



# AI-READY ASSESSMENT QUESTIONNAIRE

## DataMindAI - Comprehensive Readiness Evaluation

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### HOW TO USE THIS QUESTIONNAIRE

#### Purpose

This questionnaire evaluates your organization's AI-Ready foundation across six critical dimensions. Use it to:

- Assess current state objectively
- Identify critical gaps
- Prioritize improvement efforts
- Track progress over time
- Build roadmap for AI readiness

#### Assessment Approach

1. **Answer honestly** - This is for your benefit, not for external evaluation
2. **Gather evidence** - Don't guess; verify with your teams
3. **Score objectively** - Use the scoring guide provided
4. **Document gaps** - Note specific issues discovered
5. **Create action plan** - Prioritize based on scores



## Scoring System

### For Each Question:

- **5 points** = Fully implemented, working well, measurable evidence
- **4 points** = Mostly implemented, minor gaps, some evidence
- **3 points** = Partially implemented, significant gaps, limited evidence
- **2 points** = Minimally implemented, major gaps, little evidence
- **1 point** = Not implemented, planned or in early stages
- **0 points** = Not implemented, no plans, not aware

**NA (Not Applicable)** = Question doesn't apply to your organization - exclude from scoring

### Time Required

- Quick Assessment: 30 minutes (score only)
- Comprehensive Assessment: 2-3 hours (with evidence gathering and documentation)
- Team Assessment: 3-4 hours (cross-functional discussion)

### Who Should Participate

Ideally, conduct as cross-functional team assessment with:

- Chief Data Officer / Head of Data
- Data Engineering Lead
- Data Governance Lead
- IT Security / InfoSec Lead
- AI/ML Lead (if available)
- Business Stakeholders



# SECTION 1: DATA QUALITY & DISCOVERY

**Foundation: Can you trust your data for AI?**

## QUALIFYING QUESTIONS (Answer these first)

Before proceeding with detailed questions, answer these qualifying questions:

| #    | Qualifying Question  | YES                      | NO                       | NOTES |
|------|--|--------------------------|--------------------------|-------|
| Q1.1 | Do you have a system to discover your data? (data catalog, data marketplace) | <input type="checkbox"/> | <input type="checkbox"/> |       |
| Q1.2 | Do you have an inventory of your critical datasets?                          | <input type="checkbox"/> | <input type="checkbox"/> |       |
| Q1.3 | Do you have a tool to identify data quality issues?                          | <input type="checkbox"/> | <input type="checkbox"/> |       |

**If you answered NO to all three qualifying questions:**

- **Section Score: 0 points**
- **Priority: CRITICAL - Start here immediately**
- **Skip to Section 2**

**If you answered YES to at least one qualifying question:**

- **Continue with detailed assessment below**



## DETAILED ASSESSMENT: DATA QUALITY DIMENSIONS

### 1.1 ACCURACY

*Do you know, with evidence, that your critical datasets are correct?*

| #     | Question  | Score (0-5)   | Evidence | Notes |
|-------|---|---|----------|-------|
| 1.1.1 | Critical datasets are regularly reconciled against source systems | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.1.2 | Accuracy metrics are measured and tracked over time               | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.1.3 | Data accuracy exceeds 95% for mission-critical datasets           | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.1.4 | Inaccuracies are detected and corrected within defined SLAs       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |

**Accuracy Subscore:** \_\_\_\_\_ / 20

### 1.2 COMPLETENESS

*Are mandatory fields populated across all key datasets?*

| #     | Question  | Score (0-5)   | Evidence | Notes |
|-------|---|---|----------|-------|
| 1.2.1 | Mandatory fields are defined and enforced for critical datasets | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.2.2 | Completeness is measured (% of required fields populated)       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.2.3 | Completeness exceeds 95% for AI-critical attributes             | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.2.4 | Missing data is handled with documented business rules          | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |

**Completeness Subscore:** \_\_\_\_\_ / 20

### 1.3 CONSISTENCY

*Does the same entity (customer, student, product) match across systems?*

| #     | Question   | Score (0-5)   | Evidence | Notes |
|-------|--|---|----------|-------|
| 1.3.1 | Common entities have standardized identifiers across systems | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.3.2 | Master data management (MDM) or golden records exist         | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.3.3 | Inconsistencies are detected and resolved systematically     | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.3.4 | Data formats and standards are enforced across systems       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |

