website is a complex and dynamic process, and it demands a comprehensive understanding of the online retail landscape. In conclusion, developing an e-commerce website is a strategic endeavor that should encompass several key considerations.