



CASE STUDY

Database Development For A Fintech Application



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Client Background

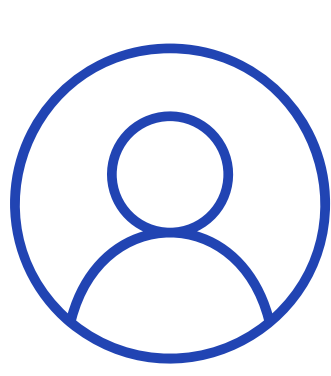
The client is an investment platform focused on creating socioeconomic impact for minority communities across America, striving to build a more inclusive economy through financial innovation. Led by women, their goal is to significantly benefit underserved communities and small businesses economically. They are committed to closing the wealth gap and expanding economic opportunities for all. To achieve their mission, they sought to collaborate with like-minded companies and assemble a diverse development team.

Project Overview



Details

Type of service: Staff Augmentation
Technologies: AWS, MySQL, Metabase, Python, PySpark, AWS Glue
Platforms: AWS
Methodology: Agile
Duration of project: 9 months



Diversity Metrics

3 Women | 3 Men
Geographically located: Argentina & Uruguay
Ages: 25 - 45



Challenges Presented / The Goals

The principal challenge to focus on, aligning with the client's objective of promoting economic inclusion, was the **transition from manual data analysis to automated processes while ensuring accessibility and usability** for all users, including those from underserved communities.

This encompasses not only technological challenges but also engaging stakeholders to adopt a new approach to data management. By doing this well, the client can make financial insights and opportunities more accessible to everyone, helping them achieve their goal of economic inclusion and empowerment.

From our end, the primary goal was to **modernize the database infrastructure** to enable more advanced analytics capabilities. This entails overcoming technical challenges associated with transitioning to automated processes while ensuring data integrity, security, and accessibility for all users, including those from underserved communities.

The Solution

When tasked with elevating the client's investment platform, our team embarked on a journey to optimize the data management, ensuring not only compliance but also paving the way for growth opportunities in the future through better decision making.

Laying the Foundation: Documentation, Processes, and Tool Selection

At the onset, meticulous attention was paid to documenting processes, depicting data flow charts, and outlining comprehensive requirements. Understanding the problems our stakeholders needed solved was crucial, as it laid the groundwork for seamless collaboration and project alignment.

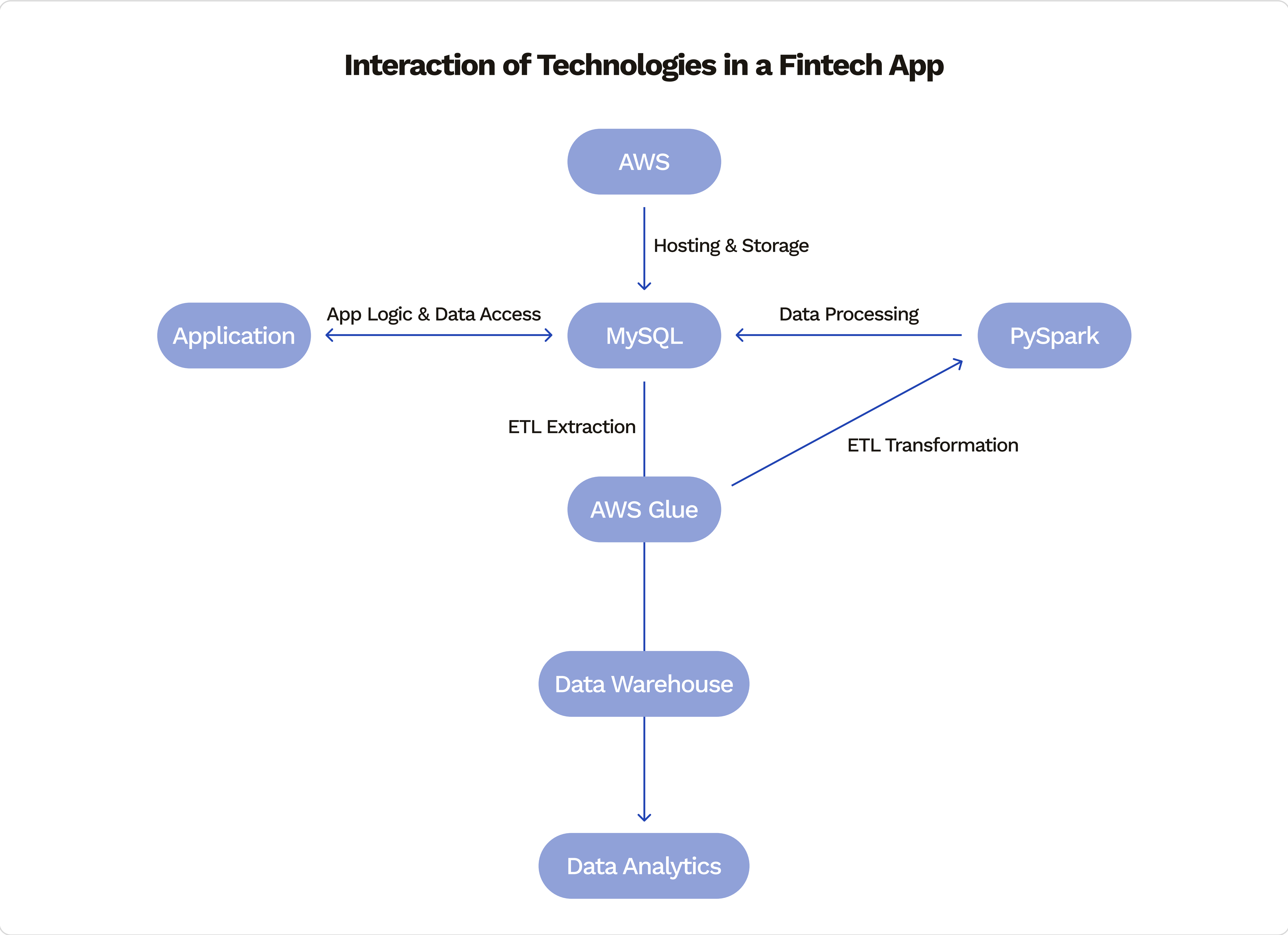
During the implementation phase, strategic tool selection became instrumental. Leveraging AWS for data orchestration and extraction was a natural choice, considering the client's existing infrastructure and familiarity. Similarly, opting for a new instance with MySQL, albeit requiring product adjustments, was essential for modernizing analytics capabilities and ensuring scalability.



