

SRI SHANMUGHA COLLEGE OF ENGINEERING AND TECHNOLOGY

COLLEGE CODE : 7327

DOMAIN: CLOUD COMPUTING

TEAM MEMBERS

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Introduction

Creating an e-commerce application on the cloud is a transformative journey that leverages the power of cloud computing to build, host, and manage an online platform for buying and selling goods and services. In this digital age, e-commerce has become an essential channel for businesses to reach a global customer base, and the cloud offers a flexible and scalable environment to make this a reality.

Creating a E- commerce applications on cloud foundry

•SET UP CLOUD FOUNDRY:

Ensure you have access to a Cloud Foundry environment. You can use a platform like IBM Cloud, Pivotal Web Services, or SAP Cloud Platform, all of which support Cloud Foundry.

•SELECT A PROGRAMMING LANGUAGE:

Choose a programming language and framework for your e-commerce application. Popular choices include Java (using Spring Boot), Node.js, or Ruby on Rails.

•DATABASE:

Decide on a database for your application. Cloud Foundry supports various databases like PostgreSQL, MySQL, and MongoDB. You can choose the one that best fits your needs.

- APPLICATION DEVELOPMENT:**

Develop your e-commerce application using the selected language and framework. Ensure that it includes features like product listings, shopping cart, user authentication, and payment processing.

- CONTAINERIZATION :**

Containerize your application using Docker. This allows you to package your application and its dependencies into a container image.

- CLOUD FOUNDRY MANIFEST:**

Create a Cloud Foundry manifest file that specifies details about your application, including the runtime, memory, and services it requires.

- PUSH TO CLOUD FOUNDRY:**

Use the Cloud Foundry command-line interface (cf CLI) to push your application to the Cloud Foundry platform. This will make your application accessible on the cloud.

- SERVICE INTEGRATION:**

Integrate any necessary services like payment gateways, caching, or CDN services. You can use Cloud Foundry's marketplace to add and bind these services to your app.

- SCALING:**

Configure auto-scaling and load balancing to ensure your e-commerce application can handle varying levels of traffic.

- MONITORING AND LOGGING :**

Set up monitoring and logging to keep an eye on the health and performance of your application. Cloud Foundry often provides tools and integrations for this purpose.

- SECURITY:**

Implement security best practices, including data encryption, secure authentication, and protection against common web application vulnerabilities like cross-site scripting (XSS) and SQL injection.

- CONTINUOUS INTEGRATION AND DEPLOYMENT(CI/CD):**

Implement CI/CD pipelines to automate the deployment process and ensure that updates are rolled out seamlessly.

- TESTING:**

Thoroughly test your e-commerce application to ensure it functions correctly and securely.

- BACKUP AND DISASTER RECOVERY:**

Implement backup and disaster recovery solutions to protect your data and ensure business continuity.

TECHNOLOGY STACK:

Choose a technology stack that supports real-time features. This might include a combination of are us follows:

BACKEND FRAMEWORK:

Node.js with frameworks like Express.js or Nest.js, or other real-time capable languages and frameworks. Frontend Framework: A modern JavaScript framework like React, Angular, or Vue.js.

•DOMAIN SETUP:

Configure your domain and DNS settings to point to your e-commerce application on Cloud Foundry

•LUNCH AND MONITOR:

Finally, launch your e-commerce application and continuously monitor its performance, making necessary optimizations as needed.

SOURCE CODE

```
<!DOCTYPE html>  
<html lang="zxx">
```

```
<head>
```

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

```
  <meta name="description" content="Male_Fashion Template">
```

```
  <meta name="keywords" content="Male_Fashion, unica, creative, html">
```

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

```
  <meta http-equiv="X-UA-Compatible" content="ie=edge">
```

```
  <title>Men's Fashion </title>
```

```
  <!-- Google Font -->
```

```
  <link href="https://fonts.googleapis.com/css2?  
family=Nunito+Sans:wght@300;400;600;700;800;900&display=swap"  
rel="stylesheet">
```


