ENTERPRISE PROGRAM BRIEF

Applied Generative AI Engineering with Databricks

Build an evaluated Databricks AI application using governed enterprise knowledge.

VNode ITeS | E03

DURATION	LEVEL	FORMAT
56 hours	Practitioner / specialist	Private cohort

AUDIENCE PROFILE

Built for these roles

AI engineers, Data engineers

OVERVIEW

Executive overview

Build an evaluated Databricks AI application using governed enterprise knowledge. Proposed instructor-led duration; delivery subject to environment and lab validation.

READINESS

Prerequisites

- Python API and SQL competence
- Databricks engineering foundations
- AI and Generative AI Foundations, or equivalent demonstrable experience
- Databricks Engineering Foundations, or equivalent demonstrable experience

PROGRAM OUTCOMES

Capabilities your teams will gain

- Deliver a Databricks application using governed data and tools
- Compare quality and diagnose failures using evaluation and traces
- Prove intended catalog and deployed runtime access boundaries
- Provide deployment configuration and accountable knowledge ownership

ENTERPRISE CUSTOMIZATION

Enterprise customization

Tailor this program to your organization's priorities: Build an evaluated Databricks AI application using governed enterprise knowledge.

- Private cohort scheduling
- Equivalent-experience entry review

CURRICULUM

Curriculum roadmap

1

MODULE 1 · 8 HOURS

AI application architecture and model access

Create an authenticated model client and baseline test set.

- Use-case contract
- Foundation model access
- Serving choices
- Cost assumptions

2

MODULE 2 · 8 HOURS

Preparing governed knowledge

Prepare traceable source content and deny access to an unauthorised persona.

- Documents and tables
- Metadata
- Unity Catalog access
- Quality and freshness

3

MODULE 3 · 8 HOURS

Retrieval and context engineering

Build a retrieval path and compare relevant and irrelevant context results.

- Embeddings
- AI Search concepts
- Filtering
- Retrieval evaluation

4

MODULE 4 · 8 HOURS

Agent and tool engineering

Implement a bounded tool-enabled assistant using the validated platform route.

- Framework boundaries
- Agent Bricks architecture
- Tools and MCP
- Approval and state

5

MODULE 5 · 8 HOURS

MLflow evaluation and tracing

Evaluate two versions and diagnose a retrieval or tool failure.

- Datasets
- Scorers
- Human feedback
- Trace inspection

6

MODULE 6 · 8 HOURS

Governed deployment and operations

Deploy with least privilege and test allowed and denied operations.

- Runtime and Apps requirements
- Service identities
- Permissions
- Release and cost controls

7

MODULE 7 · 8 HOURS

Applied GenAI capstone

Demonstrate the application and defend its evaluation, deployment and data-access decisions.

- Reproducibility
- Acceptance thresholds
- Security boundaries
- 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

Demonstrate the application and defend its evaluation, deployment and data-access decisions. Assessed Databricks GenAI application Evidence of relevant access, quality and risk controls Demonstration and limitations record

ASSESSMENT

Assessment

Scenario-based practical assessment Deliver a Databricks application using governed data and tools 30% Compare quality and diagnose failures using evaluation and traces 25% Prove intended catalog and deployed runtime access boundaries 25% Provide deployment configuration and accountable knowledge ownership 20% Proposed VNode outline-level assessment; no vendor accreditation or completed lab validation implied.

DELIVERABLES

Participant deliverables

- Assessed Databricks GenAI application
- 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