

ENTERPRISE PROGRAM BRIEF

Databricks Data and AI Solution Engineering

Deliver a governed lakehouse data product with a bounded AI consumption interface.

VNode ITes

D02

DURATION

48 hours

LEVEL

Practitioner / specialist

FORMAT

Private cohort

AUDIENCE PROFILE

Built for these roles

Data engineers, Solution engineers

OVERVIEW

Executive overview

Deliver a governed lakehouse data product with a bounded AI consumption interface. Proposed instructor-led duration; delivery subject to environment and lab validation.

READINESS

Prerequisites

- Databricks engineering competence
- AI and Generative AI Foundations, or equivalent demonstrable experience
- Databricks Engineering Foundations, or equivalent demonstrable experience

PROGRAM OUTCOMES

Capabilities your teams will gain

- Deliver governed lakehouse ingestion, serving and bounded AI access
- Prove quality, history, replay and reference-query correctness
- Restrict runtime data privileges and prohibit write actions
- Present operational evidence and accountable product ownership

ENTERPRISE CUSTOMIZATION

Enterprise customization

Tailor this program to your organization's priorities: Deliver a governed lakehouse data product with a bounded AI consumption interface.

- Private cohort scheduling
- Equivalent-experience entry review

CURRICULUM

Curriculum roadmap

1 MODULE 1 · 8 HOURS
Use-case and lakehouse design

Define a service-operations lakehouse and acceptance queries.

- Business measures
- Data contracts
- Layering
- Ownership

2 MODULE 2 · 8 HOURS
Incremental ingestion

Build repeatable ingestion and test replay scenarios.

- Source files and events
- Schema evolution
- Checkpoints
- Replay and duplicate handling

3 MODULE 3 · 8 HOURS
Transformation and pipeline engineering

Implement curated datasets and quarantine invalid records.

- Lakeflow pipelines
- Quality expectations
- History
- Performance

4 MODULE 4 · 8 HOURS
Governance and analytical serving

Expose approved data to two personas and verify denied access.

- Unity Catalog privileges
- Service identities
- SQL consumption
- Lineage

5 MODULE 5 · 8 HOURS
Bounded AI consumption

Build a small read-only question-answer interface over curated data with reference checks.

- SQL-based question answering
- Approved model access
- Query validation
- Read-only tools

6 MODULE 6 · 8 HOURS
Operational capstone

Run the complete solution and demonstrate reconciliation, security and recovery.

- Jobs
- Monitoring
- Recovery and handover

PREPARATION

Environment prerequisites

Azure Databricks workspace with Unity Catalog Appropriate compute/SQL and scoped catalog/storage access AI courses: approved model access, retrieval service and MLflow Deployment courses: supported serverless/Apps/runtime access and service identity Delivery depends on environment and lab validation. This outline does not include step-by-step lab instructions.

CAPSTONE

Capstone

Run the complete solution and demonstrate reconciliation, security and recovery. Assessed Databricks data and AI solution Evidence of relevant access, quality and risk controls Demonstration and limitations record

ASSESSMENT

Assessment

Scenario-based practical assessment Deliver governed lakehouse ingestion, serving and bounded AI access 30% Prove quality, history, replay and reference-query correctness 25% Restrict runtime data privileges and prohibit write actions 25% Present operational evidence and accountable product ownership 20% Proposed VNode outline-level assessment; no vendor accreditation or completed lab validation implied.

DELIVERABLES

Participant deliverables

- Assessed Databricks data and AI solution
- Evidence of relevant access, quality and risk controls
- Demonstration and limitations record

SCOPE

Scope boundaries

Step-by-step lab instructions; Runnable solution code; Packaged source datasets; Executed environment validation

DELIVERY

Delivery options

Count teaching hours, not calendar days. Exclude breaks. Split into 4-hour or 8-hour teaching sessions; schedule complex project work in contiguous blocks. Proposed hours exclude breaks and are subject to pilot validation.

PRIVATE DELIVERY

Plan a private cohort for your team

Scope delivery format, role mix, and rollout timeline with our solutions team.

[Plan Private Delivery](#)
[Book advisory call](#)