<!-- Css Styles -->

<link rel="stylesheet" href="css/bootstrap.min.css" type="text/css">

<link rel="stylesheet" href="css/font-awesome.min.css" type="text/css">

<link rel="stylesheet" href="css/elegant-icons.css" type="text/css">

<link rel="stylesheet" href="css/magnific-popup.css" type="text/css">

<link rel="stylesheet" href="css/nice-select.css" type="text/css">

<link rel="stylesheet" href="css/owl.carousel.min.css" type="text/css">

<link rel="stylesheet" href="css/slicknav.min.css" type="text/css">

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

</head>

<body>

<!-- Page Preloder -->

<div id="preloder">

<div class="loader"></div>

</div>

<!-- Offcanvas Menu Begin -->

<div class="offcanvas-menu-overlay"></div>

<div class="offcanvas-menu-wrapper">

</div>

<!-- Offcanvas Menu End -->

<!-- Header Section Begin -->

<header class="header">

<div class="container">

<div class="row">

<div class="col-lg-3 col-md-3">

<div class="header__logo">

</div>

</div>

```
<div class="col-lg-6 col-md-6">
  <nav class="header__menu mobile-menu">
    <ul>
      <li><a href="./index.html">Home</a></li>
      <li class="active"><a href="#">Login</a></li>
      <li class="active"><a href="./shop.html">Shop</a></li>

    </li>
    </ul>
  </nav>
</div>
<div class="col-lg-3 col-md-3">
  <div class="header_nav_option">
    <a href="#" class="search-switch"></a>
    <a href="#"></a>
    <a href="#"> <span>0</span></a>
    <div class="price">$0.00</div>
  </div>
```

</div>

</div>

<div class="canvas__open"><i class="fa fa-bars"></i></div>

</div>

</header>

<!-- Header Section End -->

<!-- Breadcrumb Section Begin -->

<!-- Breadcrumb Section End -->

<!-- Shop Section Begin -->

<section class="shop spad">

<div class="container">

<div class="row">

<div class="col-lg-3">

</div>

```
<div class="col-lg-9">
  <div class="shop_product_option">
    <div class="row">
      <div class="col-lg-6 col-md-6 col-sm-6">
        <div class="shop_productoption_left">
          <p>Showing 1-12 of 126 results</p>
        </div>
      </div>
      <div class="col-lg-6 col-md-6 col-sm-6">
        <div class="shop_productoption_right">
          <p>Sort by Price:</p>
          <select>
            <option value="">Low To High</option>
            <option value="">$0 - $55</option>
            <option value="">$55 - $100</option>
          </select>
        </div>
      </div>
    </div>
  </div>
</div>
```


</div>

</div>

<div class="row">

<div class="col-lg-4 col-md-6 col-sm-6">

<div class="product__item">

<div class="product_item_pic set-bg" data-setbg="img/product/product-2.jpg">

<ul class="product__hover">

 Compare

</div>

<div class="product_item_text">

<h6>Piqué Biker Jacket</h6>

+ Add To Cart

<div class="rating">

```
<i class="fa fa-star-o"></i>
<i class="fa fa-star-o"></i>
<i class="fa fa-star-o"></i>
<i class="fa fa-star-o"></i>
<i class="fa fa-star-o"></i>
</div>
<h5>$67.24</h5>
<div class="product_color_select">
<label for="pc-4">
<input type="radio" id="pc-4">
</label>
<label class="active black" for="pc-5">
<input type="radio" id="pc-5">
</label>
<label class="grey" for="pc-6">
<input type="radio" id="pc-6">
</label>
</div>
```

</div>

</div>

</div>

<div class="col-lg-4 col-md-6 col-sm-6">

<div class="product__item sale">

<div class="product_item_pic set-bg" data-setbg="img/product/product-3.jpg">

Sale

<ul class="product__hover">

 Compare

</div>

<div class="product_item_text">

<h6>Multi-pocket Chest Bag</h6>

+ Add To Cart

```
<div class="rating">
  <i class="fa fa-star"></i>
  <i class="fa fa-star"></i>
  <i class="fa fa-star"></i>
  <i class="fa fa-star"></i>
  <i class="fa fa-star-o"></i>
</div>
<h5>$43.48</h5>
<div class="product_color_select">
  <label for="pc-7">
    <input type="radio" id="pc-7">
  </label>
  <label class="active black" for="pc-8">
    <input type="radio" id="pc-8">
  </label>
  <label class="grey" for="pc-9">
    <input type="radio" id="pc-9">
  </label>
```

