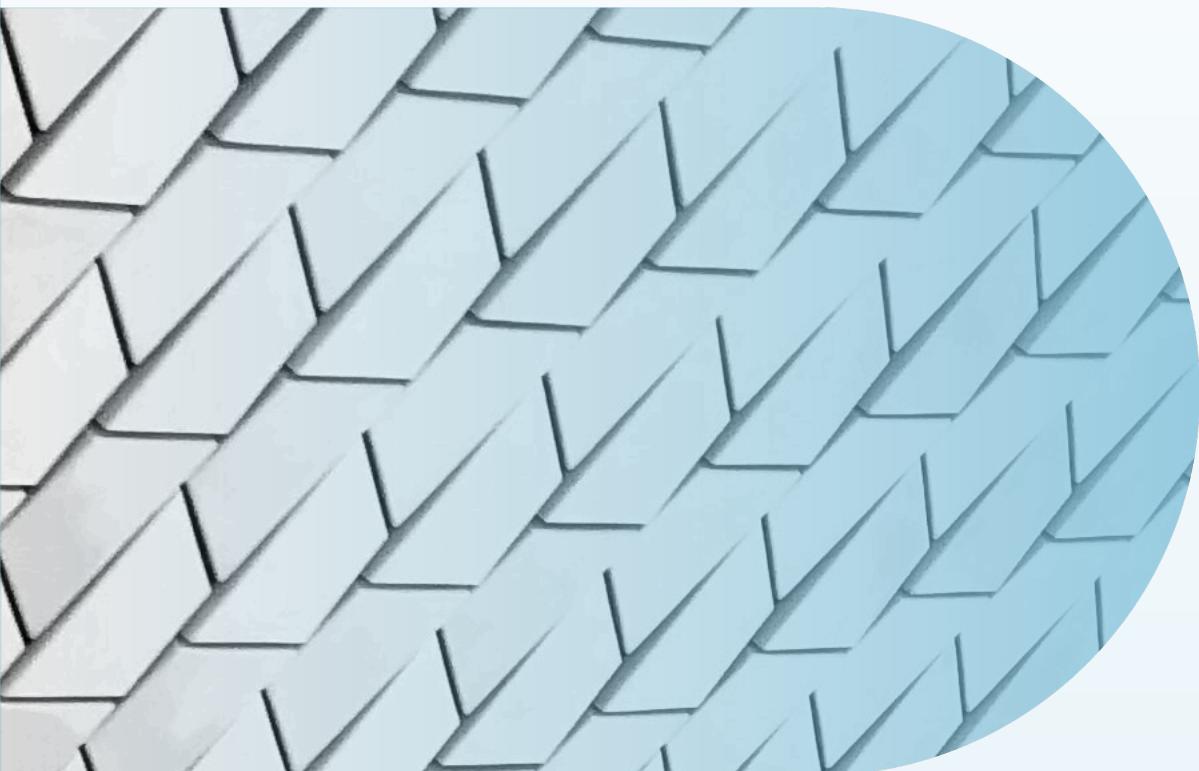**Bytecode Case Study:**

Bold Charter School

Based in New York City, Bold Charter School has a mission to build world-class K–12 public schools that graduate students who are accomplished both intellectually and personally, and prepared to lead self-determined lives.

The Opportunity: Transform Education with Data-Driven Insights

In order to maximize the potential of its students, Bold Charter School has set out to create a rigorous, knowledge-driven curriculum that creates new pathways for students to access challenging content and develop the skills they need for college and beyond.

To support this mission, Bold Charter School leverages data-driven insights to enhance student outcomes and improve staff productivity. By making data more accessible, administrators and teachers can make more informed decisions when crafting lesson plans, managing student performance, and optimizing resources.

With dozens of fragmented data sources spread across its school management platform, student information system, and various spreadsheets, Bold Charter School struggled with a time-consuming and error-prone manual process that prevented staff from being able to easily view key metrics or leverage real-time analytical insights. To make matters worse, the school's data manager was due to leave their position at the end of the school year, leaving no one available to manage the process.

In order to build a more sustainable future, Bold Charter School decided to automate its data collection and visualization workflows. But with time short, the school knew it would need to rely on the expertise of a data partner.

The Solution: BigQuery, Looker + Bytecode IO

In order to build a best-in-class data program, Bold Charter School chose Google Cloud Platform's BigQuery for its ability to provide a scalable, cloud-based data warehouse capable of centralizing all its data sources. It also selected Looker Studio as its visualization platform so that teachers and administrators could easily create custom dashboards without requiring help from technical staff, improving the organization's collective ability to make data-driven decisions.

To accelerate its time to value and overcome the loss of its data manager, Bold Charter School selected Bytecode IO, the #1 Google Cloud Platform data partner. Thanks to Bytecode IO's deep expertise with BigQuery and Looker, Bold Charter School was able to significantly reduce the time required to automate its data analytics workflow.

Bytecode IO worked closely with Bold Charter School to understand the school's goals, and then designed and implemented a streamlined data ingestion process that collected all its disparate data sources in BigQuery.

Bytecode IO then connected BigQuery to Looker Studio, which enabled staff to create tailored dashboards for key metrics like student attendance, recruitment, and enrollment.

The Results: Improving Student Insight

Thanks to Bytecode IO, BigQuery, and Looker Studio, Bold Charter School was able to implement dashboards in time for the upcoming school year, creating a foundation for success.

- With real-time data at their fingertips, teachers and administrators can now rapidly identify school-wide trends, allowing staff to be proactive instead of reactive.
- By improving the school's ability to track attendance, monitor student progress, and manage enrollment efficiently, the school was able to improve its intervention speed and increase its operational efficiency.
- Real-time student attendance and performance metrics allow staff to target the support they provide and make instructional adjustments, increasing student retention and improving academic outcomes.
- By automating its data collection and ingestion process, Bold Charter School was able to eliminate all manual uploads, saving hours each week while significantly reducing the risk of errors.
- Bytecode IO provided tailored training sessions for teachers, IT staff, and the operations manager so they would be able to independently build and maintain Looker Studio dashboards, allowing the organization to continue to advance its analytics capabilities even after the engagement concluded.
- Thanks to this training, Bold Charter School is able to own and evolve its data strategy while delivering ROI through increased time savings and enhanced analytical capabilities.
- The staff has identified new opportunities to further integrate data into its decision-making process, enabling a culture of continuous improvement.

Results At A Glance:

Unified data systems into BigQuery for real-time insights and improved decision-making

Automated data ingestion to save time, reduce errors, and empower staff with self-service analytics

Developed dashboards in Looker Studio to enhance visibility into key metrics like attendance, student performance, and enrollment trends