

Personalized Product Recommendation System

Team - Byte Force

A recommendation system for Qwipo

Transforming retail discovery through intelligent recommendations

Aman Kumar

(Team Leader)

Ankit Chandok

(Backend)

Divyanshi Verma

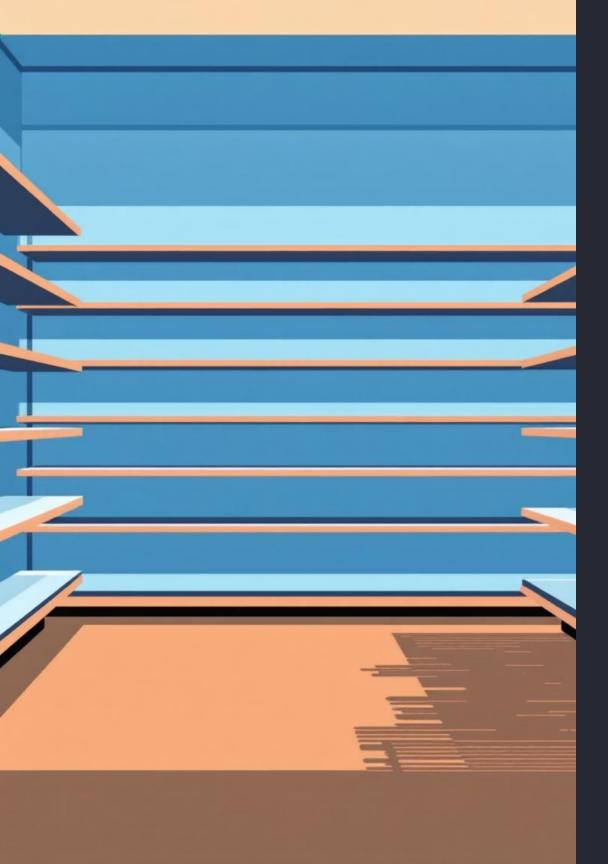
(Frontend)

Ayush Singh Patel

(Database Management)

Manas Dubey

(Data Collection)



The Challenge Facing Qwipo

Limited Discovery

Retailers miss 60%+ of relevant products, restricting inventory variety and growth potential

Repetitive Orders

Same products ordered repeatedly, missing cross-sell and upsell opportunities

Stagnant Growth

Average Order Value plateaued, limiting business expansion and revenue growth

Result: 35% retailer churn within 6 months → Qwipo loses revenue and engagement opportunities

Why This Matters Now



Retailers Struggle

Limited visibility into new products that could drive their business growth and customer satisfaction



Distributors Miss Out

Untapped inventory sits idle while potential sales opportunities remain undiscovered

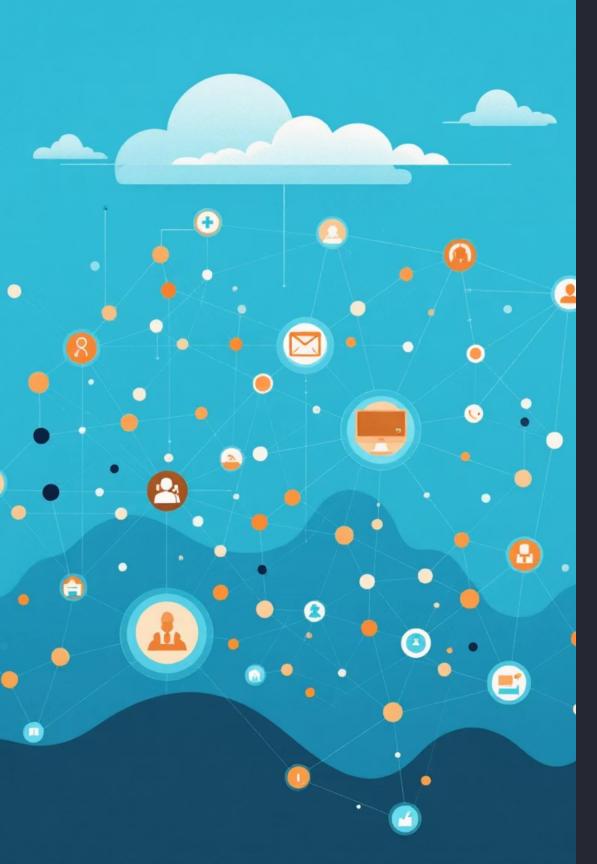


Qwipo Risks Trust

Platform loses competitive edge without intelligent product discovery capabilities

A smarter recommendation system creates a win-win-win scenario for retailers, distributors, and Qwipo





Our Solution: Hybrid Intelligence

Introducing the **Personalized Product Recommendation System** – a comprehensive prototype designed to revolutionize product discovery on Qwipo's platform

Smart Cross-Sell Bundles

Intelligently suggest complementary products that enhance customer value and increase basket size

