

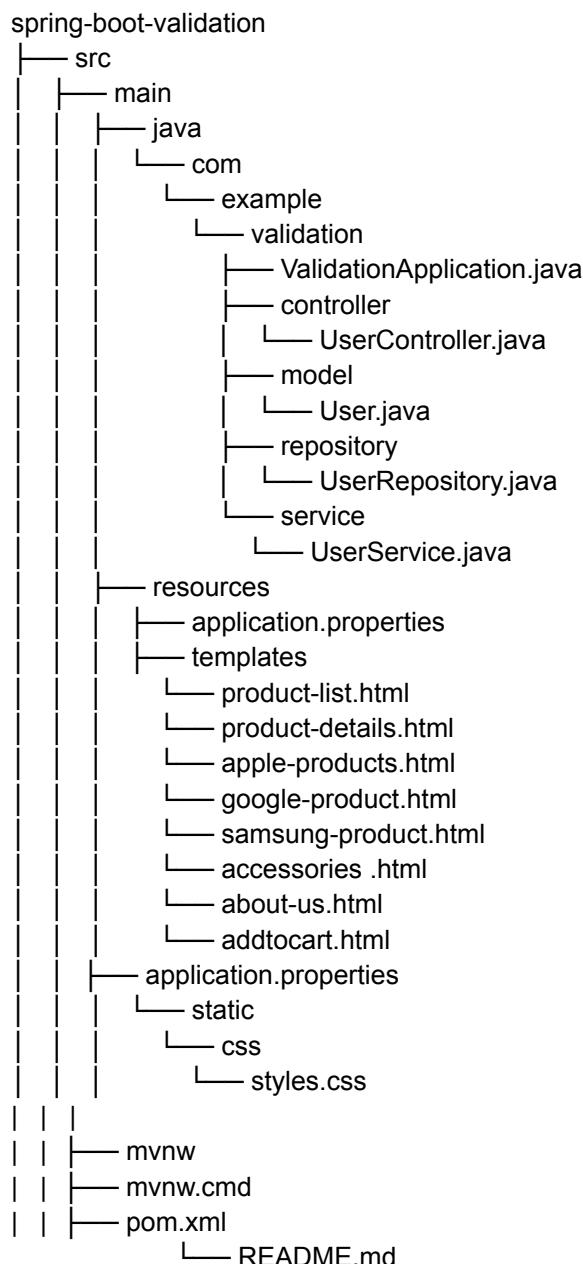
Spring Boot ECommerce Application: A Comprehensive Online Shopping Solution

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Project-map



Product Controller

```
package com.example.ecomercever20.controller;
import com.example.ecomercever20.model.Product;
import com.example.ecomercever20.service.ProductService;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.ui.Model;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.ModelAttribute;
import org.springframework.web.bind.annotation.PathVariable;
```

```

import org.springframework.web.bind.annotation.PostMapping;
import java.util.List;
@Controller
public class ProductController {
    @Autowired
    private ProductService productService;
    @GetMapping("/products")
    public String showProductList(Model model) {
        List<Product> products = productService.getAllProducts();
        model.addAttribute("products", products);
        return "product-list";
    }
    @GetMapping("/products/{id}")
    public String getProductById(@PathVariable Long id, Model model) {
        Product product = productService.getProductById(id).orElse(null);
        List<Product> recommendations = productService.getRecommendations(id);
        model.addAttribute("product", product);
        model.addAttribute("recommendations", recommendations);
        return "product-details"; // Render the product-details.html template
    }
    @GetMapping("/products/brand/{brand}")
    public String getProductsByBrand(@PathVariable String brand, Model model) {
        List<Product> products = productService.getProductsByBrand(brand);
        model.addAttribute("products", products);
        model.addAttribute("brand", brand);
        return "product-list"; // Reuse product-list.html template
    }
    // Display accessories by brand
    @GetMapping("/products/brand/{brand}/accessories")
    public String getAccessoriesByBrand(@PathVariable String brand, Model model) {
        List<Product> accessories = productService.getAccessoriesForProduct(brand);
        model.addAttribute("products", accessories);
        model.addAttribute("brand", brand);
        model.addAttribute("category", "accessories");
        return "product-list"; // Reuse product-list.html template
    }
    @GetMapping("/brands/apple")
    public String getAppleProducts(Model model) {
        List<Product> products = productService.getProductsByBrand("Apple"); // Fetch only Apple products
        model.addAttribute("products", products);
        model.addAttribute("brand", "Apple");
        return "apple-products"; // Return apple-products.html template
    }
    @GetMapping("/brands/samsung")
    public String getSamsungProducts(Model model) {
        List<Product> products = productService.getProductsByBrand("Samsung");
        model.addAttribute("products", products);
        model.addAttribute("brand", "Samsung");
        return "samsung-products";
    }
    @GetMapping("/brands/google")
    public String getGoogleProducts(Model model) {

