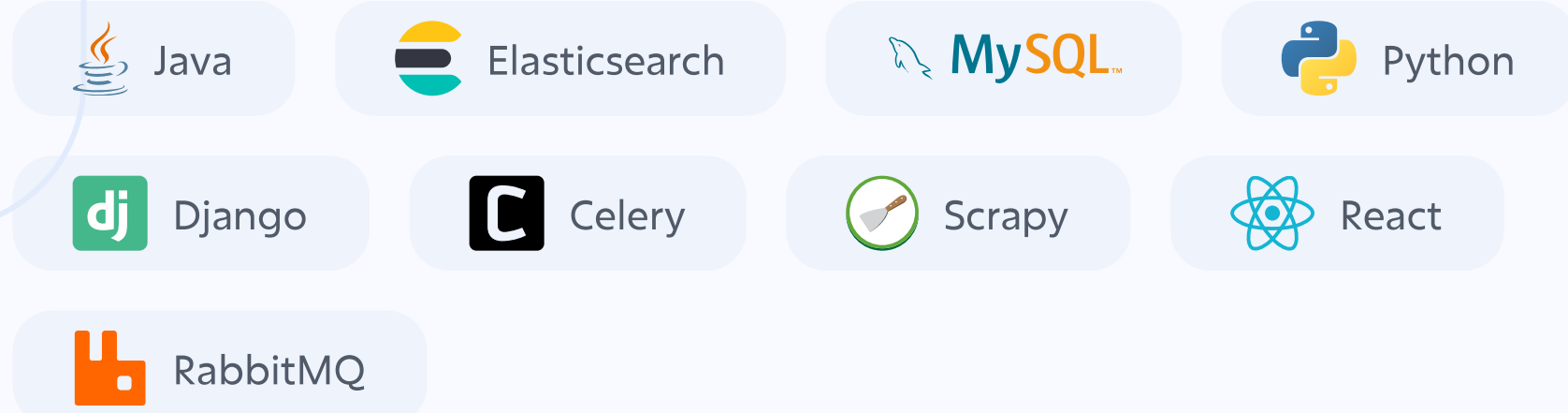Case study

U-PAX

Architectural Overhaul: Optimizing Backend Systems for
Seamless Shop Integration

Technologies

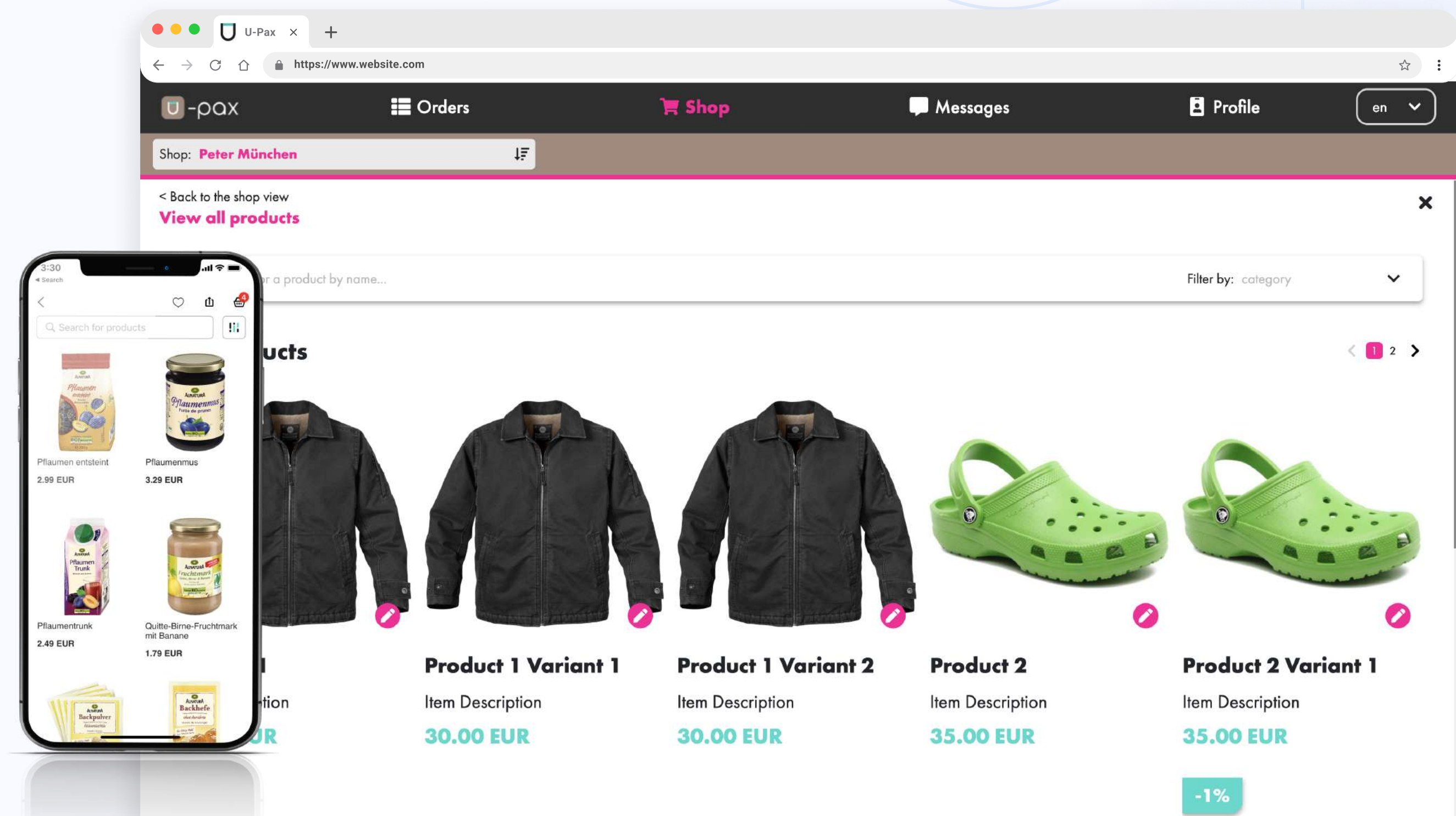Java

Elasticsearch

MySQL

Python

Django

Celery

Scrapy

React

RabbitMQ

U-PAX

Client since
2020

Location
Germany

Industry
E-commerce

About the client

Think of U-pax as an Etsy or eBay, but exclusively for local products. Since 2017, it's been the go-to platform for supporting and shopping from neighborhood sellers, merging the charm of local finds with the ease of online shopping.
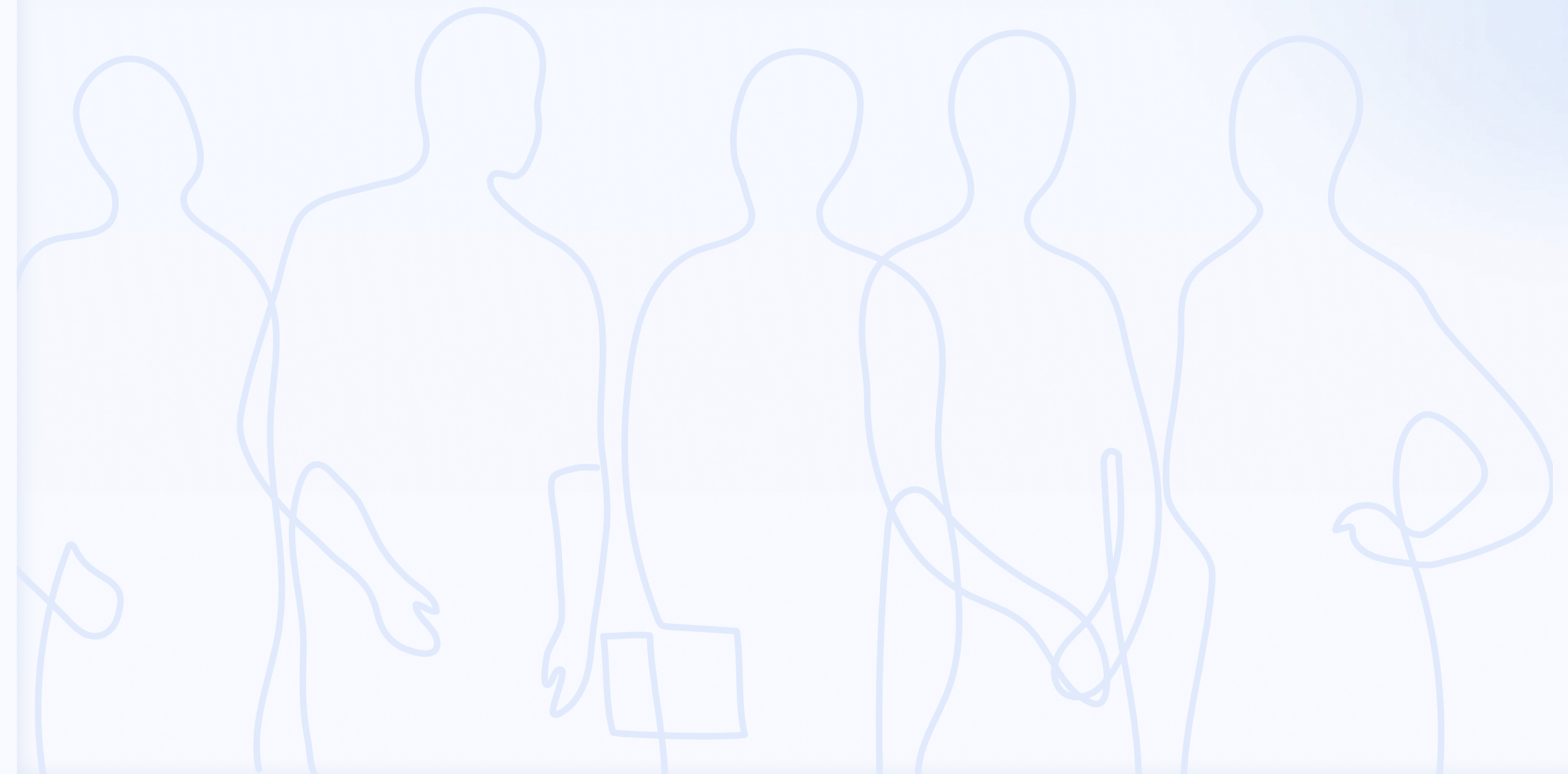
Number of stores	Number of products	Number of locations
500	1.5 mil+	3

The Challenge

⚠ U-pax faced significant hurdles in the retail landscape. With a vast network of local retailers from diverse sectors and regions, the challenge of creating a unified digital platform was evident. They