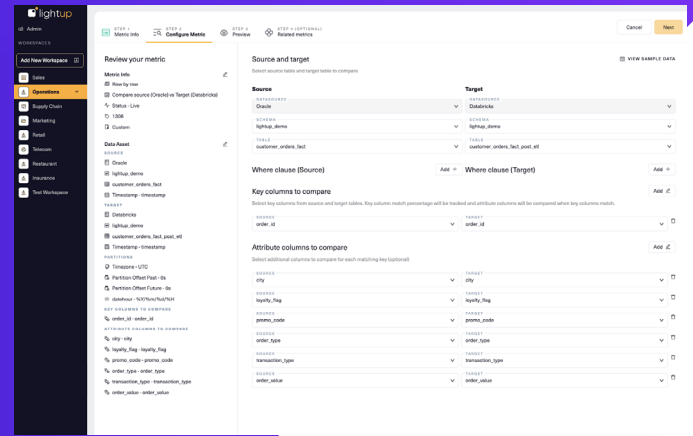# Data Reconciliation

Data Reconciliation enables data to be compared from different data sources in order to identify any data discrepancies — a critical process that helps ensure high Data Quality, especially for Cloud migrations or data pipeline validation.

Data breaks all the time. Sometimes for no reason. And when data is in motion — moving from different source systems to various destinations — data is especially prone to errors.

That's why Data Reconciliation is a critical process in maintaining high Data Quality.

With Lightup, enterprise teams can run row-by-row comparisons or Data Reconciliation checks across different data sources — without writing Python scripts or complex coding.

Key Use Cases

The two most common use cases for Data Reconciliation are Cloud migration and data pipeline validation.

By leveraging Data Reconciliation in Lightup, enterprise organizations can easily understand where data discrepancies exist and prevent them from percolating throughout data pipelines, mitigating the risks of downstream escalations.

Data Pipeline Validation

Most enterprises move and/or transform their data, either across data sources, within a data source, or simply by adding new data to a source system. As data is moved and transformed, every handover increases the potential for data mutation and discrepancies. Lightup's Data Reconciliation checks help ensure proper data migration, highlighting any disparities for a robust validation process.

Cloud Migration

Enterprise organizations are still migrating from on-premises Data Warehouses to Cloud Data Warehouses or Lakehouses in order to leverage advanced data science, artificial intelligence (AI)/machine learning (ML), and analytic capabilities.

Lightup's Data Reconciliation checks help alleviate uncertainties about unfamiliar data by pinpointing disparities between on-premises and Cloud systems, increasing user trust and facilitating smoother Cloud migrations.

Key Benefits

Increase Data Trust

By comparing data based on key and targeted columns, Lightup enhances data accuracy and consistency, increasing data trust and user adoption of Cloud systems.

Simplify Reconciliation Processes

Lightup's user-friendly interface makes it easy for users to interpret the results and take action. With the side-by-side source and target setup, Lightup shows the number of values for each and a comparison of the percent match rate.

Enhance Data Security

Lightup ensures that sensitive data remains protected by discarding raw data after comparison.

Enable Flexible Customization

Lightup's flexibility allows you to tailor the reconciliation process to your specific business needs.

Optimize Efficiency

Lightup streamlines the reconciliation process, saving time and resources by automating data comparison.

Improve Decision-Making

Reconciled data increases the reliability and trustworthiness of data, leading to better decision-making and insights.
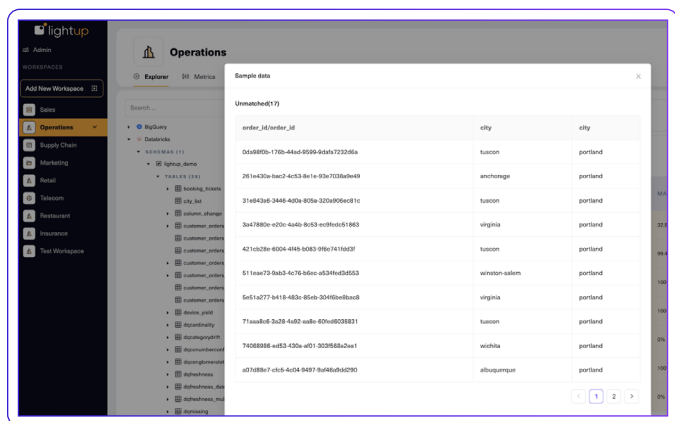
How It Works

Lightup's low-code Data Reconciliation checks simplify the process of comparing data from disparate sources.

Key and Target Columns Comparison

Lightup gives you the flexibility to focus on the specific data points that matter most to your reconciliation process. Simply specify the key column — a unique identifier to match records across datasets — and related target columns to check any discrepancies in the datasets.

Local Data Comparison

Using sophisticated algorithms to analyze data and identify discrepancies or differences in target columns, Lightup processes data locally to optimize efficiency, eliminating the need to transfer data between different sources.
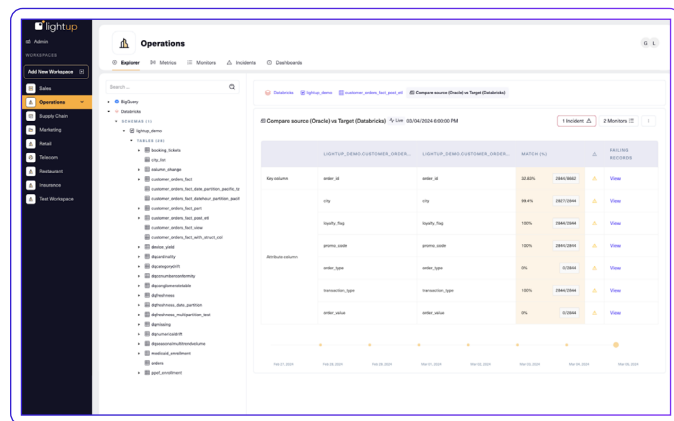
Percentage Matching

Lightup shows the percentage of matching data between the columns in the tables.

For discrepancies, Lightup provides the key, source value, and target value, enabling users to quickly understand what to fix and where.

Extracting Relevant Data

To minimize the volume of processed data and maximize the efficiency of the reconciliation process, Lightup extracts the relevant data from tables or datasets and prepares it for comparison after the key and target columns are selected.

Discarding Raw Data

Lightup discards the raw data used for comparison so your original datasets aren't exposed or stored, mitigating potential security risks and compliance concerns.

Resources

See how Data Reconciliation works in Lightup,
request a free demo or start a free 30-day trial today.

▶ **Watch Demo**

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