```

```

List<Product> products = productService.getProductsByBrand("Google"); // Fetch only Apple products
model.addAttribute("products", products);
model.addAttribute("brand", "Google");
return "google-products";
}
@GetMapping("/accessories")
public String getOthersProducts(Model model) {
    List<Product> products = productService.getProductsByBrand("Others");
    model.addAttribute("products", products);
    model.addAttribute("brand", "Others");
    return "accessories";
}
@GetMapping("/about-us")
public String showAboutUsPage() {
    return "about-us";
}
@GetMapping("/addtocart/{idv}")
public String showAddToCart(Model model) {
    List<Product> products = productService.getAddtocart("add");
    double totalPrice = productService.calculateTotalPrice(products);
    model.addAttribute("products", products);
    model.addAttribute("totalPrice", totalPrice);
    return "addtocart"; // Return the addtocart template
}
}

```

product Service

```

package com.example.ecommercever20.service;
import com.example.ecommercever20.model.Product;
import com.example.ecommercever20.repository.ProductRepository;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import java.util.List;
import java.util.Optional;
@Service
public class ProductService {
    @Autowired
    private ProductRepository productRepository;
    public List<Product> getAllProducts() {
        return productRepository.findAll();
    }
    // Get a product by its ID
    public Optional<Product> getProductById(Long id) {
        return productRepository.findById(id);
    }
    // Get products by brand
    public List<Product> getProductsByBrand(String brand) {
        return productRepository.findByBrand(brand);
    }
    public List<Product> getAccessoriesForProduct(String brand) {

```

```

        return productRepository.findByBrandAndCategory(brand, "accessory");
    }
    public List<Product> getRecommendations(Long productId) {
        Optional<Product> product = productRepository.findById(productId);
        if (product.isPresent()) {
            String category = product.get().getCategory();
            return productRepository.findByCategory(category);
        }
        return List.of();
    }
    public List<Product> getAddtocart(String addtocart) {
        return productRepository.findByAddtocart(addtocart);
    }
    public double calculateTotalPrice(List<Product> products) {
        double total = 0.0;
        for (Product product : products) {
            total += Double.parseDouble(product.getPrice());
        }
        return total;
    }
}

```

Product Repository

```

package com.example.ecommercever20.repository;
import com.example.ecommercever20.model.Product;
import org.springframework.data.jpa.repository.JpaRepository;
import java.util.List;
public interface ProductRepository extends JpaRepository<Product, Long> {

    List<Product> findByBrand(String brand);

    List<Product> findByBrandAndCategory(String brand, String category);

    List<Product> findByCategory(String category);
    List<Product> findByAddtocart(String addtocart);
}

```

Styles.css

```

body {
    font-family: 'Roboto', sans-serif;
    margin: 0;
    padding: 0;
}
header {
    background: #333;
    color: #fff;
    padding: 10px 0;
    text-align: center;
}

```

```
}

nav ul {
    list-style: none;
    padding: 0;
}
nav ul li {
    display: inline;
    margin: 0 15px;
}
nav ul li a {
    color: #fff;
    text-decoration: none;
}
.container {
    width: 80%;
    margin: 20px auto;
}
.product-details {
    display: flex;
    align-items: center;
    margin-bottom: 20px;
}
.product-details img {
    max-width: 300px;
    margin-right: 20px;
}
.product-info {
    flex: 1; /* Allow this div to take up the remaining space */
}
.product-info p {
    margin: 5px 0; /* Space between description and price */
}
.product-list {
    list-style: none;
    padding: 0;
}
.product-card {
    border: 1px solid #ddd;
    padding: 15px;
    margin: 15px 0;
    display: flex;
    flex-direction: column;
    align-items: center;
}
.price {
    font-weight: bold;
}
.btn {
    background-color: #007bff;
    color: #fff;
    padding: 10px 15px;
    text-decoration: none;
}
```

```

border: none;
border-radius: 5px;
cursor: pointer;
margin-top: 20px;
margin-bottom: 20px;
}
div.scroll-container {
background-color: #333;
overflow: auto;
white-space: nowrap;
padding: 10px;
}
.btn:hover {
background-color: #0056b3;
}
.carousel-item img {
object-fit: cover;
width: 100%;
height: 400px;
}
.buy-now{
margin-top: 20px;
}
.image-boundary{
margin-right: 20px;
}
.center-heading {
text-align: center;
}
.btn {
background-color: #007bff;
color: #fff;
padding: 10px 15px;
text-decoration: none;
border: none;
border-radius: 5px;
margin-right: 10px;
}
.btn:last-child {
margin-right: 0;
}

```

Product Layout: The image is on the left side and the title, price, and description are aligned to the right.

