

FASHIN

An artistic illustration of a woman from the chest up, wearing a large, wide-brimmed brown hat and a white, open-shoulder dress. She is looking down with her hand near her chin. The background is a warm, muted brown with stylized green monstera leaves and a small white crescent moon. The word 'FASHIN' is written in a large, black, serif font with a thin underline.

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Introduction

FashIn is a dynamic and user-friendly e-commerce web application designed to offer a seamless shopping experience for fashion and lifestyle products. Built using Spring Boot, FashIn provides a robust and scalable backend that ensures smooth functionality, and efficient data management. It allows customers to browse, search, and purchase a wide range of fashion items with ease. Key functionalities include user authentication, product catalogue management with vast categories option. The backend, powered by Spring Boot, is integrated with a database to manage users, products, and orders efficiently. Additionally, the application follows MVC architecture and utilizes Thymeleaf for dynamic content rendering.

Project Overview

This project aims to develop an e-commerce platform that is dedicated to selling fashion and lifestyle products. We have used SpringBoot as backend to develop our Web-Application. Our Application aims to provide user friendly platform for their shopping.

Buy fashion and lifestyle Products: dedicated market place for fashion lovers.

User Friendly Interface: Built with modern technologies HTML, CSS, Javascript, Java, SpringBoot and MySQL.

Advance search: easily browse products based on brand and category.

Tools for Development

Software Requirements: Frontend tools and technologies:

HTML

CSS

JAVASCRIPT

Backend tools and technologies: Java

SpringBoot

DataBase:

SQL

Hardware requirements: Processor Intel i3

Hard disk:40GB

Ram:512MB or more...

Why this tools

- HTML**: Used to structure the content of web pages.
- CSS**: Used to style and design the appearance of web pages.
- JavaScript**: Used to add interactivity and dynamic behavior to web pages.
- Java**: Used as a backend programming language to build server-side logic.
- Spring Boot**: Used to quickly build and run Java-based backend applications.
- SQL**: Used to store, manage, and retrieve data from databases.
- Hibernate**: It is a efficient ORM Framework for seamless database Operation and Query Optimization.
- Spring Security**: For Robust authentication and authorization to ensure data privacy.

Component Breakdown

- **User Management**
- **Product Management**
- **Category Management**
- **Admin Dashboard**

Frontend Architecture

Frontend Architecture: HTML for Structure and CSS for Styling and JavaScript for interactivity.

API Integration: It connects with backend to fetch and display dynamic contents.

Responsive design: ensures compatibility across desktop and devices.

Backend Architecture



Project

☐ Gradle - Groovy ☐ Gradle - Kotlin

☒ Maven

Language

☒ Java ☐ Kotlin ☐ Groovy

Spring Boot

☐ 3.5.0 (SNAPSHOT) ☐ 3.5.0 (M3) ☐ 3.4.5 (SNAPSHOT) ☒ 3.4.4

☐ 3.3.11 (SNAPSHOT) ☐ 3.3.10

Project Metadata

Group

Artifact

Name

Description

Package name

Packaging ☒ Jar ☐ War

Java ☐ 24 ☐ 21 ☒ 17

Dependencies

ADD DEPENDENCIES... CTRL + B

Spring Web WEB

Build web, including RESTful, applications using Spring MVC. Uses Apache Tomcat as the default embedded container.

Spring Boot Dev Tools DEVELOPER TOOLS

Provides fast application restarts, LiveReload, and configurations for enhanced development experience.

Spring Data JPA SQL

Persist data in SQL stores with Java Persistence API using Spring Data and Hibernate.

Spring Security SECURITY

Highly customizable authentication and access-control framework for Spring applications.

Lombok DEVELOPER TOOLS

Java annotation library which helps to reduce boilerplate code.

MySQL Driver SQL

MySQL JDBC driver.

Thymeleaf TEMPLATE ENGINES

A modern server-side Java template engine for both web and standalone environments. Allows HTML to be correctly displayed in browsers and as static prototypes.

