databricks

Databricks Customer Story:
Banco Hipotecario

BANCO
Hipotecario

Data and ML creates a secure and personalized 21st century banking experience

Banco Hipotecario boosts customer lifetime value with Databricks

> "The best part is that we calculate that by using Databricks, we've saved around 90% of the cost of having a Spark cluster in our datacenter."
>
> **MATIAS J. STANISLAVSKY**
> **Head of BI and Advanced Analytics at Banco Hipotecario**

Banco Hipotecario, a leading Argentinian commercial bank, is on a mission to reduce customer risk and provide an experience that will increase retention and loyalty. Key to this strategy is to leverage machine learning to deliver new insights and services that will delight customers and create upsell opportunities. With a legacy analytics system that was rigid and complex to scale, they turned to Databricks to unify data science, engineering, and analytics. As a result, they were able to significantly increase customer acquisition and cross-sells while lowering the cost for acquisition, greatly impacting overall customer retention and profitability.

INDUSTRY
Financial services

SOLUTION
• Customer 360
• Personalized experience
• Recommendation engine

TECHNICAL USE CASE
• Data ingest and ETL
• Machine learning
• SQL analytics

90% INCREASE IN CROSS-SELL OF NEW PRODUCTS, IMPROVING CUSTOMER RETENTION AND PROFITABILITY

35% REDUCTION IN COST OF ACQUISITION, ALLOWING THEM TO DO UPSELLS AND CROSS-SELLS TO ALL THEIR CUSTOMERS

Legacy analytics tools are slow, rigid, and impossible to scale

Banco Hipotecario set forth to increase customer acquisition by reducing risk and improving the customer experience. With data analytics and machine learning anchoring their strategy, they hoped to influence a range of use cases from fraud detection and risk analysis to serving product recommendations to drive, up-sell and cross-sell opportunities and forecasting sales.

Like most traditional companies, Banco Hipotecario faced a number of the challenges that often come along with outdated technology and processes: disorganized or inaccurate data; the inability to innovate and scale; resource intensive workflows, — the list goes on.

Existing data teams, including the data engineers and analysts to data scientists, also found it difficult, and sometimes impossible to collaborate and leverage the data for their specific needs from business intelligence to model training. They had a traditional analytics tool running on SQL databases and their data warehouse was not well organized and complicated. Their data scientists were slowed by disparate data sources and the inability to scale machine learning due to single-node limitations.

Banco Hipotecario knew that if they wanted to shift with the times, as they'd done for decades, they'd need to overhaul their existing tech stack and empower their data team with the tools to be productive and innovate.

> "In order to execute on our data analytics strategy, new technologies were needed in order to improve data engineering and boost data science productivity," said Daniel Sanchez, Enterprise Data Architect at Banco Hipotecario."The first steps we took were to move to a cloud-based data lake which led us to Azure Databricks and Delta Lake."

A unified platform powers the data lake and easy collaboration

Banco Hipotecario turned to Databricks to modernize their data warehouse environment, improve cross-team collaboration, and drive data science innovation. Fully managed in Microsoft Azure, they were able to easily and reliably ingest massive volumes of data, spinning up their whole infrastructure in ninety days: Delta Lake, ETL pipelines, integration with Azure's Data Factory, MLOps and DataOPs, drastically improving workflows for downstream analytics and machine learning.

Today they no longer waste time managing and configuring clusters. With Databricks' automated cluster management capabilities, they are able to scale clusters on-demand to support large workloads.

> Delta Lake has been especially useful in bringing reliability and performance to Banco Hipotecario's data lake environment. With Delta Lake, they are now able to build reliable and performant ETL pipelines like never before.

"We work at a bank and our transactions can be rejected, or turned down a couple of days after the transaction has been completed," explained Sanchez. "In a traditional data lake, when you try to do an upsert, you need to delete a file and rewrite it. Now with Delta Lake, we just make upserts and let the engine work to make all the necessary changes on the files."

Meanwhile, performing SQL analytics on Databricks has helped them to do all of the data exploration, cleansing, and generation of datasets in order to create models, enabling the team to deploy their first model within that first 3 months, and the second model generated was off to the races in just two weeks.

At the same time, Data scientists were finally able to collaborate thanks to interactive notebooks, meaning faster builds, training, and deployment. And MLFlow streamlined the ML lifecycle and removed the overreliance on data engineering.