Strategic Upsell Suggestions

Recommend premium alternatives and higher-value products based on retailer preferences and capacity

Intelligent Reorder Nudges

Proactive reminders based on purchase history, seasonal patterns, and inventory depletion cycles

Fresh Product Discovery

Region-specific recommendations tailored to business type – Kirana stores, restaurants, and specialized retailers

How Our Prototype Works

01

Data Collection

Aggregate order history, browsing patterns, and comprehensive product catalog information

02

Intelligent Processing

Hybrid engine combines collaborative filtering, content-based recommendations, and seasonal trend analysis

03

Smart Delivery

Clean, intuitive interface displays personalized suggestions with diversity controls to prevent repetition

Retailer data input

Order history and catalog

Personalized output

Tailored product suggestions

Personalized Product Suggestions Browsing & behavior

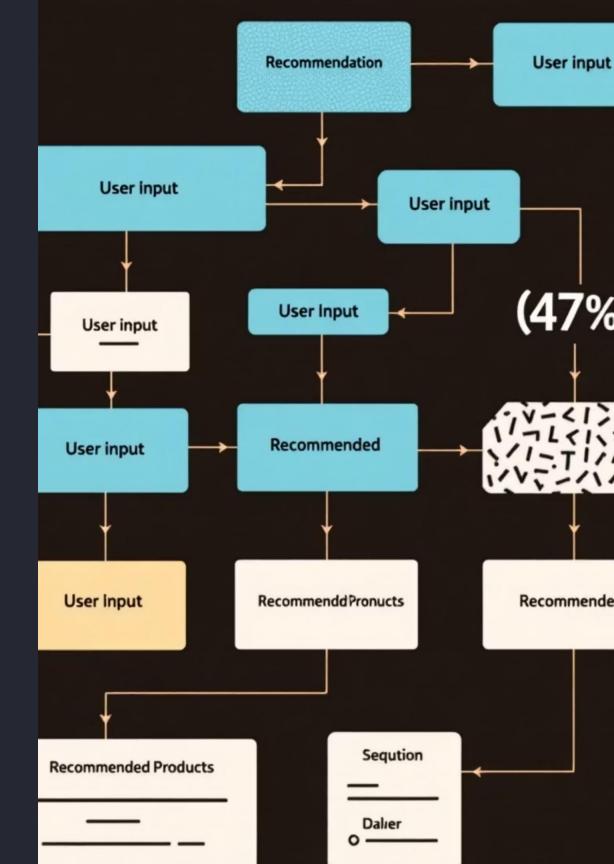
Session and clickstream logs

Model scoring

Collaborative and content signals

Recommendation engine

Hybrid processing pipeline



Team Expertise & Contributions





Deep analysis of Qwipo's platform challenges and comprehensive prototype roadmap development



Database Manager

Structured comprehensive retailer and order data architecture for optimal prototype performance



Frontend Developer

Crafted interactive user interface with intuitive retailer dashboard and seamless recommendation display



Backend Developer

Built sophisticated recommendation logic simulation with cross-sell, upsell, and reorder functionality



Product Specialist

Integrated detailed Qwipo product categories and catalog for authentic demo experience

Live Prototype Demonstration

Experience our interactive prototype showcasing the complete retailer journey:

1 — Retailer Login

Personalized dashboard with tailored welcome experience

2 — Smart Recommendations

Dynamic product cards with intelligent bundling suggestions

3 — Discovery Portal

Fresh product exploration with regional and category filters



Technical Architecture

Frontend Technology

- Interactive HTML, CSS, Tailwind, JavaScript prototype
- Responsive design for multiple devices
- Real-time recommendation updates

Backend Simulation

- Python, Django Framework recommendation scripts
- Machine learning algorithm simulation
- API-ready architecture design

Data Management

- Structured SQL/JSON datasets
- Qwipo product catalog integration
- Order history simulation
 - Prototype demonstrates
 feasibility and user
 experience flow, designed
 for scalable deployment



Projected Impact & Results

20%

25%

<20%

AOV Increase

Average Order Value
boost through
intelligent upselling
and strategic product
bundles

Repeat Purchases

Increased customer retention through personalized reorder nudges and discovery

Reduced Churn

Dramatic improvement from current 35% churn rate through enhanced engagement

The ripple effect: Retailers discover more variety → Distributors move inventory faster → Qwipo accelerates growth



Ready for the Next Level

Our Prototype Proves Feasibility

This intelligent recommendation system represents more than just a hackathon project – it's a blueprint for transforming Qwipo into a truly personalized, intelligent marketplace.

Retailers Win

Discover products that drive growth and customer satisfaction

Distributors Win

Move inventory faster with targeted, intelligent placement

Qwipo Wins

Build stronger market position through enhanced platform value





Ready to revolutionize retail discovery together