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Beauty Products Store

Proiectare Software

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1 Deliverable 1

1.1 Project Specification

An online beauty products store is a website that sells a wide range of cosmetic and personal care products and perfumes. It provides customers with a convenient and easy way to purchase their favorite products from the comfort of their own homes. The online store has an intuitive and user-friendly interface, with search and filter options to help customers quickly find the right products for their specific needs.

1.2 Functional Requirements

- Product catalog: The store should have a comprehensive catalog of beauty products with detailed descriptions, images, and pricing.
- User registration and login: Customers should be able to register and create an account on the store's website. This will allow them to view their order history, save their shipping and billing details.
- Shopping cart: The store should have a shopping cart feature that allows customers to add items to their cart, update quantities, and check out.
- Customer support: The store should have a dedicated customer support team to assist customers with their inquiries, complaints, or returns.
- Product search and filtering: The store should have a search function that allows customers to search for products by name, brand, category, or price. It should also have filtering options to help customers narrow down their search results.
- Reviews and ratings: The store should allow customers to leave reviews and ratings for products they have purchased. This will help other customers make informed decisions about their purchases.
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1.3 Use Case Model 1

1.3.1 Use Cases Identification

- Search Product: Allows customers to search for products by name, brand, and characteristics.
- Add to cart: Allows users to add products to the shopping cart
- Edit cart: Allows customers to add, delete, or change the quantity of the products
- Create product: Allows the admin to create a new product for listing
- Delete product: Allows the admin to get a product off from the list if it's not available anymore
- Update product: Allows the admin to change the price or the quantity of the product
- Search order: Allows the admin to keep track of every order
- Delete order: Allows the admin to delete any order that could've been placed by accident

1.3.2 UML Use Case Diagrams

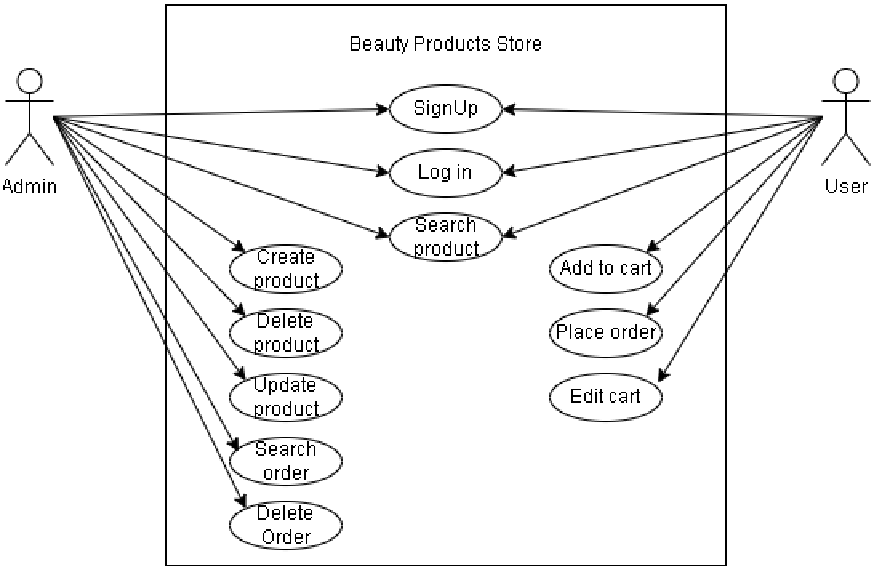

Figure 1: Use-Case Diagram

1.4 Supplementary Specification

1.4.1 Non-functional Requirements

- Performance: The website should load quickly and respond to user actions without delays or errors, even during peak traffic periods.
- Security: The website should have strong security measures in place to protect customer data, such as encryption of sensitive information and secure login processes.
- Scalability: The website should be able to handle increasing numbers of visitors and transactions without compromising performance.
- Availability: The website should be available 24/7 to ensure that customers can browse and make purchases at any time.
- Usability: The website should be user-friendly and easy to navigate, with clear and concise information about products and services.
- Compatibility: The website should be compatible with different web browsers, operating systems, and devices to ensure that all customers can access the site.
- Reliability: The website should be reliable and free from errors or glitches, to ensure that customers can complete their transactions without interruption.
- Maintainability: The website should be easy to maintain and update, with a robust content management system and efficient coding practices.