</div>

</div>

</div>

</div>

<div class="col-lg-4 col-md-6 col-sm-6">

<div class="product__item">

<div class="product_item_pic set-bg" data-setbg="img/product/product-4.jpg">

<ul class="product__hover">

 Compare

</div>

<div class="product_item_text">

<h6>Diagonal Textured Cap</h6>

+ Add To Cart


```
<div class="rating">
  <i class="fa fa-star-o"></i>
  <i class="fa fa-star-o"></i>
  <i class="fa fa-star-o"></i>
  <i class="fa fa-star-o"></i>
  <i class="fa fa-star-o"></i>
</div>
<h5>$60.9</h5>
<div class="product_color_select">
  <label for="pc-10">
    <input type="radio" id="pc-10">
  </label>
  <label class="active black" for="pc-11">
    <input type="radio" id="pc-11">
  </label>
  <label class="grey" for="pc-12">
    <input type="radio" id="pc-12">
  </label>
```

</div>

</div>

</div>

</div>

<div class="col-lg-4 col-md-6 col-sm-6">

<div class="product__item sale">

<div class="product_item_pic set-bg" data-setbg="img/product/product-6.jpg">

Sale

<ul class="product__hover">

 Compare

</div>

<div class="product_item_text">

<h6>Ankle Boots</h6>

+ Add To Cart

<div class="rating">

<i class="fa fa-star"></i>

<i class="fa fa-star"></i>

<i class="fa fa-star"></i>

<i class="fa fa-star"></i>

<i class="fa fa-star-o"></i>

</div>

<h5>\$98.49</h5>

<div class="product_color_select">

<label for="pc-16">

<input type="radio" id="pc-16">

</label>

<label class="active black" for="pc-17">

<input type="radio" id="pc-17">

</label>

```
<label class="grey" for="pc-18">
<input type="radio" id="pc-18">
</label>
</div>
</div>
</div>
</div>
<div class="col-lg-4 col-md-6 col-sm-6">
<div class="product__item">
<div class="product_item_pic set-bg" data-setbg="img/product/product-
7.jpg">
<ul class="product__hover">
<li><a href="#"></a></li>
<li><a href="#">
<span>Compare</span></a>
</li>
```

```
<li><a href="#"></a></li>
</ul>
</div>
<div class="product_item_text">
<h6>T-shirt Contrast Pocket</h6>
<a href="#" class="add-cart">+ Add To Cart</a>
<div class="rating">
<i class="fa fa-star-o"></i>
<i class="fa fa-star-o"></i>
<i class="fa fa-star-o"></i>
<i class="fa fa-star-o"></i>
<i class="fa fa-star-o"></i>
</div>
<h5>$49.66</h5>
<div class="product_color_select">
<label for="pc-19">
```



```
<input type="radio" id="pc-19">
</label>
<label class="active black" for="pc-20">
<input type="radio" id="pc-20">
</label>
<label class="grey" for="pc-21">
<input type="radio" id="pc-21">
</label>
</div>
</div>
</div>
</div>
<div class="col-lg-4 col-md-6 col-sm-6">
<div class="product__item">
<div class="product_item_pic set-bg" data-setbg="img/product/product-
8.jpg">
```

```
<ul class="product__hover">
  <li><a href="#"></a></li>
  <li><a href="#">
<span>Compare</span></a>
</li>
<li><a href="#"></a></li>
</ul>
</div>
```

```
<div class="product_item_text">
<h6>Basic Flowing Scarf</h6>
<a href="#" class="add-cart">+ Add To Cart</a>
<div class="rating">
<i class="fa fa-star-o"></i>
<i class="fa fa-star-o"></i>
<i class="fa fa-star-o"></i>
<i class="fa fa-star-o"></i>
<i class="fa fa-star-o"></i>
```