**Consistency Subscore:** \_\_\_\_\_ / 20

### 1.4 TIMELINESS

*Is data refreshed fast enough for its intended AI use cases?*

| #     | Question   | Score (0-5)   | Evidence | Notes |
|-------|--|---|----------|-------|
| 1.4.1 | Data refresh frequencies are defined per use case requirements | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.4.2 | Real-time or near-real-time data available where needed        | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.4.3 | Data latency is measured and meets SLAs (>95% on time)         | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.4.4 | Stale data is automatically flagged or excluded                | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |

**Timeliness Subscore:** \_\_\_\_\_ / 20

## 1.5 VALIDITY

Are data values enforced against rules (ranges, formats, constraints)?

| #     | Question  | Score (0-5)   | Evidence | Notes |
|-------|---|---|----------|-------|
| 1.5.1 | Validation rules are defined for critical data elements   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.5.2 | Validation is enforced at point of entry and in pipelines | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.5.3 | Invalid data is rejected or quarantined automatically     | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.5.4 | Validation rules are tested and maintained regularly      | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |

Validity Subscore: \_\_\_\_\_ / 20

## 1.6 UNIQUENESS

Are duplicates actively detected and resolved?

| #     | Question  | Score (0-5)   | Evidence | Notes |
|-------|---|---|----------|-------|
| 1.6.1 | Duplicate detection rules are defined and automated     | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.6.2 | Duplicates are measured (% of duplicate records)        | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.6.3 | Duplicate rate is <1% for critical master data entities | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.6.4 | De-duplication processes are documented and repeatable  | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |

Uniqueness Subscore: \_\_\_\_\_ / 20



## 1.7 INTEGRITY

*Are relationships preserved (e.g., no orphan records)?*

| #     | Question  | Score (0-5)   | Evidence | Notes |
|-------|---|---|----------|-------|
| 1.7.1 | Referential integrity rules are defined and enforced    | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.7.2 | Orphan records are detected and prevented               | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.7.3 | Foreign key relationships are maintained across systems | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.7.4 | Integrity violations trigger alerts and remediation     | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |

**Integrity Subscore:** \_\_\_\_\_ / 20

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## 1.8 LINEAGE (Quality Dimension)

*Can you trace where the data originated and how it changed?*

| #     | Question   | Score (0-5)   | Evidence | Notes |
|-------|--|---|----------|-------|
| 1.8.1 | Data lineage is captured automatically for critical datasets | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.8.2 | You can trace any data element to its source system          | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 1.8.3 | All transformations are documented and traceable             | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |



| #     | Question  | Score (0-5) | Evidence | Notes |
|-------|---|-------------|----------|-------|
| 1.8.4 | Lineage is accessible to data users (not just IT) | □□□□□       |          |       |

**Lineage Subscore:** \_\_\_\_\_ / 20

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### SECTION 1 TOTAL SCORE

| Dimension    | Subscore | Max        | %            |
|--------------|----------|------------|--------------|
| Accuracy     | _____    | 20         | ____%        |
| Completeness | _____    | 20         | ____%        |
| Consistency  | _____    | 20         | ____%        |
| Timeliness   | _____    | 20         | ____%        |
| Validity     | _____    | 20         | ____%        |
| Uniqueness   | _____    | 20         | ____%        |
| Integrity    | _____    | 20         | ____%        |
| Lineage      | _____    | 20         | ____%        |
| <b>TOTAL</b> | _____    | <b>160</b> | <b>____%</b> |

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## SECTION 2: DATA PIPELINES & RELIABILITY

Foundation: Can your data infrastructure reliably support AI?