"Databricks gives our data scientists the means to easily create our own experiments and deploy them to production in weeks, rather than months," said Miguel Villalba, Head of Data Engineering and Data Science.
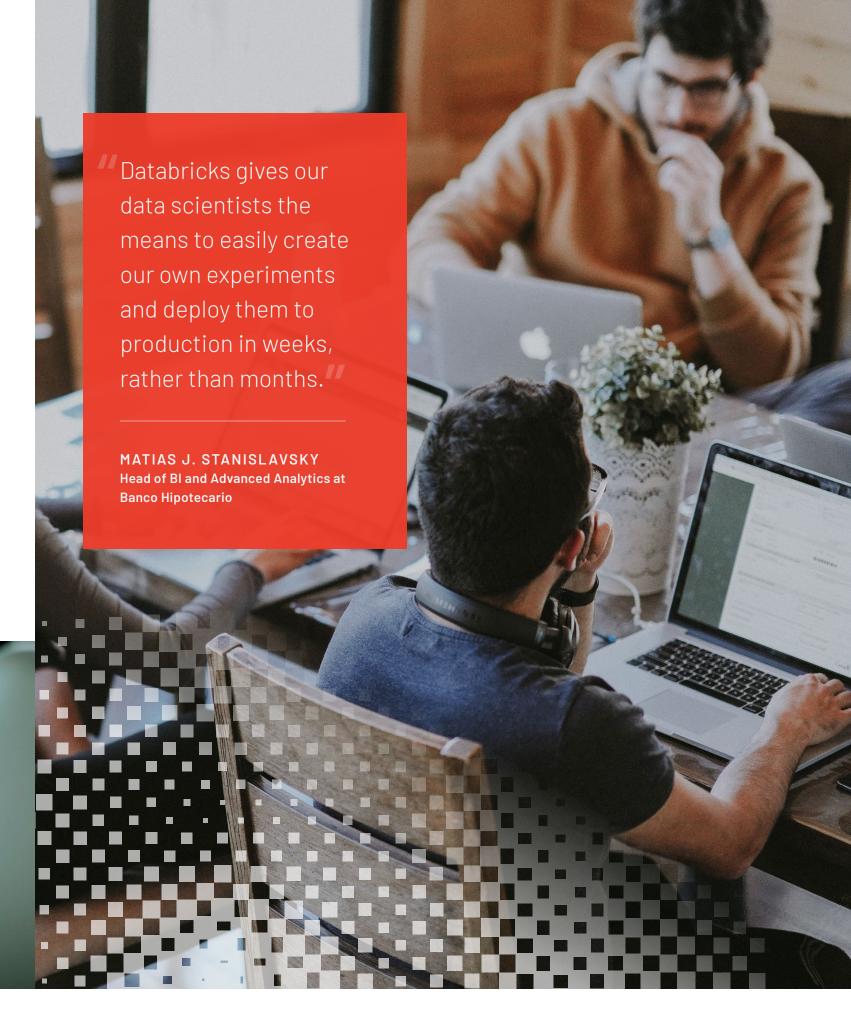
An efficient team maximizes customer acquisition and retention

Since moving to Databricks, the data team at Banco Hipotecario could not be happier as it has unified them across functions in an integrated fashion. From an architectural perspective, Azure Databricks has greatly simplified their entire data analytics ecosystem and end-to-end data workflow.

'Databricks has been a game changer," expressed Stanislavsky. "It has empowered our entire organization with the same technologies that the top companies in the world are using to innovate.'

The results of data unification, and markedly improved collaboration and autonomy cannot be overstated. Since deploying Databricks, Banco Hipotecario has increased their cross-sell into new products by a whopping 90%, while machine learning has reduced the cost of customer acquisition by 35%.

Stanislavsky concluded, "The knowledge and capabilities that we've gained has been simply awesome. From using PySpark to the integration with Azure, we are a completely different organization now."

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About Databricks

Databricks is the data and AI company. Thousands of organizations worldwide —including Showtime, Shell, Conde Nast and Regeneron — rely on Databricks' open and unified platform for data engineering, machine learning and analytics. Databricks is venture-backed and headquartered in San Francisco with offices around the globe. Founded by the original creators of Apache Spark™, Delta Lake and MLflow, Databricks is on a mission to help data teams solve the world's toughest problems. To learn more, follow Databricks on Twitter, LinkedIn and Facebook.

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