UNIVERSITATEA TEHNICĂ DIN CLUJ-NAPOCA

Perfume webstore

Proiectare Software

Nume: Muresan Ioana Danina
Grupa: 30236

FACULTATEA DE AUTOMATICA
SI CALCULATOARE

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Cuprins

1   Deliverable 1

1.1   Project Specification

The objective of this project is to develop a fully functional online perfume store using the Spring Framework. The store will allow customers to browse and purchase different perfumes online.

User Roles: The online store will have two types of users:

- **Customer:** can browse and purchase perfumes online and view and add a review.
- **Administrator:** can manage the product catalog, manage orders.

Features

- Customers can search for the product according to the specified criteria.
- Customers can add and delete products from the shopping cart.
- Customers can order the products in the shopping cart.
- Customers can change their password and view their orders.
- Admin can add or modify a product.
- Admin can change the data of any user.
- Admin can view orders of all users.

1.2   Functional Requirements

1. **User registration and login**: The system should allow users to register and create an account to browse and purchase products. Users should be able to log in to their account using their email and password.
2. **Product Catalog**: The system should display a catalog of perfumes with their details like name, brand, price, fragrance notes, size, and image. Users should be able to search and filter products by their attributes.
3. **Product Detail Page**: The system should display detailed information about each product, including product images, descriptions, reviews, ratings, and related products.
4. **Shopping Cart**: The system should allow users to add products to their cart and proceed to checkout or continue shopping. Users should be able to edit and remove items from their cart.
5. **Order Management**: The system should allow users to track their orders, view order history, and manage their shipping and billing addresses.
6. **Review**: The system should allow users to provide reviews about the products. The store owner should be able to manage and moderate the reviews.
7. **Mobile-Friendly**: The system should be mobile-friendly to allow users to browse and shop on their mobile devices.

1.3   Use Case Model 1

1.3.1   Use Cases Identification

- Browse Products: The user wants to browse the catalog of perfumes and filter the products based on various attributes like brand, price, and fragrance notes.
- Search Products: The user wants to search for a specific perfume by name or keyword.
- Add to Cart: The user wants to add a product to the shopping cart and proceed to checkout.