Footer: Includes navigation links to various parts of the site and copyright information.

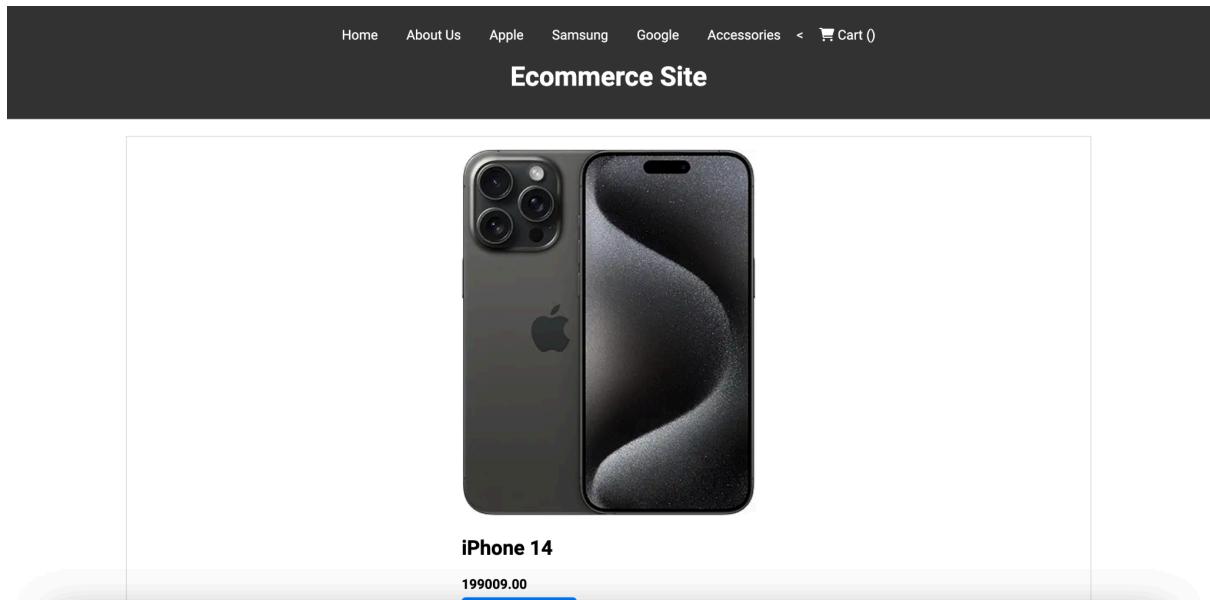
Simple and Elegant: The design uses neutral colors, lots of white space, and clean fonts for a modern, minimalist look.

Project overview

Product-list.html

This page is the index page of the ecommerce website, Where all the products including both smartphone and accessories are showcased including products and accessories in a single page.

This is the showcase of the product in product-list.html





Samsung Galaxy S22

79899.00

[View Details](#)

-Samsung galaxy 22 displayed in product-list page



Google Pixel 7

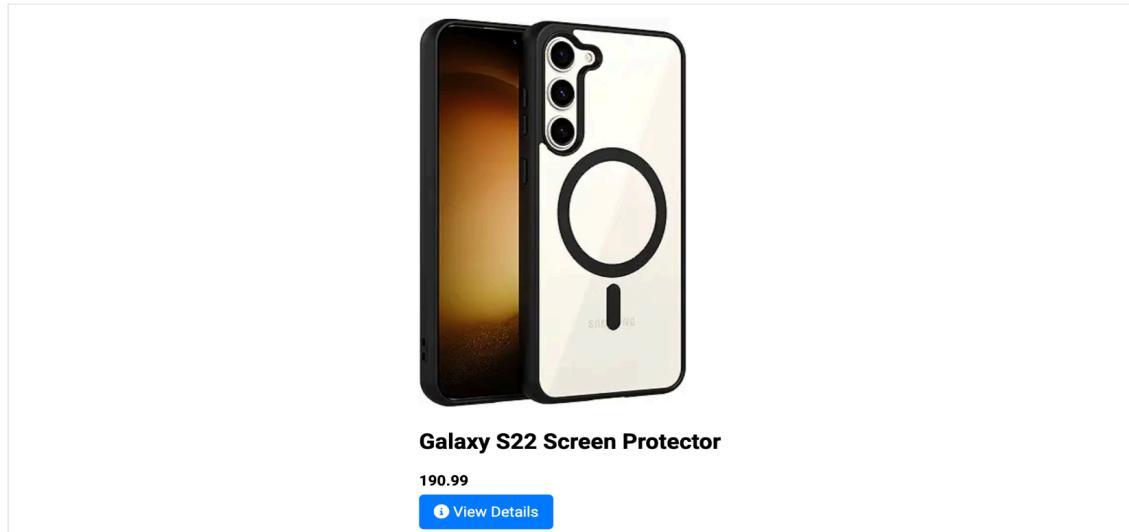
69999.99

[View Details](#)

