Complete Flow with MinIO

STORES

(Inventory Scans)   (POS Sales)

Real-time events

PIPELINE

Kafka

Process stream

Spark

INTELLIGENCE

Airflow

Train models

MLlib

Aggregated data   Raw data storage   Write predictions   Save models

ClickHouse   MinIO

MinIO = Data Lake
- Raw data (cheap)
- ML models (versioned)
- Features (reusable)

Dashboards   Query data   Load models

RESULTS

Power BI   FastAPI