Validation IO

Bean Validation with Hibernate validator.

GENERATE CTRL + G

EXPLORE CTRL + SPACE

...

Layers:

Controller Layer: It handle http requests and response.

Repository Layer: Manages database operations using JPA/Hibernate.

Database

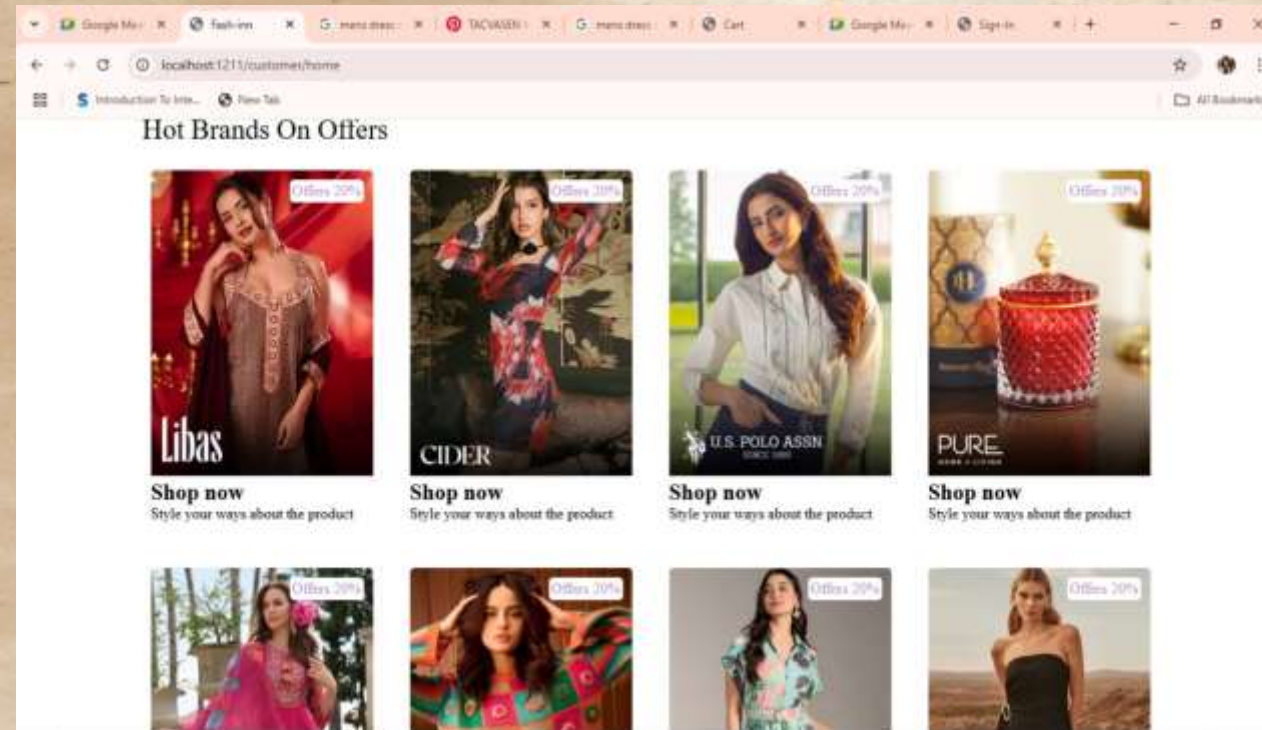
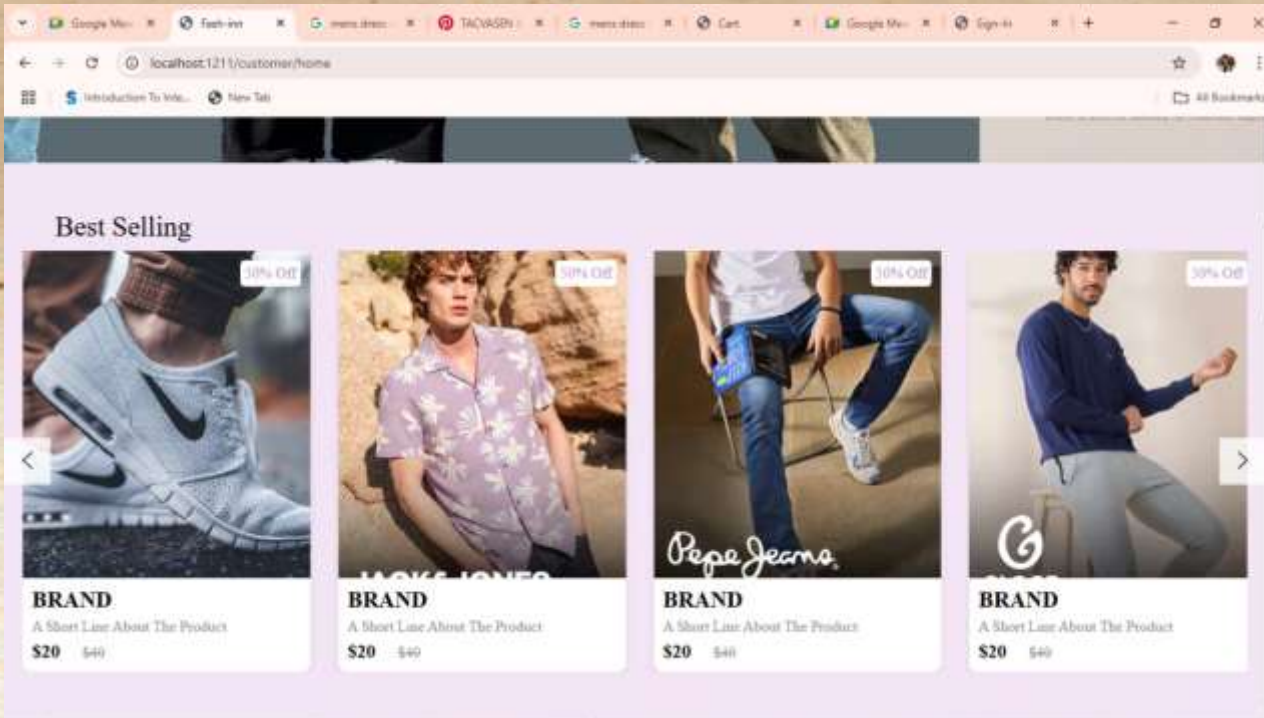
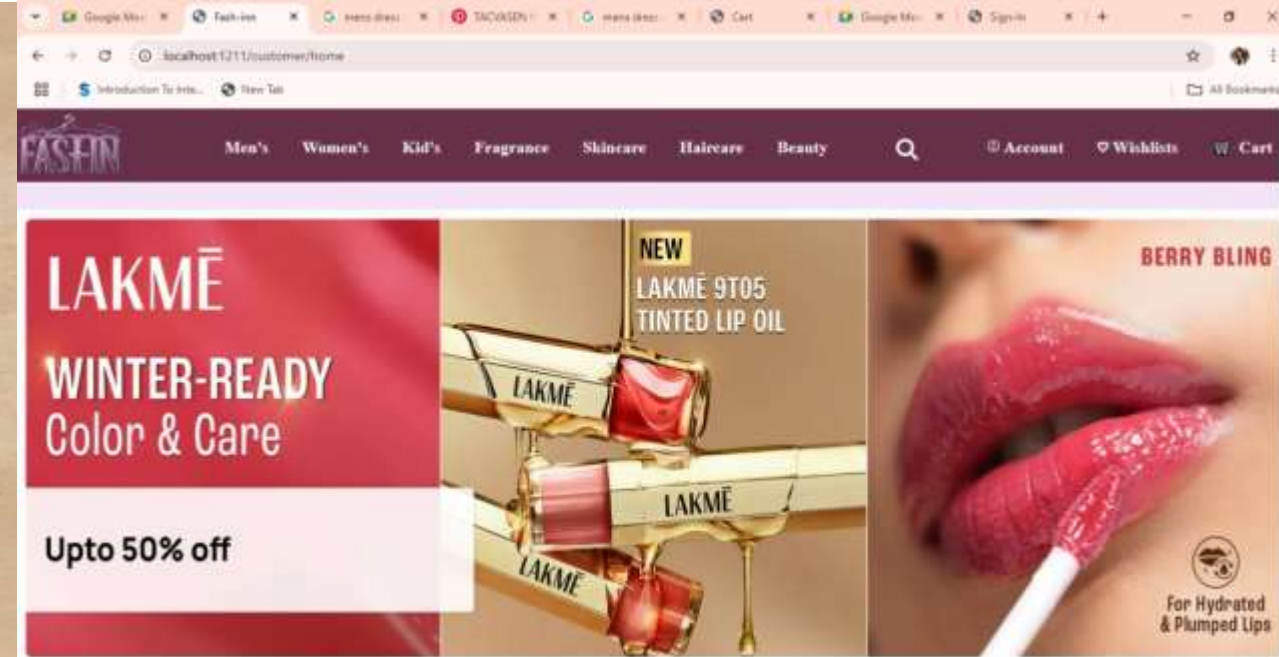
MySQL for Storing data regarding customer, product and order.
It uses CRUD operation for data management.