1.4.2 Design Constraints

The programming language used is Java with the help of Spring Boot framework.For the database management system I chose MySQL.

1.5 Glossary

- Account - A user's personal profile within the application where they can store their preferences, purchase history, and payment information.

- Search - A tool that allows users to search for products by keywords, categories, or brands.
- Add to cart - A button that allows users to add a product to their shopping cart.
- Shopping cart - A feature that shows users the products they've added to their cart and allows them to adjust the quantities or remove items before checkout.
- Customer - Any user that interacts with your website and purchases a product

2 Deliverable 2

2.1 Domain Model

A domain model is a visual representation of the key entities, relationships, and attributes that exist in a particular business domain or context. It provides a conceptual overview of the domain and serves as the basis for designing the software system.

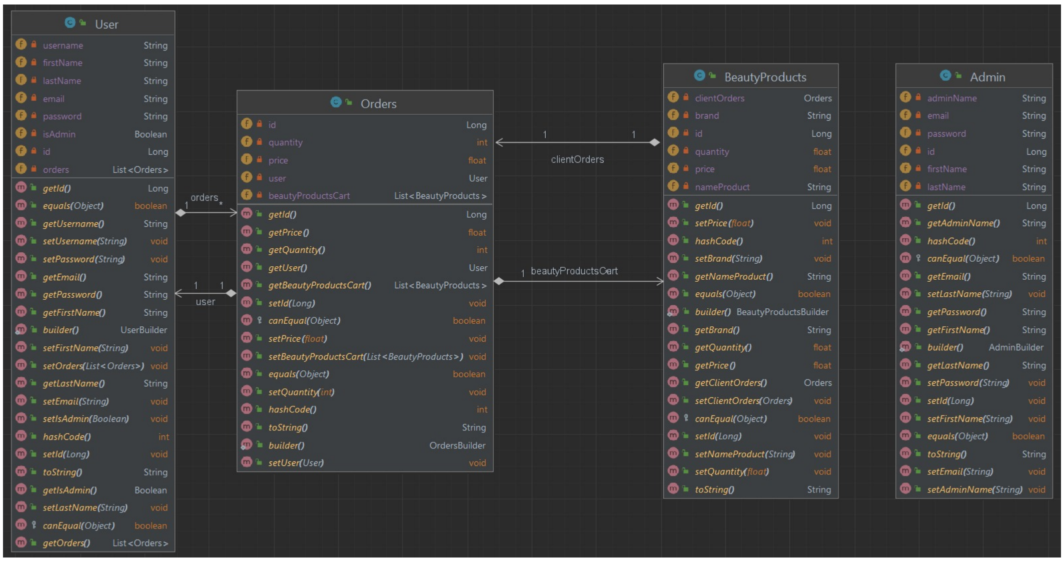

Figure 2: Class Diagram

2.2 Architectural Design

The Model-View-Controller (MVC) pattern is a common architecture pattern for web applications.

- Model: The model represents the data and business logic of the application.In a beauty products store, the model would include information about the products, such as their names, prices, and quantity.
- View: The view is the user interface of the application. It displays the data and allows users to interact with it. In a beauty products store, the view would include pages for browsing products, viewing product details, adding products to a shopping cart, and checking out.
- Controller: The controller handles user input and manages the flow of data between the model and the view. It receives requests from the view, retrieves data from the model, and updates the view with the new data.

