LEAN TECHNIQUES

WHERE DO YOU GO NEXT WITH YOUR DATA?

Simple Data Maturity Assessment

To assess the maturity of your data and AI capabilities, we evaluate five core dimensions:

1. **Data Infrastructure & Integration**
2. **Data Governance & Quality**
3. **Team Skills & Collaboration**
4. **AI/ML Integration & Experimentation**
5. **Scalability & Future-Proofing**

Measure your data maturity and uncover clear next steps for transforming your data strategy. This tool helps you assess where you are today, identify opportunities for improvement, and chart a course for driving greater business impact through data.

For each question, score your organization on a scale from 0 to 2. Add up the scores across all dimensions for your total maturity score, with a maximum possible score of 10.

Assessment Questions & Scoring

DATA INFRASTRUCTURE & INTEGRATION

Is your data centralized (e.g., in a data lake/lakehouse) and accessible across teams?

- **+0** Data siloed in spreadsheets/departments.
- **+1** Some centralization (e.g., cloud storage), but teams still work in silos.
- **+2** Fully integrated data platform (e.g., Delta Lake, OneLake) with shared access across teams.

DATA GOVERNANCE & QUALITY

Do you have standardized metadata, quality checks, and lineage tracking?

- **+0** No formal governance, inconsistent metadata, and unreliable data quality.
- **+1** Basic governance with documentation, but no automation for quality checks or lineage tracking.
- **+2** Automated data quality checks, governance tools and end-to-end lineage tracking.

TEAM SKILLS & COLLABORATION

Can your team build end-to-end data pipelines and deploy ML models?

- **+0** Team lacks technical expertise, heavily reliant on vendors or external support.
- **+1** Team has basic skills (e.g., SQL, Python) but lacking advanced ML or pipeline automation.
- **+2** Team can build scalable data pipelines, deploy ML models, and manage MLOps workflows independently.

AI/ML CAPABILITIES

Are you running production ML models or only prototyping?

- **+0** No ML experimentation.
- **+1** ML experimentation is limited to prototypes, but not deployed in production.
- **+2** ML models are deployed in production with monitoring and lifecycle management (e.g., MLflow, SageMaker).

SCALABILITY & FUTURE-PROOFING

Can your infrastructure handle 10x data volume and real-time use cases?

- **+0** Struggles with workloads, no clear path for scaling.
- **+1** Scales for batch workloads.
- **+2** Serverless/auto-scaling (e.g., Spark, Redshift).

WHAT'S YOUR DATA MATURITY STAGE?

Calculate your total score and find your maturity stage below. Recommended action steps are on the next page.

- **0–3: Basic (Ad-Hoc)**
- **4–6: Intermediate (Structured)**
- **7–10: Advanced (AI/ML-Ready)**

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Action Plan by Maturity Stage

BASIC: AD-HOC STAGE (SCORE 0–3)

Goal → Move to structured data management.

Priority Actions:

- **Centralize Raw Data:** Migrate to a cloud data lake (e.g. S3, ADLS).
- **Governance Basics:** Document key datasets and ownership.
- **Upskill Teams:** SQL, Python, Cloud basics (AWS/Azure)
- **Prove Value:** Deliver first "Data Product"
- **Pilot AI:** Run a low-code ML proof-of-concept (e.g. Azure AutoML, SageMaker Canvas).

INTERMEDIATE: STRUCTURED STAGE (SCORE 4–6)

Goal → Enable repeatable AI/ML workflows.

Priority Actions:

- **Automate Pipelines:** Use tools like Airflow, Databricks Workflows, or AWS Glue.
- **Enforce Governance:** Implement data catalogs (e.g. AWS Glue Catalog, Purview, Atlan).
- **Build ML Pipelines:** Standardize with MLflow or SageMaker Pipelines.
- **Optimize Costs:** Rightsize cloud resources (e.g. spot instances, reserved capacity).

ADVANCED: AI/ML-READY STAGE (SCORE 7–10)

Goal → Scale AI/ML and drive innovation.

Priority Actions:

- **Adopt MLOps:** Automate model deployment and experiment tracking (e.g. MLFlow, SageMaker Model Registry).
- **Unify Analytics:** Merge data and AI tools (e.g. Databricks Lakehouse, Fabric, SageMaker Studio).
- **Real-Time Use Cases:** Add streaming (e.g. Kafka, Kinesis).
- **Generative AI:** Experiment with LLMs (e.g. Bedrock, Azure OpenAI).