Security: SpringBoot Security for authentication and role based control.

The screenshot displays the MySQL Workbench interface. The left sidebar shows the 'SCHEMAS' tree with 'fash_in' selected, containing tables like 'category', 'order_item', 'orders', 'payment', 'product', 'ratings', 'user', 'widget', 'widget_product', and 'wishlist'. The main query editor shows a query: `SELECT * FROM fash_in.product;`. The 'Result Grid' tab is active, displaying 106 rows of product data. The bottom status bar indicates the query was executed successfully, returning 106 rows in 0.000 seconds.

product_id	updated_date	created_by	created_date	updated_by	product_description	product_image_url
02a65e9e-4ac3-4333-a29d-438bd9f2c50c	2025-02-22 13:49:28.000000	admin	2025-02-22 13:49:28.000000	admin		https://exz
15d7fc25-93b3-45e7-b33e-18a9d0f5c6f2	2025-02-22 13:49:28.000000	admin	2025-02-22 13:49:28.000000	admin	A gentle facial bleach that brightens the skin an...	https://exz
1b663720-6580-4319-b41b-89cf19503999	2025-02-22 13:49:28.000000	admin	2025-02-22 13:49:28.000000	admin	A luxurious silk scarf with a vibrant pattern, add...	https://exz
1b8464bc-23a5-4933-b3b5-3c2c727ceda5	2025-02-22 13:49:28.000000	admin	2025-02-22 13:49:28.000000	admin	Bright and fun rain boots for kids, keeping their ...	https://exz
1c72d153-1fe7-4a1f-b0b0-2337128f6472	2025-02-22 13:49:28.000000	admin	2025-02-22 13:49:28.000000	admin	Stylish cargo shorts with multiple pockets, perfe...	https://exz
1f27c7d9-2630-4f5f-b6e6-b2c1a2d9c3c7	2025-02-22 13:49:28.000000	admin	2025-02-22 13:49:28.000000	admin	Premium tape-in hair extensions that seamlessly...	https://exz
249c35bf-44df-4f55-9206-9b316ce19059	2025-03-21 03:42:29.429679	admin	2025-03-21 03:42:29.429679	admin	A gentle facial bleach that brightens the skin an...	upload_img
2d5a5c1f-4d3f-426b-a1b4-52a0c3bb9f53	2025-02-22 13:49:28.000000	admin	2025-02-22 13:49:28.000000	admin	A facial roller designed to stimulate blood circula...	https://exz
2db0ba36-4b3c-4f45-bae6-18340e239d97	2025-03-21 03:38:36.300558	admin	2025-03-21 03:38:36.300558	admin	student of it	upload_img