2.2.1 Conceptual Architecture

2.2.2 Package Design

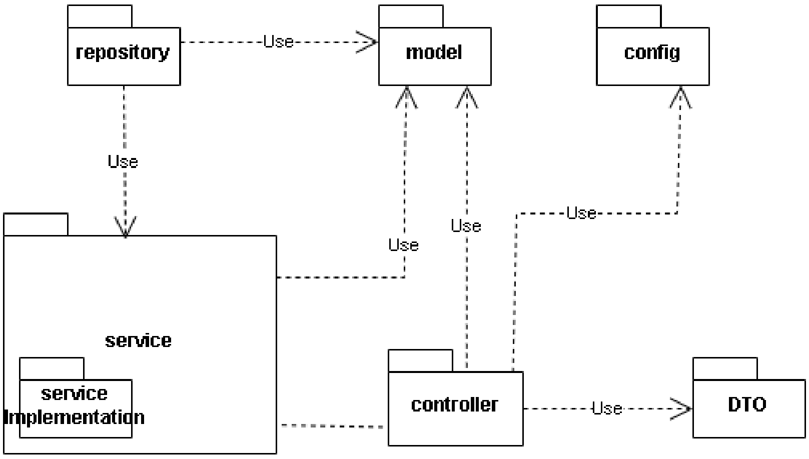

Figure 3: Package Design

2.2.3 Component and Deployment Diagram

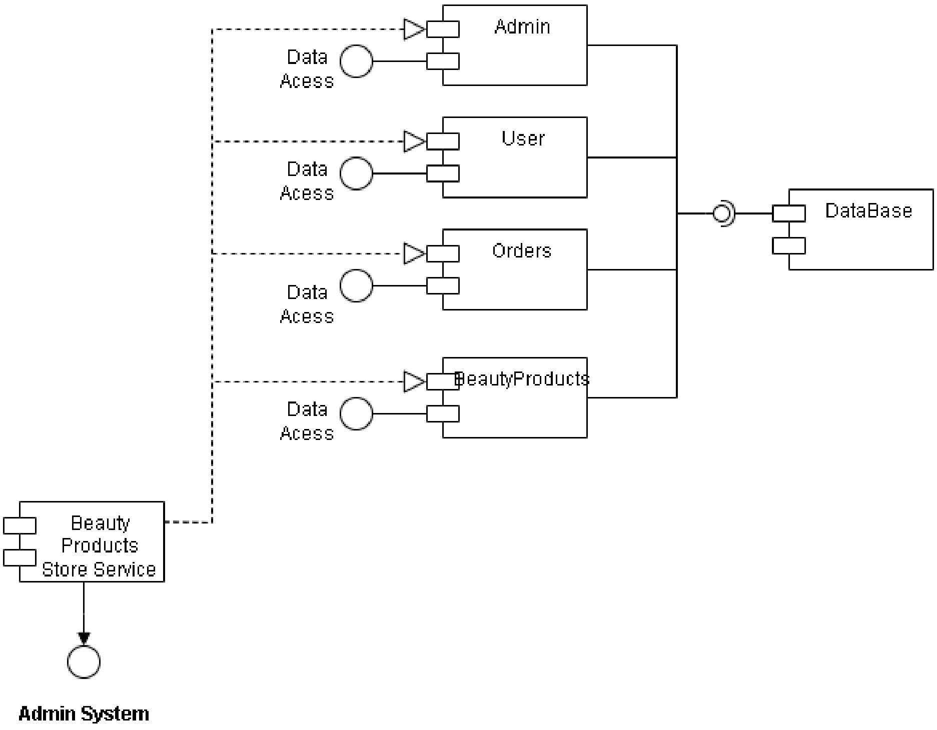

Figure 4: Component Diagram

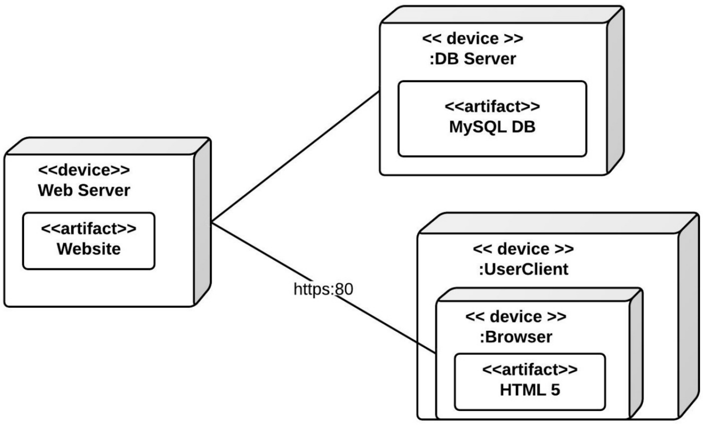

Figure 5: Deployment Diagram