



Advanced Big Data Governance and Quality Management Training Course

16 – 27 May 2027
Muscat

Advanced Big Data Governance and Quality Management Training Course

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Overview

Advanced Big Data Governance and Quality Management Training Course is a ten-day advanced course for governance leads, quality managers, analytics leaders, risk functions, technology architects, data owners, and transformation teams who leave with a Big Data Governance Operating Model and Implementation Pack. Participants connect governance decision rights, data ownership, data stewardship, policy architecture, metadata management, data lineage, quality measurement, privacy risk, lifecycle controls, analytics accountability, governance metrics, and implementation roadmaps. Agile Leaders Training Center develops advanced big data governance capability.

Who Should Attend

- Data governance functions responsible for mandates, forums, and decision rights
- Data quality functions responsible for measurement, controls, and remediation
- Analytics leadership functions responsible for trustworthy analytical evidence
- Risk and compliance functions responsible for data control and accountability
- Technology architecture functions responsible for metadata, lineage, access, and lifecycle services
- Business data-owner functions responsible for definitions, quality expectations, and issue decisions

The course assumes participants can interpret data flows, policies, quality measures, risk controls, and organizational accountabilities, and leaves out introductory database design, coding, platform administration, legal advice, and certification preparation.

Departments and Industries

The course supports departments and industries that govern large-scale operational and analytical data.

- Financial services data governance
- Healthcare information management
- Telecommunications and digital platforms
- Manufacturing and industrial analytics
- Retail and customer-data operations
- Public-service digital governance

Learning Objectives

By the end of this course, participants will be able to:



- Build governance mandates, decision rights, and operating structures
- Apply ownership, stewardship, metadata, and lineage controls
- Analyze data-quality measures and root causes
- Evaluate access, privacy, security, and lifecycle risks
- Build analytics accountability and governance metrics
- Prioritize a staged governance implementation roadmap

Course Agenda

Day 1: Frame Big Data Governance

- Big Data Governance Mandate Canvas
- DAMA-DMBOK Governance Knowledge Area Map
- Governance Principle and Outcome Register
- Data Domain and Critical Data Scope Matrix
- Governance Maturity Baseline Assessment

Day 2: Design Decision Rights

- Governance Council and Forum Architecture
- Data Decision Rights Matrix
- Escalation and Exception Workflow
- Policy Authority and Approval Map
- Governance Service Catalogue

Day 3: Establish Ownership and Stewardship

- Data Owner Accountability Charter
- Data Steward Responsibility Matrix
- Domain Team and Custodian Interface Map
- Definition Approval and Change Workflow
- Data Issue Ownership and Resolution Protocol

Day 4: Govern Metadata and Lineage

- Business Glossary Operating Model
- Metadata Classification and Minimum Attribute Standard
- Source-to-Consumption Data Lineage Map
- Metadata Change and Version Control Workflow
- Lineage Evidence and Traceability Review



Day 5: Manage Data Quality

- ISO 8000-8:2015 Quality Concept Map
- Data Quality Dimension and Rule Catalogue
- Quality Measurement and Threshold Scorecard
- Root Cause and Control Failure Analysis
- Remediation and Prevention Action Register

Day 6: Control Access and Lifecycle

- Data Classification and Handling Matrix
- Role-Based Access Decision Framework
- Retention, Archiving, and Disposal Schedule
- Third-Party Data Sharing Control Map
- Lifecycle Control Evidence Checklist

Day 7: Address Privacy and Security Risk

- NIST Big Data Security and Privacy Fabric Map
- Privacy Risk Scenario and Impact Register
- Security Threat and Control Assessment
- Sensitive Data Use and Minimization Review
- Risk Acceptance and Treatment Decision Record

Day 8: Govern Analytics and Models

- Analytical Dataset Approval Checklist
- Feature and Transformation Traceability Record
- Model Input Quality and Suitability Review
- Analytical Evidence and Limitation Statement
- Human Oversight and Decision Accountability Matrix

Day 9: Measure and Implement Governance

- Governance Performance and Adoption Dashboard
- Control Effectiveness and Issue Trend Review
- Operating Model Gap and Dependency Map
- Implementation Wave Prioritization Matrix
- Governance Change and Communication Plan



Day 10: Practice Governance Implementation

- Exercise: Build a Governance Mandate and Decision Matrix
- Exercise: Map Ownership, Metadata, and Lineage Controls
- Exercise: Diagnose Quality, Privacy, and Security Risks
- Exercise: Prioritize Metrics and Implementation Waves
- Capstone: Big Data Governance Operating Model and Implementation Pack

Practical Exercises

The course uses suggested activities based on financial, healthcare, industrial, retail, digital-platform, and public-service data scenarios.

- Suggested activity: map governance forums, decision rights, ownership, stewardship, and escalation for a selected data domain.
- Suggested activity: trace critical data from source to consumption and design metadata, lineage, and quality controls.
- Suggested activity: evaluate access, lifecycle, privacy, security, and analytical-accountability scenarios.
- Suggested activity: assemble metrics, priorities, implementation waves, communications, and dependencies in the final operating-model pack.

FAQs

Who suits advanced big data governance training, and what does it assume?

Governance, quality, analytics, risk, architecture, ownership, and transformation functions suit the course; it assumes experience with data flows, policies, measures, risks, and organizational accountability.

How does advanced big data governance differ from general data-management training?

Advanced big data governance focuses on decision rights, accountability, controls, quality evidence, risk, analytics oversight, metrics, and implementation across large-scale data, while general data management may survey broader technical disciplines.

How do data ownership and data stewardship differ in big data governance?

Data ownership carries business accountability and decision authority, while data stewardship performs coordinated definition, quality, metadata, issue, and control activities under that authority.

Why are metadata and lineage essential to big data governance?

Metadata explains meaning, structure, ownership, and handling, while lineage shows origin, movement, transformation, and consumption; together they support traceability, quality investigation, access decisions, and analytical accountability.



How is big data governance implementation measured?

Implementation is measured through adoption, decision timeliness, ownership coverage, metadata and lineage completeness, quality trends, issue resolution, control effectiveness, risk treatment, and delivery of prioritized roadmap outcomes.

Conclusion

Participants take back a Big Data Governance Operating Model and Implementation Pack linking mandates, decisions, ownership, stewardship, metadata, lineage, quality, access, lifecycle, risk, analytics, metrics, and roadmap waves. It changes isolated controls into a coordinated governance system. The pack supports accountable implementation across business, data, risk, technology, and transformation functions.