



DATA HUB

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Today's Agenda:

1. Environment
2. Requirements
3. Personas
4. Architecture
5. Expected Benefits
6. Next steps

Environment



FIRST

Decentralization can impact operational efficiency in several ways. Dispersed data and systems result in fragmented processes, hindering agile and informed decision-making.



SECOND

Try to keep each one short—focused on the most essential information—so it's easy to scan and remember. The more text you include, the trickier the slide is to scan. So don't hesitate to edit, chop, and slash.

When information is scattered, the time spent searching for and consolidating data increases significantly.

Requirements

- **FIRST**
Integrate and centralize data from all sources
- **SECOND**
Provide dashboards for student performance, financial history, attendance, and health visits.
- **THIRD**
Ensure responsive and secure dashboards with Row-Level Security.



Personas

TEACHER

Fills out observations in SharePoint and consults class dashboards.

Pains: Completes multiple manual spreadsheets; time-consuming data consolidation.

Needs: Simple interface and ready-to-use class reports.

COORDINATOR

Consolidates data from multiple classes and monitors indicators.

Pains: Lacks a consolidated view.

Needs: Comparative and evolution reports.

ADMINISTRATIVE STAFF

Tracks financial history and student attendance records.

Pains: Difficulty correlating payment data with academic performance.

Needs: Clear indicators of delinquency and its impact on attendance.

Architecture

The architecture of the Academic Data Hub is designed to integrate heterogeneous data sources into a unified platform, ensuring scalability, governance, and compliance with LGPD.

It follows a layered approach, from data ingestion to visualization, with strict security controls.

Data Soucer

ETL/ Data Ingestion Layer

Data Lake

Data Warehouse

Analytics Layer



DataSoucer

Data originates from different operational and academic systems:

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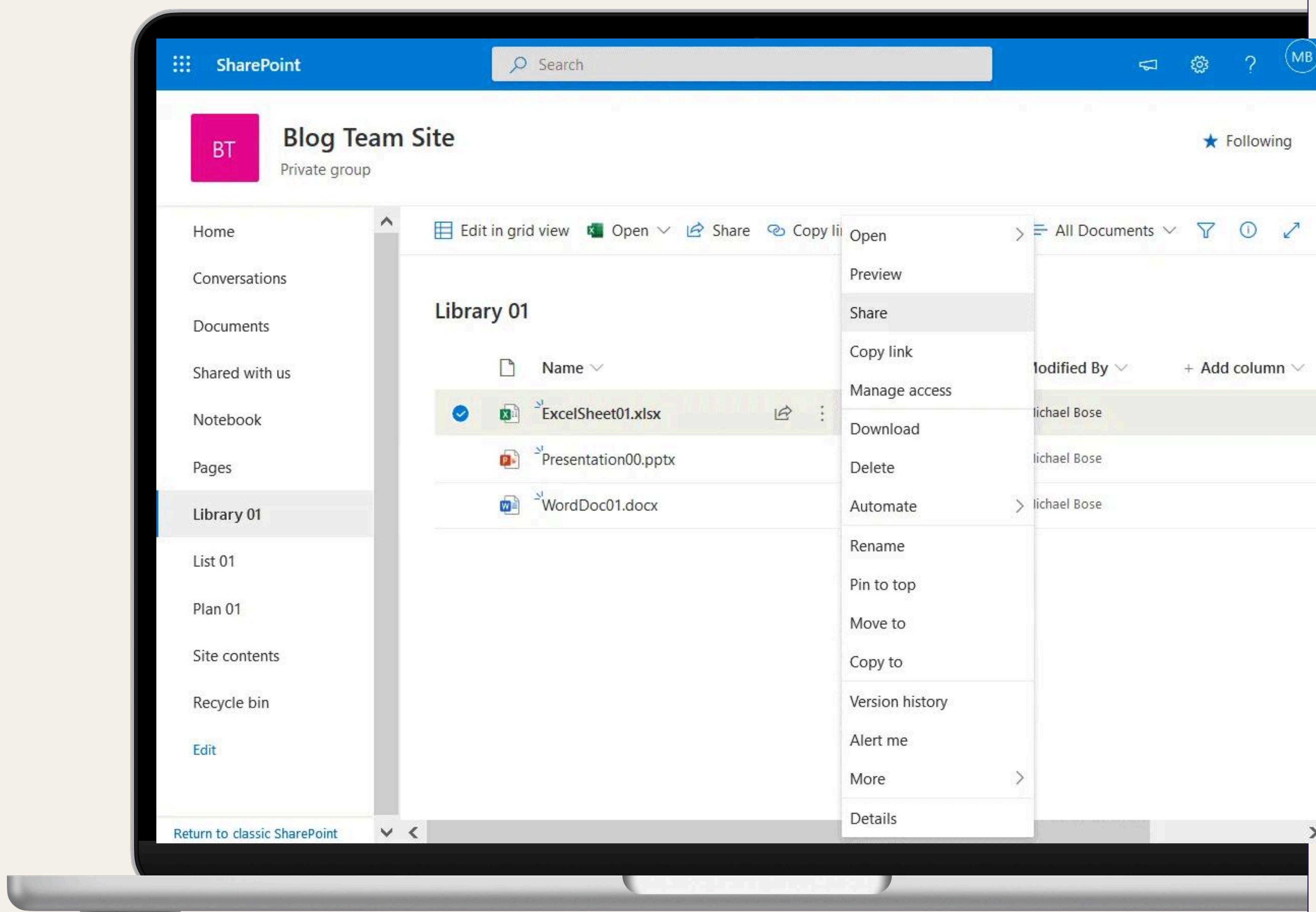
- SharePoint: Teachers submit qualitative observations, student notes, and attendance annotations.
- Secretary's Office Systems: Academic records, financial history, tuition payments, and outstanding balances.
- Infirmary Logs: Records of student visits, medical occurrences, and health notes.
- Turnstile Systems: Student entries, exits, late arrivals, and absence data.
- External Files & Systems: Complementary data in Excel, CSV, or third-party platforms.

User Experience

SharePoint

We chose SharePoint as the primary interface for teachers because it is already part of their daily workflow.

Since they are familiar with its environment, there is no steep learning curve or need for extensive training. This approach minimizes resistance to adoption, reduces errors in data entry, and ensures a smoother transition to the new integrated reporting system.



Next steps

M14

Data connectors
and backend APIs

M15

KPIs and aggregated views are
generated in the Analytics Layer.

M16

Testing, validation and
documentations

Thank you!

