Data Engineering on AWS (DEAWS)

ID DEAWS **Price** CHF 1,995.—(excl. VAT) **Duration** 3 days

Who should attend

This course is designed for professionals who are interested in designing, building, optimizing, and securing data engineering solutions using AWS services.

Prerequisites

We recommend that attendees of this course have:

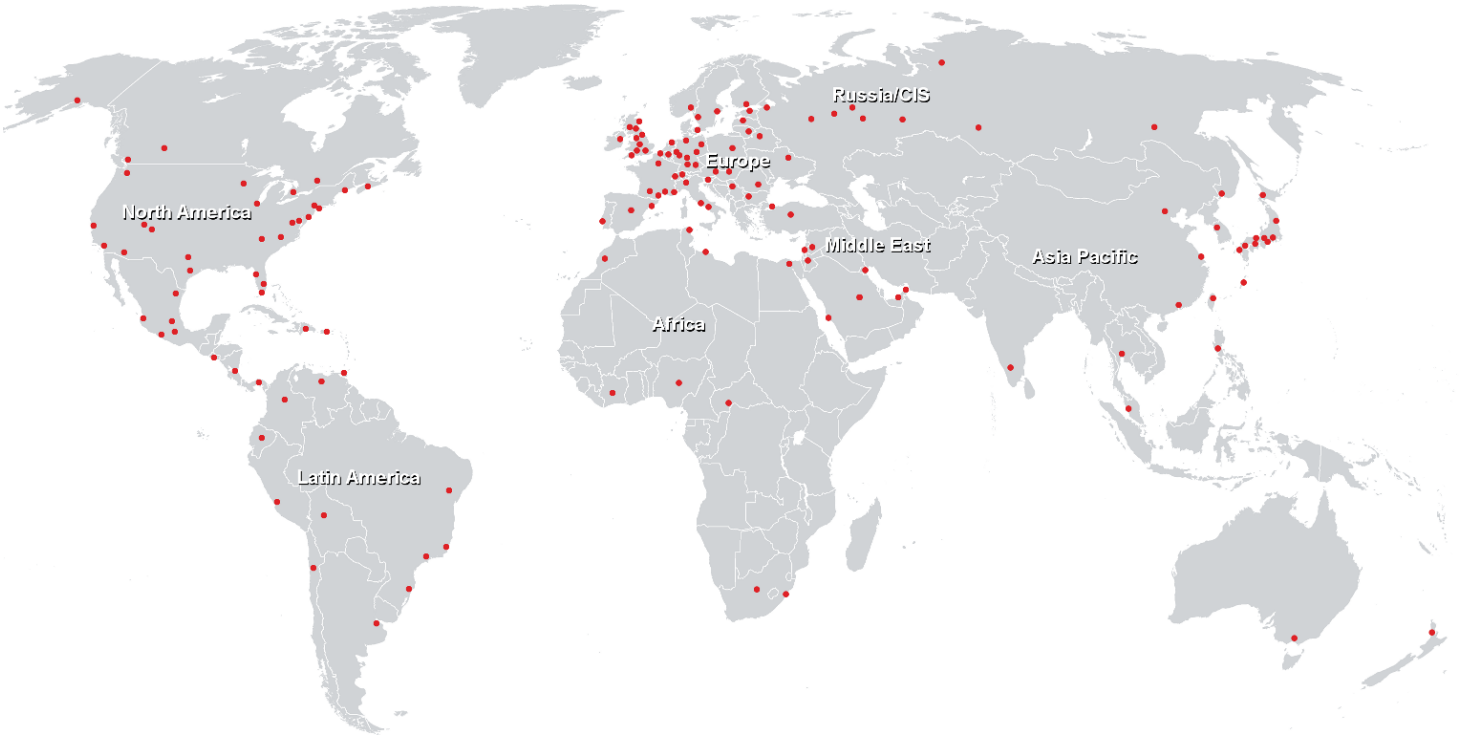
- Familiarity with basic machine learning concepts, such as supervised and unsupervised learning, regression, classification, and clustering algorithms.
- Working knowledge of Python programming language and common data science libraries like NumPy, Pandas, and Scikit-learn.
- Basic understanding of cloud computing concepts and familiarity with the AWS platform.
- Familiarity with SQL and relational databases is recommended but not mandatory.
- Experience with version control systems like Git is beneficial but not required.

Course Objectives

In this course, you will learn to do the following:

- Understand the foundational roles and key concepts of data engineering, including data personas, data discovery, and relevant AWS services.
- Identify and explain the various AWS tools and services crucial for data engineering, encompassing orchestration, security, monitoring, CI/CD, IaC, networking, and cost optimization.
- Design and implement a data lake solution on AWS, including storage, data ingestion, transformation, and serving data for consumption.
- Optimize and secure a data lake solution by implementing open table formats, security measures, and troubleshooting common issues.
- Design and set up a data warehouse using Amazon Redshift Serverless, understanding its architecture, data ingestion, processing, and serving capabilities.
- Apply performance optimization techniques to data warehouses in Amazon Redshift, including monitoring, data optimization, query optimization, and orchestration.
- Manage security and access control for data warehouses in Amazon Redshift, understanding authentication, data security, auditing, and compliance.
- Design effective batch data pipelines using appropriate AWS services for processing and transforming data.
- Implement comprehensive strategies for batch data pipelines, covering data processing, transformation, integration, cataloging, and serving data for consumption.
- Optimize, orchestrate, and secure batch data pipelines, demonstrating advanced skills in data processing automation and security.
- Architect streaming data pipelines, understanding various use cases, ingestion, storage, processing, and analysis using AWS services.
- Optimize and secure streaming data solutions, including compliance considerations and access control.

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