Development of SportyShoes.com(E-commerce Web Application)

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GIT URL :

The progress of the project is hosted at github repository below:

https://github.com/bujikun/java-fsd-newtonbujiku-bujikun-vodacom.co.tz

Under the Phase 3 directory

SPECIFICATION

This is a Spring Boot 3 application through which users are able to buy shoes online. To place orders, users must register themselves.

TECHNOLOGIES & CONCEPTS

This application uses the following concepts and technologies

- Java 17
- Hibernate 6
- Spring Boot 3
- Spring Security 6
- Spring Data JPA
- Spring JDBC
- Thymeleaf
- Lombok
- Material Design For Bootstrap (MDB6)
- Jquery
- MySQL
- Maven
- IntelliJ Idea
- Git & Github
- Agile Scrum Framework

For Java concepts in the project: The application requires JDK 17

Since this is a Spring application it uses various Spring concepts like AOP, Spring Context, Auto Configuration, Inversion of Control(Dependency Injection) etc.

PROJECT IMPLEMENTATION

The project was completed in 2 sprints:

Sprint 1

The following were achieved in this designing sprint:

- Determining Java concepts to be used
- Choosing database technology and build tools
- Defining project scope and structure
- Preparing remote repository
- Sprint planning and review

Sprint 2 (Building Application Features)

The following were done in this sprint including scrum ceremonies and user stories:

- Sprint Planning
- Build home page listing available categories for products
- User to be able to log in
- User to be able to register themselves
- User to be able to browse products in categories
- User to be able to brows all products from all categories
- User to be able to add items to cart
- User to be able to empty cart items
- User to be able to checkout cart items after logging in
- User to be able to purchase only products in stock
- User to be able to view all orders they have placed
- User to be able to view details of individual orders
- User to be able to change password
- User to be able to log out
- Admin to have all the access of the normal user plus admin special rights
- Admin to be able to add new category
- Admin to be able to edit existing category

- Admin to be able to view one category
- Admin to be able to view all categories
- Admin to be able to link products to a category
- Admin to be deactivate categories
- Admin to be able to add new product
- Admin to be able to edit existing product
- Admin to be able to view one product
- Admin to be able to view all products
- Admin to be able to link categories to a product
- Admin to be deactivate products
- Admin to be able to view all users in the system
- Admin to be able to search users by username, email or city
- Admin to be able to view details of a single user
- Admin to be able to view orders placed by a user while viewing their profile
- Admin to be able to view purchase reports
- Admin to be able to search purchase reports by date range and category
- Superadmin(default username:**admin**) to be able to assign admin powers to other users
- Superadmin(default username:**admin**) to be able to revoke admin powers from other admins
- System to assign account number to be used for payment during user registration
- System to restrict menus and actions based on whether it's normal user or admin
- System to handle exceptions by presenting proper error pages
- System to enforce proper authorization(user can do only what they should do)

How run the program.

The application requires MySQL Server

1. Open the project in Intelli J/Eclipse
2. Edit application.yml by providing datasource username and password
3. Also edit datasource url (port number) as per your RDBMS

4. No need to create a database as the application will create that once it is run the first time
5. Initial data file is in the resources folder (data.sql)

Initial Application State

The application runs on port 8090 by default.

3 users will be created initially with usernames

1.**admin** 2.**user** 3.**donnie** . Each of these three users, use **password** as their passwords.

New users can register themselves.

By default only admin is an administrator and the other 2 are just normal users.

Only superadmin(**admin**) can make other users admin or revoke that access.

There are also some products belonging to different categories and some orders placed by these initial users. Some of these orders have created on date in the future and past for the sake of demonstrating the searching feature in reports.

Products that have 0 count (stock) or deactivated will not be available for ordering.

Deactivated categories or those that are not linked to any product wont appear to normal users.

The screenshot.pdf file has all the screenshots depicting the execution of the application step by step.