- Edit Cart: The user wants to edit the items in the shopping cart, including changing the quantity or removing items.
- View Order History: The user wants to view the list of orders placed and their status.
- Provide Review: The user wants to provide review about the product.
- Manage inventory: The admin can use the store's inventory management system to add, remove or update product information, such as product name, description, price, and quantity.
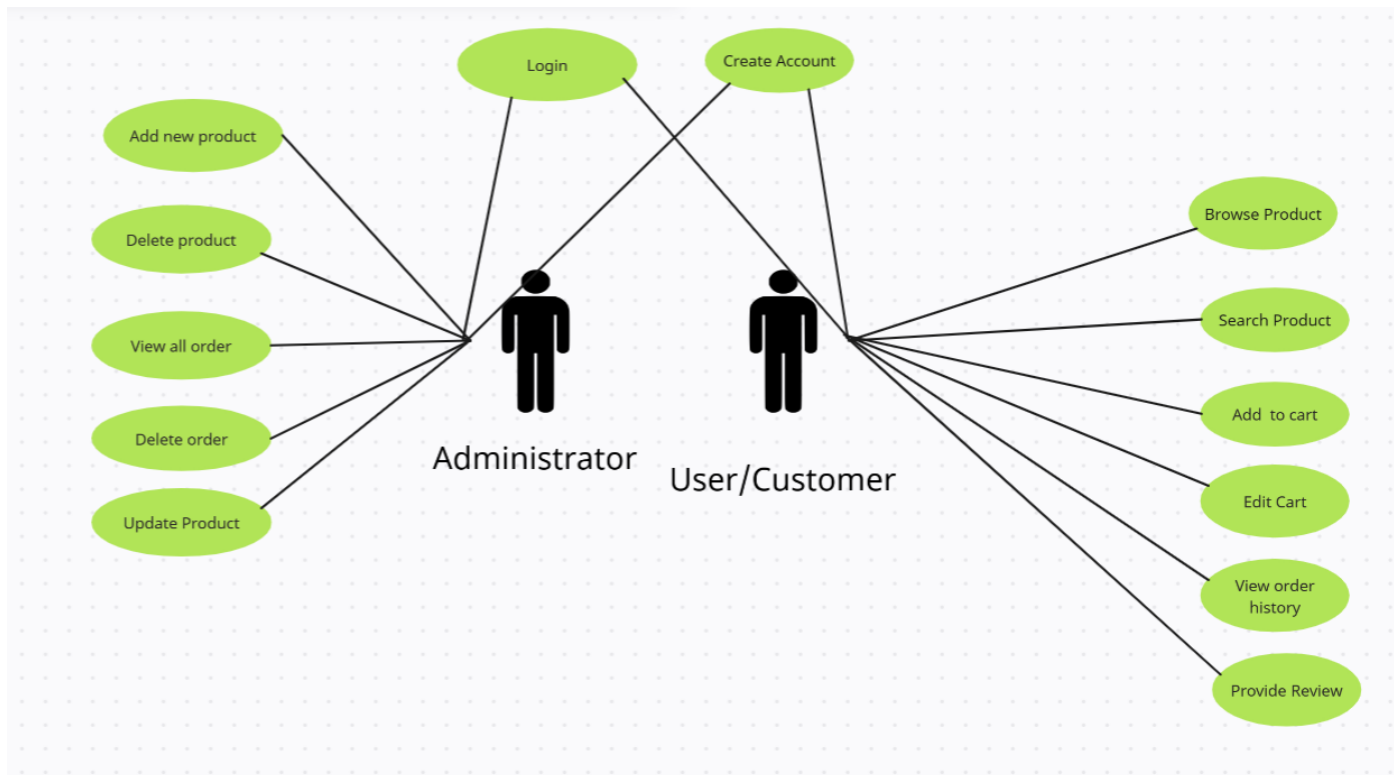- Manage order : The admin

1.3.2 UML Use Case Diagrams

Figura 1: Use Case Diagrams

1.4 Supplementary Specification

1.4.1 Non-functional Requirements

Non-functional requirements are the aspects of a system that specify how well the system should perform rather than what the system should do. Here are some potential non-functional requirements for a perfume online store:

- Performance: The website should load quickly and respond to user input promptly to ensure a smooth shopping experience for customers.
- Availability: The website should be available 24/7, with minimal downtime or maintenance periods, to ensure customers can access the store whenever they want.
- Security: The website should be secure to protect customer data, such as personal information and payment details, from unauthorized access and cyber attacks.
- Reliability: The website should be reliable and stable, with minimal errors or bugs, to ensure customers can complete their purchases without disruption.

- Usability: The website should be easy to use and navigate, with a clear and intuitive user interface that meets the needs of customers.
- Compatibility: The website should be compatible with a range of devices and browsers, including mobile devices, to ensure customers can access the store from any device they choose.

Overall, these non-functional requirements are important to ensure the online perfume store provides a high-quality user experience, protects customer data, and maintains the store's reputation and profitability.

1.4.2 Design Constraints

The application is developed using Java programming language and Spring framework, which is integrated with a MySQL database. The data is fetched and tested using Postman. The application runs on localhost on port 8083. The user interface is created using Angular, ensuring a modern and user-friendly interface. The data security measures are implemented using Spring Boot, providing a secure and reliable platform for data management.

1.4.3 Glossary

Here are some terms that may be used in the context of an online perfume store:
- Inventory management system: A software system used to manage and track the store's inventory, including product information, quantity, and availability.
- Performance: The measure of how well the website functions, including speed, responsiveness, and stability.
- Reliability: The measure of how well the website performs, including the frequency and severity of errors or bugs.
- Usability: The measure of how easy it is for users to navigate and use the website, including the user interface and design.
- Compatibility: The measure of how well the website functions on different devices and browsers.
- Review: A review is an evaluation or assessment of something, such as a product, service, or performance. A review can be positive, negative, or neutral, and it typically involves an analysis of the strengths and weaknesses of the item being reviewed