

# Simplifying the efficient data collection & visualization using low-code platforms

## ABOUT CLIENT

- A prominent educational institution in Africa, operating a network of branches across various regions and maintaining a presence in over 100 different schools.
- Under a mission to modernize their administrative processes, they've adopted contemporary approaches to stay ahead in the education sector

## PROBLEM STATEMENT

Our client had identified the need for a centralized solution to streamline administrative tasks, enhance data security, and simplify data management across their diverse network of branches. They faced several significant challenges:

- **Scattered data:** Managing a multitude of data types across multiple schools with varying formats and structures resulted in data inconsistencies and operational inefficiencies.
- **Compliance Issues:** Ensuring that only authorized personnel had access to specific functionalities and sensitive data presented security and compliance challenges.
- **Scalability Concerns:** The client faced the challenge of making the application easily scalable and flexible for future branch growth without causing disruptions.
- **Prone to Errors:** Administrative processes were primarily manual, leading to inefficiencies, errors, and delays in their operations, causing them significant difficulty in operations.
- **Data Management Complexity:** Data was dispersed across various systems, making it cumbersome to access and consolidate for effective decision-making.
- **Security Concerns:** Due to the decentralized nature of their operations, the client had significant concerns about data security, which posed challenges they needed to address.

Education & EdTech

- Data Warehousing,
- Power BI,
- Power Platform

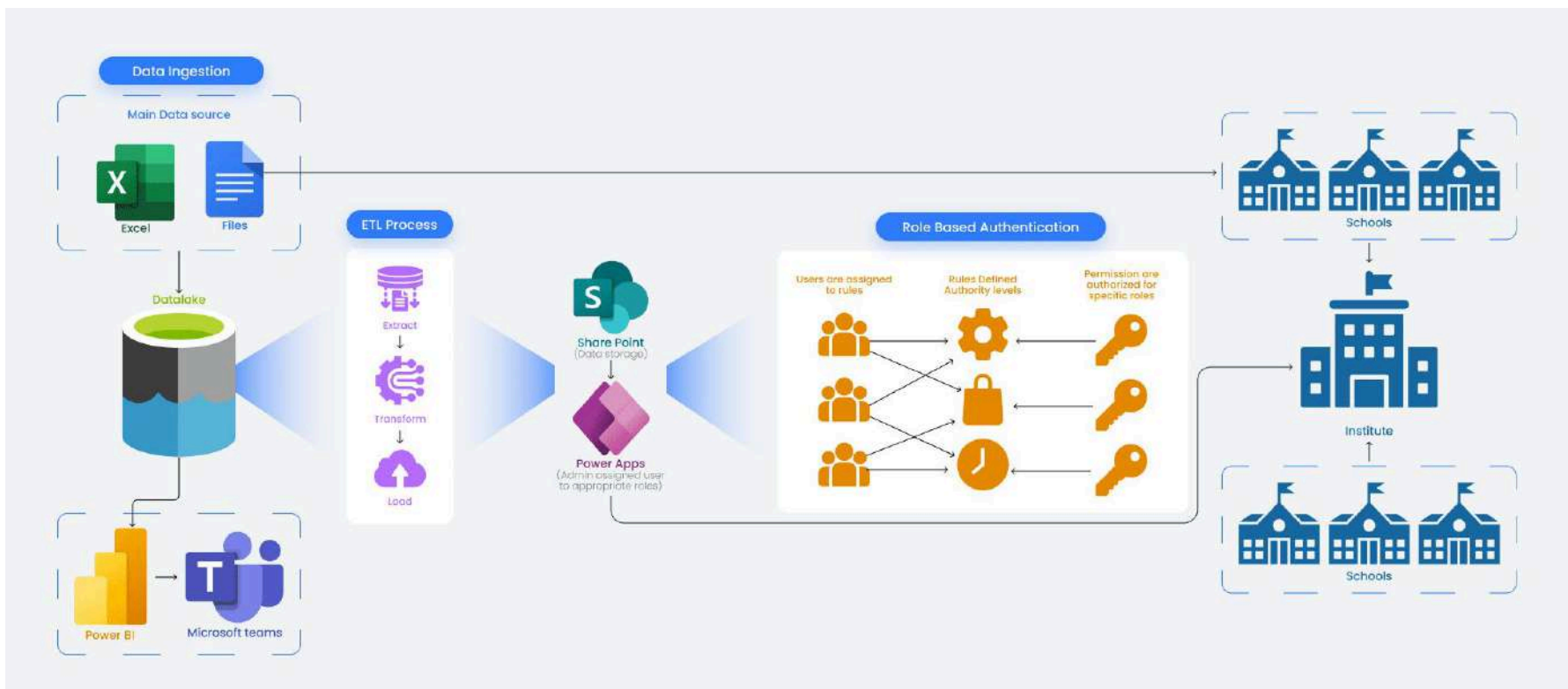
Africa

- IT and Technology Support

Joint Product Development Framework

## SOLUTION

To tackle these challenges effectively, Our developers advised cost-efficient, low-code custom app development for seamless data capture. We then leveraged Power BI for analysis and integrated it with MS Teams, enhancing data-driven collaboration. We also implemented:



### (Solution Architecture)

- **End-to-end Digital Transformation:** DataToBiz introduced a Centralised Student Information System (SIS) as part of a digital transformation to streamline administrative tasks, enhance data security, and ensure data consistency.
- **SIS for Centralization:** Our developers successfully implemented a Centralised Student Information System (SIS), providing real-time data updates and efficient enrollment management to enhance data centralization and operational efficiency.
- **Custom Application Development:** Our specialized development team created a highly tailored application using a low-code development platform, perfectly aligned with the unique requirements of the institution.
- **Role-Based Authentication (RBA):** The application incorporated an advanced RBA system, allowing precise control over user permissions, ensuring data security, and strict adherence to regulatory compliance.
- **Flexible Data Structuring:** We implemented a dynamic data structuring mechanism to accommodate various data types while maintaining data integrity and consistency.
- **Scalability Planning:** The application's architecture was meticulously designed with scalability in mind, ensuring seamless expansion with the addition of new branches.
- **Technologies and Tools Used:** SharePoint, PowerApps, PowerBI, Excel, and CSV were the key tools harnessed by our team to craft and implement these innovative solutions.

## BUSINESS IMPACT

The successful development and implementation of a role-based authentication and data structuring application by the company has led to a transformative impact on education management. This case study demonstrates the potential of technology in modern educational administration.

- **Efficient Data Management:** The application streamlined data entry, storage, retrieval, and analysis, significantly reducing manual effort and minimizing errors for the company.
- **Enhanced Security:** Role-based authentication granted the company granular control over user access, fortifying data security and ensuring compliance with privacy regulations.
- **Structured Data:** Data was organized cohesively, facilitating reporting, analytics, and data-driven decision-making processes, enhancing overall efficiency for the company.
- **Seamless Expansion:** The application effortlessly scaled as the company expanded, accommodating new branches without interruptions, thereby supporting growth.
- **High User Adoption:** Comprehensive user training and support ensured widespread adoption for the client, maximizing the application's benefits and ultimately contributing to the company's thriving success.
- **Accelerated Data Entry:** The overall data entry and management time was reduced drastically, shifting from days to mere minutes, revolutionizing operational efficiency. The client enabled a complete digital shift in their education management, exemplifying the potential of technology in modern educational administration.