### QUALIFYING QUESTIONS

| #    | Qualifying Question                                      | YES                      | NO                       | NOTES |
|------|--|--------------------------|--------------------------|-------|
| Q2.1 | Do you have a data architecture for data pipelines?      | <input type="checkbox"/> | <input type="checkbox"/> |       |
| Q2.2 | Do your pipelines log their activities and monitor them? | <input type="checkbox"/> | <input type="checkbox"/> |       |
| Q2.3 | Do you have SLA documentation for your data engineering? | <input type="checkbox"/> | <input type="checkbox"/> |       |
| Q2.4 | Do you have alerting tools for pipeline failures?        | <input type="checkbox"/> | <input type="checkbox"/> |       |

If you answered **NO** to all four qualifying questions:

- **Section Score: 0 points**
- **Priority: CRITICAL**
- **Skip to Section 3**

If you answered **YES** to at least one:

- **Continue with detailed assessment**



## DETAILED ASSESSMENT: PIPELINE RELIABILITY

| #   | Question   | Score (0-5)   | Evidence | Notes |
|-----|--|---|----------|-------|
| 2.1 | Are data pipelines fully automated (no manual fixes required)?         | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 2.2 | Do pipelines have defined SLAs (e.g., 99.5% uptime, <1hr latency)?     | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 2.3 | Are SLAs measured and reported regularly (weekly/monthly)?             | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 2.4 | Do you have comprehensive monitoring dashboards for all pipelines?     | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 2.5 | Are pipeline failures detected and alerted in near real-time (<5 min)? | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 2.6 | Do alerts include root cause information and remediation steps?        | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 2.7 | Can you replay or recover data after pipeline failure?                 | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 2.8 | Are pipeline recovery procedures documented and tested?                | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |

| #    | Question  | Score (0-5)  | Evidence | Notes |
|------|---|--|----------|-------|
| 2.9  | Do pipelines have automated retry logic and error handling?           | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 2.10 | Are pipeline dependencies mapped and managed?                         | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 2.11 | Do you have CI/CD for data pipeline deployments?                      | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 2.12 | Are pipeline changes version-controlled and tested before production? | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |

**SECTION 2 TOTAL SCORE:** \_\_\_\_\_ / 60

**Percentage:** \_\_\_\_\_% (Score / 60 × 100)

## SECTION 3: GOVERNANCE & SECURITY

**Foundation: Can you govern and protect your data at scale?**

### QUALIFYING QUESTIONS

| #    | Qualifying Question   | YES                      | NO                       | NOTES |
|------|---|--------------------------|--------------------------|-------|
| Q3.1 | Do you have a Governance Operating Model in place?                        | <input type="checkbox"/> | <input type="checkbox"/> |       |
| Q3.2 | Do you have documented data governance policies?                          | <input type="checkbox"/> | <input type="checkbox"/> |       |
| Q3.3 | Do you have a Data Governance and/or Information Security body/committee? | <input type="checkbox"/> | <input type="checkbox"/> |       |
| Q3.4 | Do you have a Data Protection policy (GDPR, HIPAA, etc.)?                 | <input type="checkbox"/> | <input type="checkbox"/> |       |
| Q3.5 | Do you have monitoring tools for governance and data security?            | <input type="checkbox"/> | <input type="checkbox"/> |       |



**If you answered NO to all five qualifying questions:**

- **Section Score: 0 points**
- **Priority: CRITICAL - Major compliance risk**
- **Skip to Section 4**

**If you answered YES to at least one:**

- **Continue with detailed assessment**

## **DETAILED ASSESSMENT: GOVERNANCE & SECURITY**

| <b>#</b> | <b>Question</b>  | <b>Score (0-5)</b>  | <b>Evidence</b> | <b>Notes</b> |
|----------|--|---|-----------------|--------------|
| 3.1      | Are data ownership and stewardship formally defined for all critical datasets? | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |                 |              |
| 3.2      | Do data owners actively manage their data domains (not just on paper)?         | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |                 |              |
| 3.3      | Are access controls enforced via RBAC (Role-Based Access Control)?             | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |                 |              |
| 3.4      | Are access controls enforced via ABAC (Attribute-Based Access Control)?        | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |                 |              |
| 3.5      | Is the principle of least privilege applied (users only see what they need)?   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |                 |              |



