Planning and Designing Databases on AWS

CODICE	**DT0163**
DURATA	**3 gg**
PREZZO	**1.350,00 €**
EXAM	

DESCRIZIONE

Master the art of designing databases for your AWS cloud workloads. Explore all the AWS features and services available for building databases.

In this course, you will learn about the process of planning and designing both relational and nonrelational AWS databases. It will teach you how to use workload requirements to define database design considerations and also explore the features and capabilities of the eight AWS database services. By the end of the course, you will be able to determine which AWS database service is right for your workloads and design the database to meet your requirements.

This course leads to AWS Certified Database - Specialty Certification.

OBIETTIVI RAGGIUNTI

- Apply database concepts, database management, and data modeling techniques
- Evaluate hosting databases on Amazon EC2 instances
- Evaluate relational AWS database services and their features (Amazon RDS, Amazon Aurora, and Amazon Redshift)
- Evaluate nonrelational AWS database services and their features (Amazon DocumentDB, Amazon DynamoDB, Amazon ElastiCache, Amazon Neptune, and Amazon QLDB)
- Examine how the design criteria apply to each service
- Apply management principles based on the unique features of each service

TARGET

- Data Engineers who are new to designing cloud databases or nonrelational databases
- Solutions Architects who are designing services or architectures that are integrated with databases
- Developers that are building cloud database-enabled applications

PREREQUISTI

- Familiarity with AWS Database Services, equivalent to AWS Database Offerings digital training
- Familiarity with basic data analytics concepts, equivalent to Data Analytics Fundamentals digital training
- Familiarity with cloud computing concepts & networking and encryption concepts
- Understanding of database design concepts, and/or data modeling for relational or non-relational databases
- Understanding of the three V's of data (volume, velocity, and variety)
- Architecting on AWS

CONTENUTI

Module 1: Database concepts and general guidelines

- Databases in the cloud
- Database design principles
- Transactional compliance

Module 2: Database Planning and Design

- Workload requirements
- Design considerations

Module 3: Databases on Amazon EC2

- Amazon EC2 for hosting databases

Module 4: Purpose-Built Databases

- The journey to AWS
- Data modeling basics

Module 5: Database on Amazon RDS

- Amazon RDS overview
- Amazon RDS distinguishing features
- Amazon RDS design considerations
- Hands-on Lab: working with Amazon RDS databases

Module 6: Database in Amazon Aurora

- Amazon Aurora overview
- Amazon Aurora distinguishing features
- Amazon Aurora design considerations
- Hands-on Lab: working with Amazon Aurora databases

Module 7: Amazon DocumentDB (with MongoDB compatibility)

- Amazon DocumentDB
- Amazon DocumentDB design considerations
- Hands-on Lab: working with Amazon DocumentDB databases

Module 8: Amazon DynamoDB

- Amazon DynamoDB
- Amazon DynamoDB data modeling
- Amazon DynamoDB distinguishing features
- Amazon DynamoDB design considerations
- Hands-on Lab: working with Amazon DynamoDB Tables

Module 9: Databases in Amazon Neptune

- Amazon Neptune
- Amazon Neptune design considerations

Module 10: Databases in Amazon Quantum Ledger Database (Amazon QLDB)

- Amazon QLDB overview
- Amazon QLDB Design Considerations

Module 11: Databases in Amazon ElastiCache

- Amazon ElastiCache overview
- Amazon ElastiCache for Memcached
- Amazon ElastiCache for Redis

Module 12: Data Warehousing in Amazon Redshift

- Amazon Redshift
- Amazon Redshift distinguishing features
- Amazon Redshift data modeling
- Amazon Redshift design considerations
- Hands-on Lab: working with Amazon Redshift Clusters