HomePage



PLP Page

Google Meet x

Fash-inn x

mens dress x

TACVASEN x

mens dress x

Cart x

Google Meet x

Sign-In x

+

—

📦

×

← → ↺

localhost:1211/customer/plp?category=b1234567-89ab-4cde-1234-56789abcdef1

☆

👤

⋮

📖 Introduction To Inte... New Tab

📁 All Bookmarks

Women's

CATEGORIES

4 CATEGORIES AND ACCESSORIES

4 TOPWEAR

PRICE

BRANDS ▼

OFFERS ▼

DISCOUNT ▼


SIZE ▼

COLOR ▼

FIT ▼


TYPE ▼

50% Off




Silk Scarf
49.99 ~~\$40~~

50% Off




A Line Dress
2000.0 ~~\$40~~

50% Off



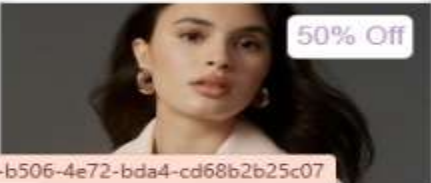
Oversized Sunglasses
39.99 ~~\$40~~

50% Off




Leather Handbag
129.99 ~~\$40~~
[Add To Wishlist](#)


50% Off




50% Off



50% Off



50% Off



localhost:1211/customer/product/pdp?product=6d2c11f4-b506-4e72-bda4-cd68b2b25c07

Cart Page



Search your Items



To your Current Saved address >

Change address

Select Delivery Address:

Home - 123 Main Street



Men Regular Fit Checkered Spread Collar Casual Shirt by Sun Feb 23 | ~~\$40~~ **Free**

Fits: Regular | Size: XL

~~\$176~~ **\$19.99** 63% off 2 Offers available !!



Place Order

Price Details

Price: \$19.99

Discount:

Delivery Charges:

Total Amount: \$39.98

Select
Payment
Method:

Cash on Delivery



PDP Page

Browser tabs: Google Meet, Fash-inn, mens dress, TACVASEN, mens dress, Document, Google Meet, Sign-In

Address bar: localhost:1211/customer/product/pdp?product=1cab1b06-65a8-4fdf-bb54-c62a72252df8

Navigation bar: FASH-INN, Men's, Women's, Kid's, Fragrance, Skincare, Haircare, Beauty, Account, Wishlists, Cart

Product name: blazer

Product image: A man wearing a light green blazer over a white shirt and dark trousers.

Product description: good quality blazer

Select Size

Size options: S, M, L, XL

Buttons: Add to Wishlist, Add to Bag

Select Delivery Location

Apply

Customer Reviews

★★★★☆

27/5

Product Page in Admin DashBoard

Google Meet

Fash-inn

mens dress

TACVASEN

mens dress

Document

Google Meet

Sign-In

localhost:1211/admin/product

Introduction To Inte...New Tab

All Bookmarks

Dashboard

Orders

Products

Category

Widget

Settings

Logout

Total Orders: 120




Revenue: \$15,000

Products: 350

Users: 500

Manage Products

Add Product

Product Title	Product Description	Images	Price	Stock	Product Status	Action
High-Top Sneakers	Trendy high-top sneakers with a modern design and great support.		657.0	0	ACTIVE	<div>EditDelete</div>
Whitening Facial Bleach	A gentle facial bleach that brightens the skin and helps in reducing dark spots and pigmentation.		300.0	0	ACTIVE	<div>EditDelete</div>
	A luxurious silk scarf with a vibrant pattern.					<div>EditDelete</div>

Database Table

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

fast_in

Tables

- category
- order_item
- orders
- payment
- product
- ratings
- user
- widget
- widget_product
- wishlist

Views

Stored Procedures

Functions

sys

Administration Schemas

Information

Table: product

Columns:

- product_id
- updated_date
- created_by
- created_date
- updated_by
- product_description
- product_image_url
- product_price
- product_status

product

Limit to 1000 rows

Result Grid

product_id	updated_date	created_by	created_date	updated_by	product_description
02a65e9e-4ac3-4333-a29d-438bd9f2c50c	2025-04-02 07:06:25.330328	HULL	2025-02-24 09:35:25.000000	HULL	Trendy high-top sneakers with
15d7fc25-93b3-45e7-b33e-18a9d0f5c6f2	2025-04-02 07:22:19.821293	HULL	2025-02-24 09:35:25.000000	HULL	A gentle facial bleach that br
1b663720-6580-4319-b41b-89cf19503999	2025-04-02 07:26:01.866936	HULL	2025-02-24 09:35:25.000000	HULL	A luxurious silk scarf with a v
1b8464bc-23a5-4933-b3b5-3c2c727ceda5	2025-04-02 07:28:25.218222	HULL	2025-02-24 09:35:25.000000	HULL	Bright and fun rain boots for
1c72d153-1fe7-4a1f-b0b0-2337128f6472	2025-04-02 07:11:34.337576	HULL	2025-02-24 09:35:25.000000	HULL	Stylish cargo shorts with mult
1cab1b06-65a8-4fdf-bb54-c62a72252df8	2025-04-04 13:35:47.119448	HULL	2025-03-22 01:59:24.472102	HULL	good quality blazer
1573-740-2620-45f5-b6c6-b311-3d0e2e7	2025-04-02 07:20:21.731153	HULL	2025-02-24 09:35:25.000000	HULL	Greenhouse top to help protect

product 1 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	13:35:23	SELECT * FROM fast_in.product LIMIT 0, 1000	109 row(s) returned	0.000 sec / 0.000 sec

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid

Form Editor

Context Help

Snippets

Object Info

Session

Future Enhancement

Integration with social media market Place: Allow Product Sharing and selling through platform like Instagram and facebook.

Voice Search Integration: Enhance Search Functionality with voice commands for easier product discovery.

Payment Gateway Integration: add support for online payments.

Problem Statement

Responsive UI and Frontend Integration

Frontend not rendering correctly across different devices.

Issues integrating Thymeleaf templates or consuming REST APIs (if using React/Angular).

Delays or errors in loading dynamic content (like product listings or filters).

Cart and Order Handling Logic

Managing cart session per user.

Handling product availability during checkout.

Generating unique order IDs and order confirmation logic.

Search and Filtering Performance

Slow response when filtering large datasets.

Search results not matching keywords accurately.

Pagination and sorting logic errors.

Solution

Use model attributes with Thymeleaf (`model.addAttribute()`) for server-side rendering.

For REST + React: Fetch data via `fetch()` or `axios`, and ensure CORS is enabled (`@CrossOrigin`).

Use loading spinners and error handlers in UI for better user experience.

Use session attributes or token-based user ID to manage carts.

On checkout, use a transactional service (`@Transactional`) to:

Decrease stock quantity

Save order details Validate product availability before confirming the order.

Use Spring Data JPA custom queries with `@Query` or query methods like `findByTitleContainingAndCategory()`.

Use pagination with `Pageable` to load data in chunks.

Add filter options in the frontend and pass them as query parameters.

Spring Security

Common Features of Spring Security

Feature	Description
Authentication	Validates user identity (login)
Authorization	Gives access to resources based on roles (e.g., ROLE_ADMIN, ROLE_USER)
Password Encoding	Uses BCrypt for encrypting passwords
Session Management	Handles user sessions securely
Security Filters	Filters every request and applies security rules

Contributors

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Conclusion

The *FashIn* Web Application* successfully delivers a seamless and user- friendly platform for fashion enthusiasts. By offering an intuitive interface, well- organized product categories, and a visually appealing design, the application enhances the online shopping and lifestyle experience. With features such as user profiles, fashion blogs, trend updates, and a responsive shopping module, the platform ensures easy navigation and engagement. The efficient order management further improves customer satisfaction. Moving forward, continuous improvements based on user feedback, expansion of product offerings, and enhanced marketing strategies will help the platform grow and attract a wider audience. This project lays a strong foundation for future developments in the digital fashion and lifestyle industry.

Thank You