| #   | Question   | Score (0-5)   | Evidence | Notes |
|---|--|---|----------|-------|
| 3.6   | Is sensitive data protected (PII, PHI, financial data)?                          | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 3.7   | Is PII/sensitive data encrypted at rest and in transit?                          | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 3.8   | Are data protection regulations complied with (GDPR, HIPAA, CCPA, etc.)?         | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 3.9   | Are governance policies actually enforced (not just documented)?                 | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 3.10  | Are policy violations automatically detected and remediated?                     | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 3.11  | Are audit logs available for all data access and changes?                        | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 3.12  | Are audit logs retained per regulatory requirements and searchable?              | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 3.13  | Do you have a data classification scheme (Public, Internal, Confidential, etc.)? | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 3.14  | Is data classified automatically or through documented processes?                | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 3.15  | Do you conduct regular governance audits (quarterly/annually)?                   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 3.16  | Are audit findings tracked and remediated with accountability?                   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| <b>SECTION 3 TOTAL SCORE:</b> _____ / 80      |  |   |          |       |
| <b>Percentage:</b> _____ % (Score / 80 × 100) |  |   |          |       |

# SECTION 4: METADATA & LINEAGE

Foundation: Can you discover, understand, and trace your data?

## QUALIFYING QUESTIONS

| #    | Qualifying Question                                   | YES                      | NO                       | NOTES |
|------|---|--------------------------|--------------------------|-------|
| Q4.1 | Do you have a data catalog or metadata repository?    | <input type="checkbox"/> | <input type="checkbox"/> |       |
| Q4.2 | Is lineage captured (manually or automatically)?      | <input type="checkbox"/> | <input type="checkbox"/> |       |
| Q4.3 | Can business users search for data without asking IT? | <input type="checkbox"/> | <input type="checkbox"/> |       |

If you answered NO to all three qualifying questions:

- Section Score: 0 points
- Priority: HIGH - Severe productivity drain
- Skip to Section 5

If you answered YES to at least one:

- Continue with detailed assessment

## DETAILED ASSESSMENT: METADATA & LINEAGE

| #   | Question  | Score (0-5)   | Evidence | Notes |
|-----|---|---|----------|-------|
| 4.1 | Can users discover datasets without asking people (self-service discovery)? | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 4.2 | Does your catalog include business context (not just technical metadata)?   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 4.3 | Are datasets searchable by business terms and definitions?                  | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |



| #    | Question  | Score (0-5)  | Evidence | Notes |
|------|---|--|----------|-------|
| 4.4  | Is technical lineage automatically captured (not manually documented)?        | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 4.5  | Does lineage include source systems, transformations, and consumption points? | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 4.6  | Is lineage visualized (not just text-based)?                                  | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 4.7  | Can you perform impact analysis before making changes?                        | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 4.8  | Does impact analysis show downstream reports, dashboards, and models?         | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 4.9  | Can you explain any metric to a regulator or auditor with full lineage?       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 4.10 | Is metadata kept current (not stale or out-of-date)?                          | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 4.11 | Are metadata updates automated (not manual maintenance)?                      | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 4.12 | Can you trace any data quality issue to its root cause using lineage?         | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |

**SECTION 4 TOTAL SCORE:** \_\_\_\_\_ / 60

**Percentage:** \_\_\_\_\_ % (Score / 60 × 100)

## SECTION 5: MONITORING & DRIFT DETECTION

**Foundation: Can you detect and prevent data quality degradation?**

## QUALIFYING QUESTIONS

| #    | Qualifying Question                                  | YES                      | NO                       | NOTES |
|------|--|--------------------------|--------------------------|-------|
| Q5.1 | Do you have any data quality monitoring in place?    | <input type="checkbox"/> | <input type="checkbox"/> |       |
| Q5.2 | Do you monitor for data drift or anomalies?          | <input type="checkbox"/> | <input type="checkbox"/> |       |
| Q5.3 | Do you have dashboards showing data quality metrics? | <input type="checkbox"/> | <input type="checkbox"/> |       |

**If you answered NO to all three qualifying questions:**

- **Section Score: 0 points**
- **Priority: HIGH - Flying blind**
- **Skip to Section 6**