-Google pixel 7 displayed in product-list page



-Iphone 14 case displayed in product-list page



-Galaxy s22 screen protector displayed in product-list page



Wireless Charger

479.99

[View Details](#)

-Wireless charger displayed in product-list page

Product-detail.html

In this page, each product which is been chosen by the user by clicking the view detail will go into this page and show the product in maximum detail by showing the price, description and mainly recommendation of the chosen product.



Apple Products

• iPhone 14



-iphone 14 showed in the product-detail page

From the above screenshot where all dimensions of the iPhone 14 is shown with a scrolling option where the user can see the smartphone in the detail format in multiple dimensions.

Some other screenshots from the product-detail web page

. iPhone 14



product description

Latest Apple iPhone with A15 chip. -material 🌟: Crafted from aerospace-grade titanium, the iPhone 15 Pro Max is both strong and lightweight, making it the lightest Pro model Apple has ever produced.

-iphone 14 with description

In the above image where along with scrolling image setup, product description is also given where it is enclosed with emoji for quick assumption of the product and specification especially in the flagship of the products.

. Samsung Galaxy S22

product images



product description

Powerful Android smartphone with Exynos processor. Display 📱: Size: 6.8 inches Dynamic AMOLED 2X. Resolution: 1440 x 3088 pixels, providing a pixel density of approximately 500 ppi. Refresh Rate: Supports a smooth 120 Hz refresh rate for enhanced scrolling and responsiveness. Brightness: Peak brightness of up to 1750 nits, ensuring visibility in bright conditions. Protection: Features Corning Gorilla Glass Victus 2 for durability. P, or 1TB, with no expandable storage option. 1TB, with no expandable storage option.

product price

-Galaxy S23 ultra with scroll image and description

Similarly in this page of the product-detail where the image can be scroll down for seeing the image from the multiple dimension and also provided with product description where each information and specific emoji for each specification is given.

google Products

. Google Pixel 7



product description

Google's flagship smartphone with Android 13. Material 🌟= The Pixel 9 showcases a sleek design with a matte aluminum frame Dimensions: It measures 152.8 x 72.0 x 8.5 mm and weighs 198

-Google pixel 9 with scroll image and description

. Galaxy S22 Screen Protector

product images



product description

High Clarity and Sensitivity:🌟 Tempered glass protectors are designed to maintain the original clarity of your screen while ensuring high touch sensitivity, allowing for a seamless user experience.

product price

Price: 190.99

-galaxy s23 ultra cover protector

. iPhone 14 Case



product description

Protective case for iPhone 14. Design and Material: Thin and Lightweight: The case is crafted to be slim, making it easy to grip while showcasing the iPhone's vibrant finish.

product price

-iphone 14 case with description

About-us.html

In this page where it is dedicated to the companies history , profile and their commitment towards their business.

Home About Us Apple Samsung Google Accessories

About Us

Welcome to Our Ecommerce Store

At our store, we offer a wide range of top-quality products from leading brands like Apple and Samsung. We also provide accessories tailored to each brand.

