Planning and Designing Databases on AWS – Intensive Training («AWSA04»)

Learn about the process of planning and designing both relational and nonrelational AWS databases.

Duration: 3 days
Price: 2'500.–
Course documents: Digital original AWS course books

Content

This course 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.

Outline:

Day One

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 databases on Amazon EC2 and Amazon RDS

- The journey to AWS
- Data modeling basics

Module 5: Amazon RDS

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

Module 6: Amazon Aurora

- Amazon Aurora overview
- Amazon Aurora distinguishing features
- Amazon Aurora design considerations

Day Two

Module 6: Amazon Aurora (continued)

- Hands-on Lab: Working with Amazon Aurora databases

Module 7: Amazon DocumentDB (with MongoDB compatibility)

- Amazon DocumentDB overview
- Amazon DocumentDB design considerations
- Amazon DocumentDB distinguishing features
- Hands-on Lab: Working with Amazon DocumentDB databases

Module 8: Amazon DynamoDB

- Amazon DynamoDB overview
- Amazon DynamoDB data modeling
- Amazon DynamoDB distinguishing features
- Amazon DynamoDB design considerations
- Hands-on Lab: Working with Amazon DynamoDB

Day Three

Module 9: Databases in Amazon Neptune

- Amazon Neptune overview
- 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 overview
- Amazon Redshift distinguishing features
- Amazon Redshift data modeling
- Amazon Redshift design considerations
- Hands-on Lab: Working with Amazon Redshift Clusters

Module 13: Course Overview

Key Learnings

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

Target audience

This course is intended for the following job roles:

- Solution Architect
- Developer
- DevOps
- Data Analytics

Why should you attend this specific course? What are my benefits from taking this course? The **Voice of the Instructor answers these questions**. We have asked our instructor team to write a short text about WHY this course is very relevant for the respective job roles and what you can expect from attending the course. You can find this section in the course description under the «*Additional Information*» section.

Requirements

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

- Developing on AWS – Intensive Training («AWSD01»)

Additional information

Voice of the Instructor

«Planning and Designing Databases on AWS» is an excellent course for those who need to be aware of design options when building solutions that require persisting data in various forms of databases on AWS. We would like to invite you to this course to learn something new about databases on AWS. This course is not intended for those just beginning their journey in the database world, but anyone curious to learn about Databases on AWS is most welcome!

You would benefit greatly if you already have a sound understanding of the general purpose of databases in building software solutions, and the challenges builders face during the software development lifecycle. We welcome DBAs at any level, Solution Architects, and Developers - together, we will build on the knowledge you bring on board. Building database-based solutions in the cloud requires a different approach and offers unique opportunities compared to on-premises environments. Explaining these differences to you will be one of our priorities.

Although we will not engage in programming during this course, you will be able to discuss some of the most important development architectures used when building database solutions. There will be a few hands-on labs for you to engage with and observe in practice some of the topics we discuss during the training. This course offers a so-called helicopter view, where we will discuss the core principles of solution design and decision-making when databases are involved. While the amount of content in this course is substantial, we will not delve into the detailed technical depths of specific technologies or individual databases - technicalities become easy once you understand the purpose and design, which is precisely what we will be discussing.

We look forward to welcoming you to this course and enjoying three insightful days of presenting AWS database offerings, discussing them with you, and guiding you to a better understanding of AWS database services and the solutions you can build with them.

Further courses

- Developing Serverless Solutions on AWS – Intensive Training («AWSS08»)

Any questions?

We are happy to advise you on +41 44 447 21 21 or info@digicomp.ch. You can find detailed information about dates on www.digicomp.ch/courses-it-provider/amazon-web-services-aws/aws-developer/course-planning-and-designing-databases-on-aws-intensive-training