**If you answered YES to at least one:**

- **Continue with detailed assessment**

## DETAILED ASSESSMENT: MONITORING & DRIFT

| #   | Question  | Score (0-5)  | Evidence | Notes |
|-----|---|--|----------|-------|
| 5.1 | Do you have data quality dashboards accessible to stakeholders? | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 5.2 | Are dashboards updated in real-time or near real-time?          | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |



| #    | Question   | Score (0-5)  | Evidence | Notes |
|------|--|--|----------|-------|
| 5.3  | Do dashboards cover all 8 quality dimensions (accuracy, completeness, etc.)? | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 5.4  | Are quality thresholds defined for critical datasets (e.g., >95% accuracy)?  | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 5.5  | Are thresholds enforced with automated alerts?                               | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 5.6  | Do alerts include context and recommended actions?                           | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 5.7  | Is data drift detected automatically (statistical distribution changes)?     | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 5.8  | Do you monitor for concept drift (relationship changes over time)?           | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 5.9  | Are drift alerts sent before downstream impact occurs?                       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 5.10 | Are anomalies flagged before they affect production systems?                 | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 5.11 | Do you have automated anomaly detection (not just manual review)?            | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 5.12 | Are monitoring tools integrated with incident management systems?            | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 5.13 | Do you track Mean Time to Detection (MTTD) for quality issues?               | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 5.14 | Do you track Mean Time to Resolution (MTTR) for quality issues?              | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |



| #    | Question   | Score (0-5) | Evidence | Notes |
|------|--|-------------|----------|-------|
| 5.15 | Are monitoring metrics reviewed regularly by leadership? |             | □□□□□    |       |

**SECTION 5 TOTAL SCORE:** \_\_\_\_\_ / 75

**Percentage:** \_\_\_\_\_% (Score / 75 × 100)

## SECTION 6: ARCHITECTURE & SCALE

**Foundation: Is your infrastructure ready for AI at scale?**

### QUALIFYING QUESTIONS

| #    | Qualifying Question  | YES                      | NO                       | NOTES |
|------|--|--------------------------|--------------------------|-------|
| Q6.1 | Do you have a defined data architecture (lakehouse, data warehouse, etc.)? | <input type="checkbox"/> | <input type="checkbox"/> |       |
| Q6.2 | Does your architecture separate experimentation from production?           | <input type="checkbox"/> | <input type="checkbox"/> |       |
| Q6.3 | Can your infrastructure scale to handle increased data volumes?            | <input type="checkbox"/> | <input type="checkbox"/> |       |

**If you answered NO to all three qualifying questions:**

- **Section Score: 0 points**
- **Priority: HIGH - Scalability risk**
- **Skip to Overall Score Calculation**

**If you answered YES to at least one:**

- **Continue with detailed assessment**

## DETAILED ASSESSMENT: ARCHITECTURE & SCALE

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| #    | Question   | Score (0-5)   | Evidence | Notes |
|------|--|---|----------|-------|
| 6.1  | Does your architecture support both AI experimentation and production? | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 6.2  | Are experimentation and production environments properly isolated?     | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 6.3  | Can data scientists access data without compromising production?       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 6.4  | Can your architecture scale 5–10× without fundamental redesign?        | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 6.5  | Is your architecture elastic (auto-scales based on demand)?            | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 6.6  | Have you tested scaling under realistic load scenarios?                | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 6.7  | Is security built into the architecture (not bolted on afterward)?     | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 6.8  | Are security controls automated and consistently enforced?             | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 6.9  | Does your architecture support multi-cloud or cloud-agnostic design?   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 6.10 | Are feature stores available or planned for deployment?                | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 6.11 | Do feature stores support both batch and real-time serving?            | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 6.12 | Is your architecture optimized for cost-efficiency?                    | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |



| #    | Question  | Score (0-5)  | Evidence | Notes |
|------|---|--|----------|-------|
| 6.13 | Do you monitor and optimize cloud costs regularly?                    | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 6.14 | Does your architecture follow medallion pattern (Bronze/Silver/Gold)? | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 6.15 | Are data zones clearly defined (raw, standardized, consumption)?      | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |
| 6.16 | Do you have a disaster recovery plan with tested procedures?          | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |          |       |

**SECTION 6 TOTAL SCORE:** \_\_\_\_\_ / 80

**Percentage:** \_\_\_\_\_% (Score / 80 × 100)

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# OVERALL AI-READY ASSESSMENT SCORE

