Persistent

Solution Sheet

Real-Time, Explainable Recommendations Using Knowledge Graph

Recommendation engines are increasingly becoming an inherent part of customer interactions with businesses across all channels with a direct impact on revenue. Product recommendations based on just similarities may look accurate, but are they able to convert prospects? Traditional recommendation systems that analyze a customer's purchase history and send out weekly recommendation emails are outdated and ineffective. To improve the likelihood of conversion, recommendation engines need real-time capabilities such as in-app and push notifications to deliver personalized recommendations to customers at the right time on the right channel.

While all product companies aspire to achieve this, the larger problem for them is integrating data in from customers, suppliers, and partners to deliver real-time recommendations. While the products need data in a predefined format governed by APIs or data models, the actual data provided is in a multitude of varying formats. They are left with the mammoth task of mapping the customer data in raw file formats or streams to standard data models that can be used to derive recommendations — a manual, error-prone and slow process.

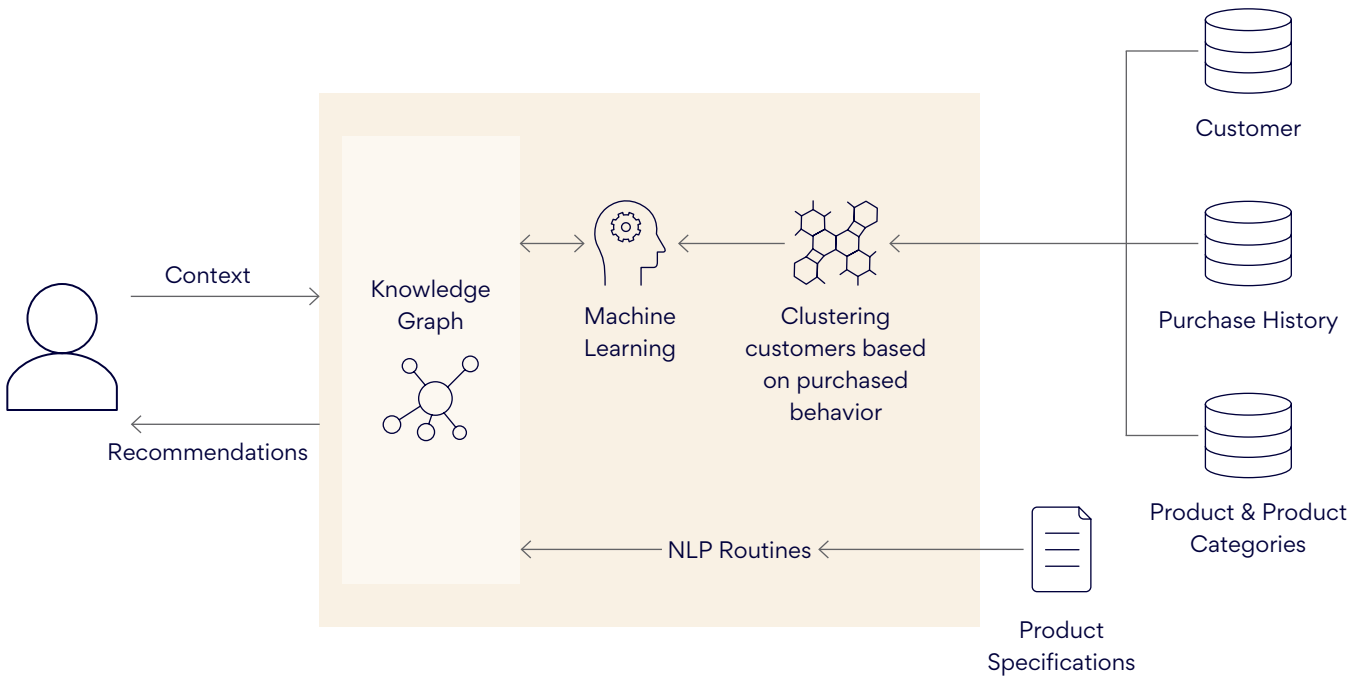|		
Identifying similar users and products to make recommendations becomes impractical as customers scale.	Batch-processed recommendations that take minutes or even hours to reach the customer tend to be ineffective.	Integrating data from multiple sources and transforming it into a format that can analyzed is a manual, slow, error-prone process.

Real-Time, Explainable Recommendations Solution Using Knowledge Graph

Persistent's real-time recommendation solution convert browsers into buyers with well-timed recommendations that mirror customer preferences. The solution finds items of interest based on past purchases, similar users, and related products while weaving in business-centric factors like profit margins, promotional prices, and overstock clearance.

The solution uses graph technology to integrate and connect data from all systems, scales effortlessly, and delivers lightning fast recommendations with an explanation to help businesses interpret the factors behind the recommendation.

How It Works

Context

Recommendations

Knowledge Graph

Machine Learning

Clustering customers based on purchased behavior

NLP Routines

Customer

Purchase History

Product & Product Categories

Product Specifications

Collaborative filtering

Recommend based on similar users or products

Content filtering

Recommend based on user history and profile

Rules-based filtering

Recommend using rules

Business strategy

Recommend based on business strategy (promotions, margin, investory)

Maximize conversions and revenue with real-time, explainable recommendations.

Request Demo

About Persistent

We are a trusted Digital Engineering and Enterprise Modernization partner, combining deep technical expertise and industry experience to help our clients anticipate what's next. Our offerings and proven solutions create a unique competitive advantage for our clients by giving them the power to see beyond and rise above. We work with many industry-leading organizations world-wide including 14 of the 30 most innovative US companies, 80% of the largest banks in the US and India, and numerous innovators across the healthcare ecosystem. Our company fosters a values-driven and people-centric work environment. Our strength of over 22,500+ employees is spread over 18 different countries across the globe.

USA
Persistent Systems, Inc.
2055 Laurelwood Road, Suite 210
Santa Clara, CA 95054
Tel: +1 (408) 216 7010
Fax: +1 (408) 451 9177
Email: info@persistent.com

India
Persistent Systems Limited
Bhageerath, 402
Senapati Bapat Road
Pune 411016
Tel: +91 (20) 6703 0000
Fax: +91 (20) 6703 0008

Persistent

www.persistent.com