

CLOUD APPLICATION AND DEVELOPMENT

PHASE 5 PROJECT

E-COMMERCE APPLICATION ON IBM CLOUD FOUNDRY

Describe the project's objectives, cloud application and development, platform development, and code implementation.

Project Objectives:

- The objective of this shopping cart website is to create a user-friendly online platform that enables users to browse and purchase a wide range of products, categorized from young to older individuals. The primary goals of this project include.
- Product Display: Present a diverse selection of products suitable for various age groups, making it easy for users to browse and find items of interest.
- Shopping Cart: Implement a shopping cart system that allows users to add products to their cart, view the cart's contents, and manage the items they intend to purchase.
- User-Friendly Interface: Create an intuitive and visually appealing user interface that ensures a seamless and enjoyable shopping experience.
- Total Calculation: Automatically calculate and display the total cost of the items in the user's cart, including any applicable taxes or shipping charges.
- Payment Processing: Enable users to make secure online payments, providing multiple payment options for convenience.
- User Accounts: Allow users to create accounts, manage their profiles, and track order history for a personalized experience.
- Responsive Design: Ensure the website is responsive, adapting to various screen sizes and devices, such as desktops, tablets, and mobile phones.

Cloud Application And Development :

- Responsive Design : Implemented responsive design using HTML and CSS to ensure seamless functionality across various devices.
- Cloud-Based Deployment (Cloud Technologies): Deploy the application using cloud services such as AWS, IBM scalability and accessibility.
- Push Notification: Engage users by sending timely updates and notifications using HTML and JavaScript.

- **Accessibility & Performance Optimization :** Ensure user accessibility and optimize performance across different devices and networks using HTML, CSS, and JavaScript techniques.

Platform Development:

Under the "Platform Development" title for a shopping cart application, focusing on HTML, CSS, JavaScript, and cloud technologies, the following points can be highlighted:

- ***Front-End Development*:** Utilizing HTML, CSS, and JavaScript to create an intuitive and responsive user interface for the shopping cart application.
- ***Responsive Design*:** Implementing techniques to ensure the shopping cart is mobile-friendly and works seamlessly across various devices and screen sizes.
- ***Client-Side Functionality*:** Leveraging JavaScript for interactive features, such as real-time updates, dynamic product listings, and user-friendly functionalities.
- ***Cloud Infrastructure Integration*:** Utilizing cloud technologies IBM cloud for scalable and reliable hosting, storage, and computing resources.
- ***Data Security*:** Implementing encryption protocols and secure communication practices to protect user data and transactions within the cloud environment.
- ***API Integration*:** Connecting the shopping cart platform with third-party APIs for payment gateways, shipping services, or other necessary integrations.
- ***Scalability and Performance Optimization*:** Leveraging cloud scalability features to accommodate increased traffic and optimizing application performance for faster loading times.
- ***Monitoring and Analytics*:** Implementing tools to monitor the application's performance, user interactions, and potential issues within the cloud environment.

Code Implementation:

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
<meta charset="UTF-8">
```

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

```
<title>Embroidery E-Commerce</title>
```

```
<style>
```

```
body, h1, h2, p, ul, li {
```

```
margin: 0;
```

```
padding: 0;
```

```
}
```

```
:root {
```

```
--primary-color: #efbbff;
```

```
--secondary-color: #8B5D33;
```

```
--accent-color: #660066;
```

```
--checkout-button-color: #660066;
```

```
}
```

```
body {
```

```
font-family: Arial, sans-serif;
```

```
background-color: var(--primary-color);
```

```
}
```

```
header {
```

```
background-color: var(--accent-color);
```

```
color: #fff;
```

```
padding: 1rem 0;
```

```
display: flex;
```

```
justify-content: space-between;
```

```
align-items: center;
```

```
}
```

```
header h1 {
font-size: 2rem;
margin-left: 2rem;
}
nav ul {
list-style: none;
display: flex;
}
nav ul li {
margin-right: 20px;
}
nav ul li a {
text-decoration: none;
color: #fff;
font-weight: bold;
}
section {
padding: 2rem;
}section h2 {
color: var(--accent-color);
}
.product-gallery {
display: flex;
flex-wrap: wrap;
justify-content: space-between;
}
.product {
```

```
background-color: #fff;
border: 1px solid #ddd;
padding: 20px;
margin: 10px;
text-align: center;
width: 300px;
}

.product img {
max-width: 100%;
height: 200px;
}

.product h3 {
color: var(--accent-color);
font-size: 1.2rem;
}

.product p {
color: var(--secondary-color);
font-weight: bold;
}

.product button {
background-color: var(--accent-color);
color: #fff;
border: none;
padding: 10px 20px;
margin-top: 10px;
cursor: pointer;
}
```

```
.cart-items {
border: 1px solid #ddd;
padding: 20px;
background-color: #fff;
margin: 10px 0;
}

.checkout-button {
background-color: var(--checkout-button-color);
color: #fff;
border: none;
padding: 10px 20px;
margin-top: 10px;
cursor: pointer;
}

footer {
background-color: var(--accent-color);
color: #fff;
text-align: center;
padding: 1rem 0;
}