Navigating Technical Challenges: Maturity and Evolution

One of the most significant hurdles we encountered was transitioning from manual data analysis to automated processes. Our team advocated for a nuanced approach, emphasizing the critical importance of data integrity and security considerations. It was imperative to ensure that every decision aligned with the overarching mission of the project while meeting the evolving needs of the client's business landscape.

Despite challenges, our team's meticulous assessment led to prudent decisions. While MySQL version constraints necessitated product modifications, we navigated them adeptly to maintain project timelines and deliverables. The adoption of Metabase for the reporting layer further streamlined analytics, empowering stakeholders with actionable insights.



This is a visual representation to help in understanding the workflow and integration of these technologies for a fintech app



Protecting Sensitive Assets: Security at the Forefront

As a fintech, our client's data is synonymous with utmost sensitivity and confidentiality. With biometric data and other proprietary information in play, stringent security measures were non-negotiable. Collaborating closely with our DevOps specialists, we ensured robust protection at every stage of production, safeguarding client assets and instilling trust.

Empowering Financial Inclusion: Impactful Insights for Growth

In the realm of fintech, data isn't just about numbers—it's about driving meaningful impact and fostering economic inclusion. By harnessing the power of data, we empower our client to uncover resources, fueling informed investment decisions and bridging the wealth gap one transaction at a time.

“ Our client expressed deep gratitude for our support in navigating difficult decisions. By leveraging our expertise in data analysis, we uncovered numerous opportunities for insightful analysis, significantly enhancing their decision-making process.

”

BI Data Engineer

Results

Looking ahead, our focus is on integrating company data with public US records to elevate the accuracy and relevance of information within the application. Previously, this process was done manually by the frontend team, but with the new data integration, it will be automated similarly to how the Personalized Impact Metrics (PIM) are handled. This strategic move not only ensures that users have access to the most up-to-date and comprehensive data but also enhances the overall usability and effectiveness of the platform.

We undertook a comprehensive reassessment of team roles to better align with emerging data needs that have surfaced as a result of our frontend success. By refining and optimizing role distribution, **we streamlined workflows and maximized the utilization of resources, ultimately driving greater efficiency and effectiveness in achieving our mission.**

This forward-thinking approach underscores our commitment to continuous improvement and innovation, ensuring that our application remains at the forefront of delivering impactful solutions for users and stakeholders.

Contact Us

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