</div>

<h5>\$26.28</h5>

<div class="product_color_select">

<label for="pc-22">

<input type="radio" id="pc-22">

</label>

<label class="active black" for="pc-23">

<input type="radio" id="pc-23">

</label>

<label class="grey" for="pc-24">

<input type="radio" id="pc-24">

</label>

</div>

</div>

</div>

</div>

```
<div class="col-lg-4 col-md-6 col-sm-6">
  <div class="product__item">
    <div class="product_item_pic set-bg" data-setbg="img/product/product-
9.jpg">
      <ul class="product__hover">
        <li><a href="#"></a></li>
        <li><a href="#">
<span>Compare</span></a>
</li>
        <li><a href="#"></a></li>
      </ul>
    </div>
    <div class="product_item_text">
      <h6>Piqué Biker Jacket</h6>
      <a href="#" class="add-cart">+ Add To Cart</a>
      <div class="rating">
```

<i class="fa fa-star-o"></i>

<i class="fa fa-star-o"></i>

<i class="fa fa-star-o"></i>

<i class="fa fa-star-o"></i>

<i class="fa fa-star-o"></i>

</div>

<h5>\$67.24</h5>

<div class="product_color_select">

<label for="pc-25">

<input type="radio" id="pc-25">

</label>

<label class="active black" for="pc-26">

<input type="radio" id="pc-26">

</label>

<label class="grey" for="pc-27">

<input type="radio" id="pc-27">

</label>

</div>

</div>

</div>

</div>

<div class="col-lg-4 col-md-6 col-sm-6">

<div class="product__item sale">

<div class="product_item_pic set-bg" data-setbg="img/product/product-10.jpg">

Sale

<ul class="product__hover">

Compare

</div>

```
<div class="product_item_text">
<h6>Multi-pocket Chest Bag</h6>
<a href="#" class="add-cart">+ Add To Cart</a>
<div class="rating">
<i class="fa fa-star"></i>
<i class="fa fa-star"></i>
<i class="fa fa-star"></i>
<i class="fa fa-star"></i>
<i class="fa fa-star-o"></i>
</div>
<h5>$43.48</h5>
<div class="product_color_select">
<label for="pc-28">
<input type="radio" id="pc-28">
</label>
<label class="active black" for="pc-29">
```

```
<input type="radio" id="pc-29">
</label>
<label class="grey" for="pc-30">
<input type="radio" id="pc-30">
</label>
</div>
</div>
</div>
</div>
<div class="col-lg-4 col-md-6 col-sm-6">
<div class="product__item">
<div class="product_item_pic set-bg" data-setbg="img/product/product-
11.jpg">
<ul class="product__hover">
<li><a href="#"></a></li>
<li><a href="#">
```

```
<span>Compare</span></a>
```

```
</li>
```

```
<li><a href="#"></a></li>
```

```
</ul>
```

```
</div>
```

```
<div class="product_item_text">
```

```
<h6>Diagonal Textured Cap</h6>
```

```
<a href="#" class="add-cart">+ Add To Cart</a>
```

```
<div class="rating">
```

```
<i class="fa fa-star-o"></i>
```

```
<i class="fa fa-star-o"></i>
```

```
<i class="fa fa-star-o"></i>
```

```
<i class="fa fa-star-o"></i>
```

```
<i class="fa fa-star-o"></i>
```

```
</div>
```

```
<h5>$60.9</h5>
```

```
<div class="product_color_select">
<label for="pc-31">
<input type="radio" id="pc-31">
</label>
<label class="active black" for="pc-32">
<input type="radio" id="pc-32">
</label>
<label class="grey" for="pc-33">
<input type="radio" id="pc-33">
</label>
</div>
</div>
</div>
</div>
<div class="col-lg-4 col-md-6 col-sm-6">
<div class="product__item sale">
```



```
<div class="product_item_pic set-bg" data-setbg="img/product/product-12.jpg">
```

```
<span class="label">Sale</span>
```

```
<ul class="product__hover">
```

```
<li><a href="#"></a></li>
```

```
<li><a href="#">
```

```
<span>Compare</span></a>
```

```
</li>
```

```
<li><a href="#"></a></li>
```

```
</ul>
```

```
</div>
```

```
<div class="product_item_text">
```

```
<h6>Ankle Boots</h6>
```

```
<a href="#" class="add-cart">+ Add To Cart</a>
```

```
<div class="rating">
```

```
<i class="fa fa-star"></i>
```

```
<i class="fa fa-star"></i>
<i class="fa fa-star"></i>
<i class="fa fa-star"></i>
<i class="fa fa-star-o"></i>
</div>
<h5>$98.49</h5>
<div class="product_color_select">
<label for="pc-34">
<input type="radio" id="pc-34">
</label>
<label class="active black" for="pc-35">
<input type="radio" id="pc-35">
</label>
<label class="grey" for="pc-36">
<input type="radio" id="pc-36">
</label>
```