</style>

</head>

<body>

<header>

<h1>Welcome to Embroidery Marketplace</h1>

<nav>

<ul>
```

```
<li><a href="signin.html">Sign in</a></li>
<li><a href="#home">Home</a></li>
<li><a href="#products">Product<li><a href="#cart">Cart</a></li>
</ul>
</nav>
</header>
<section id="home">
<h2>Discover Exquisite Embroidery Creations</h2>
<p>Explore our collection of hand-made Embroidery products.</p>
</section>
<section id="products">
<h2>Featured Embroidered Products</h2>
<div class="product-gallery">
<div class="product">

<h3>Embroidered Dresses for Boys</h3>
<p>₹1500.00</p>
<button>Add to Cart</button>
</div>
<div class="product">

<h3>Embroidered Dresses for Girls</h3>
<p>₹2000.00</p>
<button>Add to Cart</button>
</div>
<div class="product">

```

<h3>Embroidered Dresses for Men</h3>

<p>₹5000.00</p>

<button>Add to Cart</button>

</div>

<div class="product">

<h3>Embroidered Dresses for Women</h3>

<p>₹15000.00</p>

<button>Add to Cart</button>

</div>

<div class="product">

<h3>Embroidered Dresses for Women</h3>

<p>₹3000.00</p>

<button>Add to Cart</button>

</div>

<div class="product">

Embroidered Dresses for Boys</h3>

<p>₹1999.00</p>

<button>Add to Cart</button>

</div>

<div class="product">

<h3>Embroidered Dresses for Girls</h3>


```
<p>₹999.00</p>
<button>Add to Cart</button>
</div>
<div class="product">
  
  <h3>Embroidered Dresses for Boys</h3>
  <p>₹2500.00</p>
  <button>Add to Cart</button>
</div>
</div>
</section>
<section id="cart">
  <h2>Your Embroidery Shopping Cart</h2>
  <div class="cart-items">
    <p>Cart is Empty!</p>
  </div>
  <p>Total: ₹0[Total Amount]</p>
  <button class="checkout-button">Proceed to Checkout</button>
</section>
<footer>
  <p>&copy; 2023 Embroidery Marketplace. All rights reserved.</p>
</footer>
<script>
const addToCartButtons = document.querySelectorAll('.product
button');
const cartItemsContainer = document.querySelector('.cart-items');
addToCartButtons.forEach(button => {
button.addEventListener('click', () => {
```

```

const product = button.parentElement;
const productName = product.querySelector('h3').textContent;
//const productPrice =
parseFloat(product.querySelector('p').textContent.slice())
const priceText = product.querySelector('p').textContent;
const price = parseFloat(priceText.replace('₹', '').replace(',', ''));
const cartItem = document.createElement('div');
cartItem.classList.add('cart-item');
cartItem.innerHTML =
<p>${productName}</p>
<p>${price.toFixed(2)}</p>
<button class="remove-item">Remove</button>
`;
cartItemsContainer.appendChild(cartItem);
// Calculate and display updated total
const cartTotal = document.querySelector('#cart p');
const currentTotal = parseFloat(cartTotal.textContent.slice(7));
const newTotal = currentTotal + price;
cartTotal.textContent = `Total: ${newTotal.toFixed(2)} `;
});cartItemsContainer.addEventListener('click', event =>
{
if (event.target.classList.contains('remove-item'))
{
const cartItem = event.target.parentElement;
const itemPrice =
parseFloat(cartItem.querySelector('p:nth-child(2)').textContent)
const cartTotal = document.querySelector('#cart p');
const currentTotal = parseFloat(cartTotal.textContent.slice(7));

```

```
const newTotal = currentTotal - itemPrice;
cartTotal.textContent = `Total: RS${newTotal.toFixed(2)}`;
cartItem.remove();
}
});
</script>
</body>
</html>
```

OUTPUT:

Login Form

Login

Signup

Email Address

Password

[Forgot password?](#)

Login

Not a member? [Signup now](#)


Welcome to Embroidery Marketplace

[Sign In](#) [Home](#) [Products](#) [Cart](#)

Discover Exquisite Embroidery Creations

Explore our collection of hand-made Embroidery products.


Featured Embroidered Products



Embroidered Dresses for Boys

₹1500.00


[Add to Cart](#)



Embroidered Dresses for Girls

₹2000.00

[Add to Cart](#)



Embroidered Dresses for Men

₹5000.00

[Add to Cart](#)



Embroidered Dresses for Girls

₹999.00

Add to Cart



Embroidered Dresses for Boys

₹2500.00

Add to Cart

Your Embroidery Shopping Cart

Cart is Empty!

Total: ₹0[Total Amount]

Proceed to Checkout

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Embroidered Dresses for Girls

₹999.00

Add to Cart

Embroidered Dresses for Boys

₹2500.00

Add to Cart

Your Embroidery Shopping Cart

Total: 2
Embroidered Dresses for Girls
\$999.00
Remove
Embroidered Dresses for Boys
\$2500.00
Remove

Total: 3999

Proceed to Checkout

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