## SECTION SCORES SUMMARY

| Section                         | Your Score | Max Score | Percentage | Weight      | Weighted Score |
|---------------------------------|------------|-----------|------------|-------------|----------------|
| 1. Data Quality & Discovery     | _____      | 160       | _____ %    | 30%         | _____          |
| 2. Data Pipelines & Reliability | _____      | 60        | _____ %    | 15%         | _____          |
| 3. Governance & Security        | _____      | 80        | _____ %    | 20%         | _____          |
| 4. Metadata & Lineage           | _____      | 60        | _____ %    | 10%         | _____          |
| 5. Monitoring & Drift           | _____      | 75        | _____ %    | 15%         | _____          |
| 6. Architecture & Scale         | _____      | 80        | _____ %    | 10%         | _____          |
| <b>TOTAL WEIGHTED SCORE</b>     |            |           |            | <b>100%</b> | _____          |

### CALCULATION INSTRUCTIONS:

**Step 1:** Calculate percentage for each section

- $\text{Percentage} = (\text{Your Score} / \text{Max Score}) \times 100$

**Step 2:** Calculate weighted score for each section

- $\text{Weighted Score} = \text{Percentage} \times \text{Weight}$

**Step 3:** Sum all weighted scores

- $\text{Total Weighted Score} = \text{Sum of all weighted scores}$

# AI-READY MATURITY LEVEL

Based on your **Total Weighted Score**, find your maturity level:

## LEVEL 1: INITIAL (0-20%)

**Status: NOT AI-READY**

### Characteristics:

- Ad-hoc data management
- No standardized processes
- Hero-dependent operations
- Frequent data quality issues
- No governance framework
- Manual data work dominates

### Priority Actions:

1. **CRITICAL:** Establish data quality baseline
2. **CRITICAL:** Implement basic governance (ownership, access control)
3. **CRITICAL:** Document critical datasets
4. **HIGH:** Build data catalogue for discovery
5. **HIGH:** Implement pipeline monitoring

**Timeline:** 6-9 months to reach Level 2

**Risk Level: SEVERE** - Do NOT proceed with AI initiatives

## LEVEL 2: DEVELOPING (21-40%)

**Status: EARLY AI-READY FOUNDATIONS**

### Characteristics:

- Basic data quality checks in place
- Some documentation exists
- Processes mostly manual
- Inconsistent practices across teams
- Governance policies documented but not enforced
- Limited monitoring

### Priority Actions:

1. **HIGH:** Automate data quality checks
2. **HIGH:** Enforce governance policies (not just document)
3. **HIGH:** Implement automated lineage capture
4. **MEDIUM:** Build quality dashboards
5. **MEDIUM:** Establish SLAs for pipelines

**Timeline:** 4-6 months to reach Level 3

**Risk Level:** **HIGH** - AI pilots only, no production

---



## LEVEL 3: DEFINED (41-60%)

**Status:** MINIMUM AI-READY

### **Characteristics:**

- Documented processes and standards
- Governance framework in place
- Quality monitoring active
- Some automation implemented
- Lineage captured for critical datasets
- Building organizational muscle memory

### **Priority Actions:**

1. **MEDIUM:** Expand automation across all pipelines
2. **MEDIUM:** Implement drift detection
3. **MEDIUM:** Build feature stores
4. **MEDIUM:** Enhance metadata completeness
5. **LOW:** Optimize architecture for scale

**Timeline:** 3-4 months to reach Level 4

**Risk Level:** MODERATE - Limited production AI acceptable



## LEVEL 4: MANAGED (61-80%)

**Status: AI-READY FOR PRODUCTION**

### Characteristics:

- Metrics-driven decisions
- Automated quality controls
- Continuous monitoring
- Problems caught early
- Governance enforced consistently
- Scalable architecture

### Priority Actions:

1. **LOW:** Implement advanced drift detection
2. **LOW:** Build self-healing pipelines
3. **LOW:** Expand feature store usage
4. **LOW:** Enhance explainability
5. **LOW:** Optimize costs

**Timeline:** 2-3 months to reach Level 5

**Risk Level:** **LOW** - Ready for production AI at scale



## LEVEL 5: OPTIMIZED (81-100%)

**Status: AI-READY EXCELLENCE**

### Characteristics:

- Continuous improvement culture
- AI-first organization
- Self-healing systems
- Proactive issue detection
- Industry leadership
- Innovation-driven

### Priority Actions:

1. Focus on innovation and new use cases
2. Share best practices internally and externally
3. Explore cutting-edge AI capabilities
4. Mentor other teams/organizations
5. Contribute to industry standards