</div>

</div>

</div>

</div>

<div class="col-lg-4 col-md-6 col-sm-6">

<div class="product__item">

<div class="product_item_pic set-bg" data-setbg="img/product/product-13.jpg">

<ul class="product__hover">

Compare

</div>

```
<div class="product_item_text">
<h6>T-shirt Contrast Pocket</h6>
<a href="#" class="add-cart">+ Add To Cart</a>
<div class="rating">
<i class="fa fa-star-o"></i>
<i class="fa fa-star-o"></i>
<i class="fa fa-star-o"></i>
<i class="fa fa-star-o"></i>
<i class="fa fa-star-o"></i>
</div>
<h5>$49.66</h5>
<div class="product_color_select">
<label for="pc-37">
<input type="radio" id="pc-37">
</label>
<label class="active black" for="pc-38">
```

```
<input type="radio" id="pc-38">
</label>
<label class="grey" for="pc-39">
<input type="radio" id="pc-39">
</label>
</div>
</div>
</div>
</div>
<div class="col-lg-4 col-md-6 col-sm-6">
<div class="product__item">
<div class="product_item_pic set-bg" data-setbg="img/product/product-
14.jpg">
<ul class="product__hover">
<li><a href="#"></a></li>
<li><a href="#">
```


Compare

</div>

<div class="product_item_text">

<h6>Basic Flowing Scarf</h6>

+ Add To Cart

<div class="rating">

<i class="fa fa-star-o"></i>

<i class="fa fa-star-o"></i>

<i class="fa fa-star-o"></i>

<i class="fa fa-star-o"></i>

<i class="fa fa-star-o"></i>

</div>

<h5>\$26.28</h5>

```
<div class="product_color_select">  
  <label for="pc-40">  
    <input type="radio" id="pc-40">  
  </label>  
  <label class="active black" for="pc-41">  
    <input type="radio" id="pc-41">  
  </label>  
  <label class="grey" for="pc-42">  
    <input type="radio" id="pc-42">  
  </label>  
</div>  
</div>  
</div>  
</div>  
</div>  
<div class="row">
```

</div>

</div>

</div>

</div>

</section>

<!-- Shop Section End -->

<!-- Footer Section Begin -->

<!-- Footer Section End -->

<!-- Js Plugins -->

<script src="js/jquery-3.3.1.min.js"></script>

<script src="js/bootstrap.min.js"></script>

<script src="js/jquery.nice-select.min.js"></script>

<script src="js/jquery.nicescroll.min.js"></script>

<script src="js/jquery.magnific-popup.min.js"></script>

```
<script src="js/jquery.countdown.min.js"></script>  
<script src="js/jquery.slicknav.js"></script>  
<script src="js/mixitup.min.js"></script>  
<script src="js/owl.carousel.min.js"></script>  
<script src="js/main.js"></script>  
</body>  
  
</html>
```

The code is a static front-end representation of a basic E-Commerce Store.

To make it functional for actual e-commerce purposes, we would need to implement server-side logic for managing the shopping cart, handling payments, and interacting with a backend system or database to keep track of products and user orders.

CONCLUSION

In conclusion, creating an e-commerce application on the cloud is a strategic and efficient way to establish and operate an online store. It offers several advantages, including scalability, cost-efficiency, and flexibility