



DATABRICKS TRAINING

Databricks Fundamentals Data Ai Administration Course

Master Databricks Data Ai administration. Learn to manage and optimize data and AI workloads efficiently.

DURATION

Flexible

LEVEL

Intermediate

FORMAT

Instructor-Led

-
- Globally Recognized Certification
 - Expert-Led Hands-On Training
 - Flexible Scheduling

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COURSE OVERVIEW

This Databricks Fundamentals Data AI Administration course provides an essential foundation for IT professionals tasked with managing and optimizing Databricks environments. You will dive deep into the administrative aspects of the Databricks Lakehouse Platform, a unified solution for data warehousing and AI. The course covers crucial topics such as cluster management, workspace configuration, security best practices, and performance tuning, ensuring you can efficiently support data engineers, data scientists, and machine learning engineers within your organization. This expertise is vital for maintaining a robust, scalable, and secure data and AI infrastructure.

Participants will gain hands-on experience with core Databricks components, including Apache Spark for processing large datasets, Delta Lake for reliable data storage, and MLflow for managing the machine learning lifecycle. By mastering the administrative tools and methodologies, you will be equipped to streamline data pipelines, secure sensitive information, and ensure the optimal performance of data and AI workloads. This certification positions you as a critical asset capable of enabling data-driven innovation and operational excellence within any enterprise leveraging the Databricks platform.

Level	Intermediate
Vendor	Databricks

COURSE CURRICULUM

01 Module 1: Introduction to Databricks Administration

- Databricks Lakehouse Platform Architecture Overview
- Understanding Databricks Workspaces and User Management
- Navigating the Databricks Admin Console
- Core Concepts of Databricks Clusters (All-Purpose vs. Job Clusters)
- Introduction to Databricks Billing and Cost Management

02 Module 2: Cluster Management and Optimization

- Configuring and Managing Cluster Policies
- Autoscaling and Autotermination Strategies
- Understanding Instance Types and Spot Instances
- Monitoring Cluster Health and Performance Metrics
- Troubleshooting Common Cluster Issues

03 Module 3: Security, Governance, and Access Control

- Implementing Identity and Access Management (IAM) on Databricks
- Workspace Access Control (ACLs) and Permissions
- Table Access Control for Delta Lake
- Data Encryption at Rest and In Transit
- Auditing and Logging for Compliance

04 Module 4: Data Management with Delta Lake Administration

- Administering Delta Lake Tables and File Management
- Optimizing Delta Lake Performance (Z-ordering, Compaction)
- Managing Data Ingestion Pipelines for Reliability
- Databricks Unity Catalog Introduction and Management
- Data Lineage and Governance Best Practices

Module 5: Administering MLflow and AI Workloads

- 05**
- Configuring MLflow Tracking Servers and Artifact Stores
 - Managing MLflow Model Registry and Model Versioning
 - Setting up Databricks Model Serving Endpoints
 - Resource Allocation for Machine Learning Workloads
 - Monitoring and Managing ML Experiments and Runs
- 06** **Module 6: Advanced Administration and Automation**
- Using Databricks APIs for Automated Administration Tasks
 - Integrating Databricks with CI/CD Pipelines for Deployment
 - Backup and Disaster Recovery Strategies for Databricks
 - Cost Optimization Techniques for Large-Scale Deployments
 - Best Practices for Production Databricks Environments

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Databricks Platform Administrator**
- > **Data Operations Engineer specializing in Lakehouse Management**
- > **MLOps Engineer (Databricks Infrastructure focus)**

FREQUENTLY ASKED QUESTIONS

Q: What foundational knowledge is recommended as a prerequisite for this Databricks Fundamentals Data AI Administration course?

While this course covers fundamental administration, a basic understanding of cloud computing concepts (AWS, Azure, or GCP), general IT infrastructure, and familiarity with data concepts like databases or data lakes will be highly beneficial. Experience with scripting languages like Python or basic SQL is also helpful but not strictly required for the administrative focus.

Q: What specific administrative tasks will I be able to confidently perform on the Databricks platform after completing this course?

Upon completion, you will be proficient in tasks such as provisioning and managing Databricks workspaces and clusters, implementing robust security policies and access controls (e.g., table access control, identity management), monitoring resource utilization for cost efficiency, troubleshooting common platform issues, and administering MLflow for effective machine learning lifecycle management within a Databricks environment.

Q: How does mastering Databricks Data AI administration directly contribute to optimizing an organization's data and AI strategy?

Mastering Databricks administration is crucial for maximizing ROI on your data and AI initiatives. You will enable data teams to work more efficiently by providing stable, secure, and performant environments, reduce operational costs through optimized resource allocation and monitoring, and ensure data governance and compliance, all of which are vital for a successful, scalable, and secure data-driven strategy.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

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15+

Years of Excellence

10,000+

Professionals Trained

50+

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Take the next step in your technology career.

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