

## MongoDB Associate Atlas Administrator

OEM: MongoDB • Duration: 3 Days (24 hrs) • Code: Associate-Atlas-Administrator

### COURSE MODULES & TOPICS

#### Getting Started with MongoDB Atlas

- Introduction to MongoDB Atlas — The Developer Data Platform
- MongoDB Architecture Overview: replica sets, sharding, and nodes
- Atlas cluster tiers: Free (M0), Shared (M2/M5), and Dedicated (M10+)
- Creating and deploying an Atlas cluster via the UI
- Exploring the Atlas UI: project dashboard, metrics, and data explorer
- Connecting to Atlas: connection strings, MongoDB Shell, and Compass

#### MongoDB Atlas Administration

- Cluster configuration: instance size, region, and cloud provider selection
- Multi-cloud and multi-region cluster deployments
- Cluster scaling: vertical (tier upgrade) and horizontal (sharding)
- Cluster status and health indicators in the Atlas UI
- Database user and role management at the project level
- Atlas logging: log access, download, and log retention settings
- Maintenance windows and rolling cluster updates
- MongoDB version management and major version upgrade planning

#### MongoDB Atlas Security

- Introduction to security and threat modeling for Atlas
- The Atlas user management model: organization vs. project roles
- Managing Atlas organization and project users
- Atlas database user management: roles, custom roles, and SCRAM auth
- Network access controls: IP access lists and temporary access
- VPC Peering and VNet Peering for private network connectivity
- Private Endpoints (AWS PrivateLink, Azure, GCP) configuration
- Authentication methods: LDAP, X.509 certificates, AWS IAM
- Encryption at rest and in transit (TLS/SSL)
- Atlas Security Auditing: configuring and reviewing audit logs
- GDPR compliance and data sovereignty considerations

## MongoDB Atlas Backup and Recovery

- Backup options for Free and Shared tier clusters
- Cloud Backup for Dedicated tier clusters (M10+)
- Scheduled snapshots: frequency and retention policies
- On-demand snapshots and manual backup triggers
- Point-in-Time Recovery (PIT): enabling and configuring
- Backup Compliance Policies: enforcing backup rules across a project
- Restore procedures: full cluster restore, partial restore, and export
- Cross-region and cross-project restore operations

## Monitoring, Performance, and Alerts

- Real-time Performance Panel: operations, memory, network, and disk
- Atlas metrics dashboards: CPU, connections, opcounters, and replication lag
- Cluster health and status: primary/secondary node states
- Query Profiler: identifying and analyzing slow operations
- Performance Advisor: index recommendations and query insights
- Namespace Insights: collection-level metrics and activity
- Configuring alerts: conditions, notification channels, and escalation
- Integrations: PagerDuty, Slack, email, and webhook alert delivery

## MongoDB Atlas CLI

- Installing the Atlas CLI on macOS, Windows, and Linux
- Authenticating with the Atlas CLI (API keys and browser-based auth)
- Creating and managing clusters via CLI commands
- Connecting to Atlas clusters using the Atlas CLI
- Automating Atlas operations: scripting cluster management tasks
- Atlas CLI reference: key commands for deployments, users, and backups

## Data Migration to MongoDB Atlas

- Live Migration Service: zero-downtime migration from self-managed MongoDB
- mongomirror for replication-based migration
- mongodump and mongorestore for smaller datasets
- Importing data from JSON and CSV files using the Atlas UI
- Migration best practices and pre-migration checklist

## Exam Preparation — Associate Atlas Administrator

- Exam overview: 81 questions, pass/fail, ~90-minute duration (C100AT)
- Domain 1: Cluster Deployment and Management
- Domain 2: Security — IAM, network controls, encryption, and auditing
- Domain 3: Backup, Recovery, and Compliance
- Domain 4: Monitoring, Logging, and Performance Optimization

- Domain 5: Upgrades, Maintenance, and Atlas Best Practices
- Recommended hands-on practice and study resources