

Must know terms for data quality and observability

Key concepts for ensuring reliable data

DATA QUALITY DIMENSIONS



Data accuracy:

The degree to which data is factually correct and precise



Data completeness:

Whether all data fields required are available



Data consistency:

The degree to which data does not conflict across sources



Data validity:

The degree to which data conforms to the expected format, type and range



Data uniqueness:

Number of distinct values and duplicate data records



Data freshness:

Whether the data is up-to-date and reflects the current state of affairs

DATA QUALITY MONITORING AND VALIDATION



Data quality rule:

The technical code used to measure and validate data against metrics and thresholds



Data profiling:

The process of analyzing data to gather information about its structure, attributes and quality



Anomaly detection:

The process of identifying patterns in data that are outside the normal ranges



Schema drift:

Columns and data types that have been added, removed or changed in data sources



Duplicate detection:

The process of identifying entities in multiple records and linking them together



Data reconciliation:

The process of validating source and target data match after data movement



Data quality and observability:

Data quality and observability is the process of monitoring and validating data quality across applications, data pipelines, and data stores, and notifying stakeholders when data does not meet quality standards.