**Timeline:** Continuous optimization

**Risk Level:**  **MINIMAL** - Enterprise AI leader

---



# DETAILED GAP ANALYSIS

## CRITICAL GAPS (Score 0-2)

List all questions where you scored 0, 1, or 2:

| Section | Question # | Question | Score | Priority | Action Owner | Target Date |
|---------|------------|----------|-------|----------|--------------|-------------|
|---------|------------|----------|-------|----------|--------------|-------------|

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## SIGNIFICANT GAPS (Score 3)

List all questions where you scored 3:

| Section | Question # | Question | Score | Priority | Action Owner | Target Date |
|---------|------------|----------|-------|----------|--------------|-------------|
|---------|------------|----------|-------|----------|--------------|-------------|

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# 90-DAY ACTION PLAN

Based on your assessment, prioritize your next 90 days:

## MONTH 1: STABILIZE CRITICAL GAPS

Focus on questions scored 0-2 in highest-weighted sections

### Priority Actions:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

### Success Metrics:

- \_\_\_\_\_
- \_\_\_\_\_

Owner: \_\_\_\_\_ Budget Required: \_\_\_\_\_

## MONTH 2: ADDRESS SIGNIFICANT GAPS

Focus on questions scored 3 and remaining 0-2 items

### Priority Actions:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

### Success Metrics:

- \_\_\_\_\_
- \_\_\_\_\_

Owner: \_\_\_\_\_ Budget Required: \_\_\_\_\_



## MONTH 3: BUILD MOMENTUM

Focus on raising scores from 4 to 5 in high-priority areas

### Priority Actions:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

### Success Metrics:

- \_\_\_\_\_
- \_\_\_\_\_

Owner: \_\_\_\_\_ Budget Required: \_\_\_\_\_

\_\_\_\_\_



# RE-ASSESSMENT SCHEDULE

**Initial Assessment Date:** \_\_\_\_\_

**Recommended Re-assessment Frequency:**

- Level 1 (Initial): Monthly until reaching Level 2
- Level 2 (Developing): Quarterly until reaching Level 3
- Level 3 (Defined): Quarterly until reaching Level 4
- Level 4 (Managed): Semi-annually
- Level 5 (Optimized): Annually

**Next Re-assessment Date:** \_\_\_\_\_

## ASSESSMENT PARTICIPANTS

| Name | Role | Department | Signature | Date |
|------|------|------------|-----------|------|
|------|------|------------|-----------|------|

## APPENDIX: EVIDENCE DOCUMENTATION

For each question scored 4 or 5, attach evidence:

**Examples of Evidence:**

- Screenshots of dashboards
- Sample data quality reports
- Policy documents
- Architecture diagrams
- Monitoring alerts
- SLA documentation
- Audit logs

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- Lineage visualizations
- Test results

**Evidence Storage Location:** \_\_\_\_\_

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## RESOURCES & TOOLS

### Data Quality Tools:

- Great Expectations (Open Source)
- Monte Carlo Data
- Microsoft Fabric Data Quality
- Databricks Lakehouse Monitoring
- Collibra DQ

### Data Catalogue & Lineage:

- Microsoft Purview
- Databricks Unity Catalogue
- Alation
- Collibra

### Governance Platforms:

- Microsoft Purview
- Collibra Governance
- Atlan

### Monitoring & Observability:

- Datadog
- Monte Carlo
- Great Expectations

### Feature Stores:

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- Databricks Feature Store
  - Azure ML Feature Store
  - AWS SageMaker Feature Store
- 

## SUPPORT & GUIDANCE

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**For assistance with this assessment:**

- Website: [datamindaiwithahmed.com](https://www.datamindaiwithahmed.com)
- YouTube: [https://www.youtube.com/@datamindai\\_ahmed](https://www.youtube.com/@datamindai_ahmed)
- LinkedIn: <https://www.linkedin.com/in/ahmed-mahmoud-76b21a22/>

**Recommended Next Steps:**

1. Complete this assessment with your cross-functional team
2. Review AI-Ready presentation materials (Parts 1-3)
3. Develop 90-day action plan based on scores
4. Schedule monthly progress reviews
5. Re-assess after 90 days

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**END OF AI-READY ASSESSMENT QUESTIONNAIRE**

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