Building Data Analytics Solutions Using Amazon Redshift

Category: AI, Data & Analytics | **Vendor:** Amazon Web Services

Duration: 8.00 hours (1 days) **6.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

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.

About This Course

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.

Who Should Attend

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

Completed either AWS Technical Essentials or Architecting on AWS

Completed Building Data Lakes on AWS

Prerequisites & Entry Requirements

General Prerequisites:

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 (AWSE) or Architecting on AWS (AWSA)
- Completed Building Data Lakes on AWS (BDLA)

Learning Outcomes

Upon successful completion of this course, participants will be able to:

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

Detailed Course Outline

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

, Module A: Overview of Data Analytics and the Data Pipeline, Module 1: Using Amazon Redshift in the Data Analytics Pipeline, Module 2: Introduction to Amazon Redshift, Module 4: Processing and Optimizing Data, Module 5: Security and Monitoring of Amazon Redshift Clusters, Module 6: Designing Data Warehouse Analytics Solutions, Module 3: Ingestion and Storage, Data API, Module B: Developing Modern Data Architectures on AWS

Skills You Will Learn:

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

Additional Course Details

Nexus Humans Building Data Analytics Solutions Using Amazon Redshift training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the Building Data Analytics Solutions Using Amazon Redshift course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for Building Data Analytics Solutions Using Amazon Redshift?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 1-day Building Data Analytics Solutions Using Amazon Redshift course provides up to 6.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Building Data Analytics Solutions Using Amazon Redshift training?

The training takes place over 1 day(s), with each day lasting approximately 8.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Building Data Analytics Solutions Using Amazon Redshift?

Yes, we provide corporate training, dedicated training, and closed classes for Building Data Analytics Solutions Using Amazon Redshift. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Building Data Analytics Solutions Using Amazon Redshift, Data Analysis, BDASAR, Amazon Web Services, vILT

Q: Why choose Nexus Human for Building Data Analytics Solutions Using Amazon Redshift?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Building Data Analytics Solutions Using Amazon Redshift training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

Professional Training & Development

Email: info@nexushuman.com

Website: www.nexushuman.com

Phone: +353 1 889 8700 (Ireland) | +44 20 8142 8961 (UK)

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