

## Szkolenie: AWS Building Data Analytics Solutions Using Amazon Redshift



### Cel szkolenia:

In this course, you will build a data analytics solution using Amazon Redshift, a cloud data warehouse service. The course focuses on the data collection, ingestion, cataloging, storage, and processing components of the analytics pipeline. You will learn to integrate Amazon Redshift with a data lake to support both analytics and machine learning workloads. You will also learn to apply security, performance, and cost management best practices to the operation of Amazon Redshift.

### Course objectives

In this course, you will learn to:

- Compare the features and benefits of data warehouses, data lakes, and modern data architectures
- Design and implement a data warehouse analytics solution
- Identify and apply appropriate techniques, including compression, to optimize data storage
- Select and deploy appropriate options to ingest, transform, and store data
- Choose the appropriate instance and node types, clusters, auto scaling, and network topology for a particular business use case
- Understand how data storage and processing affect the analysis and visualization mechanisms needed to gain actionable business insights
- Secure data at rest and in transit
- Monitor analytics workloads to identify and remediate problems
- Apply cost management best practices

### Intended audience

This course is intended for data warehouse engineers, data platform engineers, and architects and operators who build and manage data analytics pipelines.

### Plan szkolenia:

- Module A: Overview of Data Analytics and the Data Pipeline
  - Data analytics use cases
  - Using the data pipeline for analytics

- Module 1: Using Amazon Redshift in the Data Analytics Pipeline
  - Why Amazon Redshift for data warehousing?
  - Overview of Amazon Redshift
- Module 2: Introduction to Amazon Redshift
  - Amazon Redshift architecture
  - Interactive Demo 1: Touring the Amazon Redshift console
  - Amazon Redshift features
  - Practice Lab 1: Load and query data in an Amazon Redshift cluster
- Module 3: Ingestion and Storage
  - Ingestion
  - Interactive Demo 2: Connecting your Amazon Redshift cluster using a Jupyter notebook with Data API
  - Data distribution and storage
  - Interactive Demo 3: Analyzing semi-structured data using the SUPER data type
  - Querying data in Amazon Redshift
  - Practice Lab 2: Data analytics using Amazon Redshift Spectrum
- Module 4: Processing and Optimizing Data
  - Data transformation
  - Advanced querying
  - Practice Lab 3: Data transformation and querying in Amazon Redshift
  - Resource management
  - Interactive Demo 4: Applying mixed workload management on Amazon Redshift
  - Automation and optimization
  - Interactive demo 5: Amazon Redshift cluster resizing from the dc2.large to ra3.xlplus cluster
- Module 5: Security and Monitoring of Amazon Redshift Clusters
  - Securing the Amazon Redshift cluster
  - Monitoring and troubleshooting Amazon Redshift clusters
- Module 6: Designing Data Warehouse Analytics Solutions
  - Data warehouse use case review
  - Activity: Designing a data warehouse analytics workflow
- Module B: Developing Modern Data Architectures on AWS
  - Modern data architectures

## Wymagania:

Students with a minimum one-year experience managing data warehouses will benefit from this

course. We recommend that attendees of this course have:

- Completed either AWS Technical Essentials or Architecting on AWS
- Completed Building Data Lakes on AWS

## Poziom trudności



## Certyfikaty:

The participants will obtain certificates signed by AWS (course completion).

This course together with Building Data Lakes on AWS, also helps you prepare for the AWS Certified Data Analytics - Specialty DAS- C01 exam and this way gain the AWS Certified Data Analytics - Specialty title - specialty level. AWS certification exams are offered at Pearson Vue test centers worldwide <https://home.pearsonvue.com/Clients/AWS.aspx>

## Prowadzący:

AWS Authorized Instructor (AAI)