required an efficient system that could not just consolidate data from all these varied stores, but also refine and present this data in a manner consistent with retail standards.

⚠ Another pressing issue was the sluggish digital onboarding process for stores within the U-pax ecosystem. Furthermore, the absence of a comprehensive tool that could offer real-time access to essential product-related details—spanning product availability, shop information, location, reviews, images, and pricing—added to their complexities.

Implementation

+ Redesigned the app with a modernized UI and optimized UX.

+ Implemented a range of new payment methods, including Apple Pay, Google Pay, and PayPal, while enhancing the current payment system with additional functionalities like split payments (allocating taxes to the u-pax account and the remainder to the owner's account), processing refunds, and accepting payments in various currencies.

+ Integrated Elasticsearch for improved search capabilities.

+ Developed a web app specifically for sellers.

+ Implemented a sophisticated crawling system for data extraction from major e-commerce platforms and custom algorithms for tailor-made shops.

+ Developed a mapping solution for efficient distance calculations.

+ Introduced data-driven analytics to study user behaviors.

The Results

✓ A more modern and user-friendly app interface.

✓ Expanded and smoother payment options for users.

✓ Precise and relevant search results for users.

✓ Streamlined shop management for sellers.

✓ Effortless data extraction from leading e-commerce platforms and custom solutions for specific tailor-made shops.

✓ Streamlined logistics and financial operations due to efficient distance calculations.

✓ Enhanced user experience based on real-time insights from user behavior analytics.