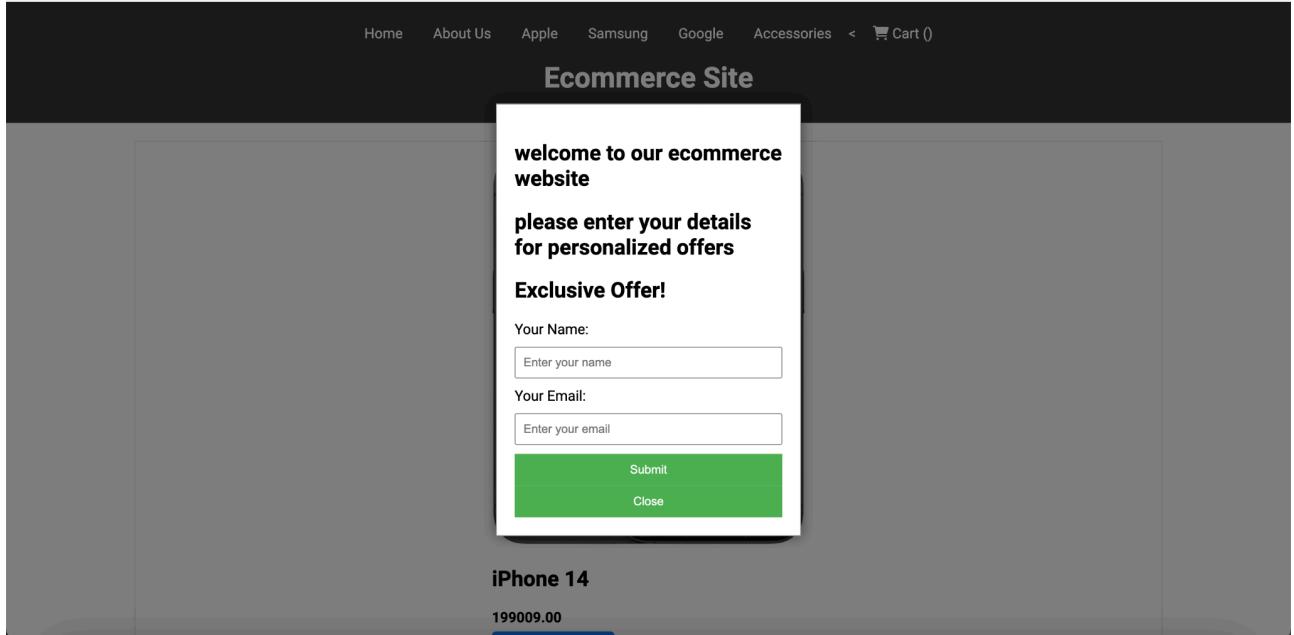
Our mission is to deliver the best products with excellent customer service to meet your needs.

-about-us webpage with the note about their view on business

Screen pop-up page.html

This type of pop up screen occurs in product-list page(Index page) where the user enters the page then after the countdown of 10 seconds where a small pop up page with customizable offers and with the form appears in front of the screen.

It will be very useful for the company especially during the festival season where the user can easily get details regarding the user and in future they can send customizable offers to the user so that retention of the user will be easy and marketing will also be easy.



Apple-products.html

In this page where the user can clearly and easily see the product related to the apple brand only which includes both smartphones and accessories. This page is also similar to the product-detail page where it also consists of scrolling image option and description and finally add to cart button.

Apple Products

. iPhone 14



-apple products in the apple-products.html page

Some other products included in the apple-product.html includes of both smartphone and their accessories.

. iPhone 14 Case



product description

Protective case for iPhone 14. Design and Material: Thin and Lightweight: The case is crafted to be slim, making it easy to grip while showcasing the iPhone's vibrant finish.

product price

-apple accessories also showcased in the apple-products.html page

Samsung-products.html

This page is similar to apple-page, where in this page samsung and their related products are been shown

. Samsung Galaxy S22

product images



product description

Powerful Android smartphone with Exynos processor. Display 📱= Size: 6.8 inches Dynamic AMOLED 2X. Resolution: 1440 x 3088 pixels, providing a pixel density of approximately 500 ppi. Refresh Rate: Supports a smooth 120 Hz refresh rate for enhanced scrolling and responsiveness. Brightness: Peak brightness of up to 1750 nits, ensuring visibility in bright conditions. Protection: Features Corning Gorilla Glass Victus 2 for durability. P, or 1TB, with no expandable storage option. 1TB, with no expandable storage option.

product price

. Galaxy S22 Screen Protector

product images



product description

High Clarity and Sensitivity:👉 Tempered glass protectors are designed to maintain the original clarity of your screen while ensuring high touch sensitivity, allowing for a seamless user experience.

product price

Price: 190.99

-Images included in samsung-product.html where the both products will be shown

Google-products.html

This page is similar to google-page, where in this page google and their related products are been shown

google Products

. Google Pixel 7



product description

Google's flagship smartphone with Android 13. Material UI. The Pixel 7 features a sleek design with a matte aluminum frame. Dimensions: It measures 152.8 x 72.0 x 8.5 mm and weighs 198 g.

Accessories-page.html

In this page irrespective of the brand it is been classified based on accessories which mean this page can consist of both apple,google and samsung accessories even other utility products in accessories like power bank etc.

Accessories

. Wireless Charger



product description

Fast wireless charger compatible with all smartphones. Fast Charging. Provides up to 15W of fast wireless charging for compatible iPhones, including the iPhone 15 series and earlier models with

-Power bank irrespective of brand can be seeing in accessories page