



## **Managing Data in the Cloud with AWS and Azure Training Course**

**#DM6884**

# Managing Data in the Cloud with AWS and Azure Training Course

## Course Introduction / Overview:

The move to the cloud has changed the way businesses manage their data, offering unparalleled scalability, flexibility, and cost efficiency. However, it also brings a new set of challenges related to security, governance, and architecture. This training course gives a comprehensive overview of how to manage data effectively in the cloud using the industry's two leading platforms, Amazon Web Services (AWS) and Microsoft Azure. We will cover everything from basic data storage and migration to advanced topics like data warehousing, real-time analytics, and machine learning. The course addresses the unique features and services of both platforms, helping participants to make informed decisions about which tools to use for different business needs. As Thomas Erl notes in his book "Cloud Computing: Concepts, Technology & Architecture," the transition to cloud-based solutions requires a deep understanding of new architectural patterns. At BIG BEN Training Center, we recognize that mastering cloud data management is a key skill for the future. This training course will give participants the essential knowledge to architect, implement, and secure a robust cloud data infrastructure that supports their organization's goals.

## Target Audience / This training course is suitable for:

- Data architects and data engineers.
- Cloud administrators and solutions architects.
- Data analysts and business intelligence professionals.
- IT managers and directors.
- Anyone involved in cloud migration projects.
- Database administrators.
- Software developers.

## Target Sectors and Industries:

- Technology and software.
- Financial services.
- Retail and e-commerce.
- Manufacturing.
- Telecommunications.
- Government agencies and the public sector.
- Healthcare.

## Target Organizations Departments:

- IT and Cloud Services.
- Data and Analytics.
- Software Development.
- Business Intelligence.
- Data Science.
- Operations.

## Course Offerings:

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

- Design and implement scalable cloud data architecture.
- Manage data storage and migration on AWS and Azure.
- Use cloud-native tools for data warehousing and analytics.
- Implement data governance and security in a cloud environment.
- Connect different cloud data services to build a complete solution.
- Optimize cloud data costs and performance.
- Understand the key differences between AWS and Azure data services.
- Develop a cloud data strategy for their organization.

## Course Methodology:

This training course is designed with a hands-on, comparative approach. We will use interactive labs and real-world case studies that show how different data management challenges are solved using both AWS and Azure. Participants will work on a series of practical exercises to migrate data, build a data warehouse, and set up a data pipeline in both environments. This practical experience will help them understand the strengths and weaknesses of each platform. Our expert trainers, who have extensive experience with both cloud providers, will provide direct feedback and support. At BIG BEN Training Center, we believe that understanding the similarities and differences between platforms is key to making the best architectural decisions. Our methodology makes sure you leave with the practical skills needed to succeed in a multi-cloud world.

## Course Agenda (Course Units):

### Unit One: Introduction to Cloud Data Management.

- The benefits and challenges of cloud data.
- AWS vs. Azure: an architectural overview.
- Core data services on each platform.
- Planning a cloud data strategy.
- Data migration strategies and best practices.
- Data governance in a cloud environment.
- Cost management for cloud data.

### Unit Two: Cloud Data Storage Services.

- AWS S3 vs. Azure Blob Storage.
- Choosing the right storage tier for your data.
- Managing data lifecycles.
- Implementing security for cloud storage.
- Data backup and disaster recovery.
- Using storage gateways.
- Best practices for unstructured data.

### **Unit Three: Cloud Data Warehousing and Analytics.**

- Amazon Redshift vs. Azure Synapse Analytics.
- Designing a cloud data warehouse.
- Using cloud services for real-time analytics.
- Data lake concepts with AWS Lake Formation and Azure Data Lake.
- Business intelligence tools on each platform.
- Querying data in the cloud.
- Case study: building a data pipeline for analytics.

### **Unit Four: Cloud Database Services.**

- Managed relational databases: Amazon RDS vs. Azure SQL Database.
- NoSQL databases: Amazon DynamoDB vs. Azure Cosmos DB.
- When to use a managed database.
- Database migration tools and strategies.
- Database security and performance.
- Choosing the right database for your application.
- Serverless databases.

### **Unit Five: Security and Advanced Topics.**

- Data encryption at rest and in transit.
- Identity and access management for data services.
- Monitoring and auditing cloud data usage.
- Introduction to machine learning with data in the cloud.
- Future trends in cloud data management.
- Final project: designing cloud data architecture for a business.

## **FAQ:**

### **Qualifications required for registering to this course?**

There are no requirements.

### **How long is each daily session, and what is the total number of training hours for the course?**

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

### **Something to think about:**

Given the continuous innovation of cloud services and the differences between major platforms, how can an organization build a cloud data strategy that is both flexible enough to adapt to new technologies and standardized enough to ensure consistent security and governance?

## **What unique qualities does this course offer compared to other courses?**

This training course is unique because it provides a direct, side-by-side comparison of the data management services offered by AWS and Azure. Instead of focusing on just one platform, this program gives participants a dual-cloud perspective, helping them understand the similarities and differences in architecture, services, and security. The course is highly practical, with hands-on labs that let you work with both platforms. This comparative approach is incredibly valuable for professionals who need to make strategic decisions about cloud adoption, manage multi-cloud environments, or simply stay relevant in a competitive industry. Our program goes beyond basic tutorials, focusing on architectural best practices and real-world business scenarios, making it a great investment for anyone serious about mastering cloud data management.