

Trading Sneakers, Simulating Payments: A Full-Stack E-Commerce Platform for Second-Hand Fashion

This project was developed in response to the growing relevance of sustainable consumer habits and the rise of second-hand fashion platforms. *Hewwwwe* is an innovative full-stack e-commerce application that enables users to buy, sell, and exchange sneakers and clothing items in a flexible, intuitive, and environmentally conscious environment. The platform supports both simulated payments through virtual credits and direct product-for-product exchanges, without the involvement of real money transactions. The motivation behind this project lies in the exploration of circular economy models, the promotion of digital transaction alternatives, and the desire to build a modern web platform from scratch using current technologies.

The main goals of the project include building a secure, user-friendly interface; implementing robust authentication and authorization systems; designing product listing, exchange, and payment simulation flows; and creating an administrative dashboard for full system management. The frontend is developed using **React 18**, **TypeScript**, **Material UI 7**, and **Vite** for optimized performance and maintainability. The backend relies on **Java 21**, **Spring Boot 3.4**, **Spring Security**, and **MySQL** as the core database. Deployment is achieved using **Docker** and **Docker Compose**, with **Nginx** acting as the reverse proxy server. Agile SCRUM methodology guided the development process across multiple sprints.

The result is a scalable and maintainable system that meets the specified objectives. While it currently simulates transactions, it is fully prepared for the integration of real payment gateways in future iterations. The platform demonstrates how virtual economy concepts and exchange systems can power real-world applications in the second-hand market.

Keywords: second-hand marketplace, product exchange, simulated payments, Spring Boot, full-stack development