

DATA INTEGRATION & FEDERATION

## Analytics in 15

Build Apache Spark Apps and Integrate Them with Amazon Redshift

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#### **Amazon Redshift**





Price-performance at any scale



Easy analytics and machine learning for everyone



Analyze all your data



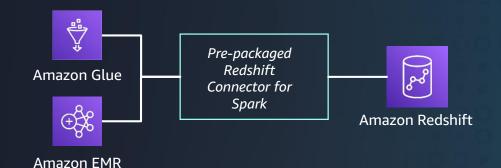
Secure and reliable



#### [GENERAL AVAILABILITY]

# Amazon Redshift integration for Apache Spark

Simplify and speed up Apache Spark applications accessing Amazon Redshift data from AWS analytics services



Author Apache Spark applications using Java, Python, Scala, with access to rich, curated data in your data warehouse

No manual setup and maintenance of uncertified versions of Spark-Redshift open-source connectors

Improved performance with only relevant data moved from Redshift to consuming applications

Improved security with IAM-based credentials



#### Demo



#### Example Corp.

Example Corp. is a fictitious company, which provides ticket sales and distribution for live events across the country. An important aspect of the business is to provide tickets to end-customers as competitive prices. They plan to modernize the architecture to provide forecast for future sales which will also help determine ticket sale prices.

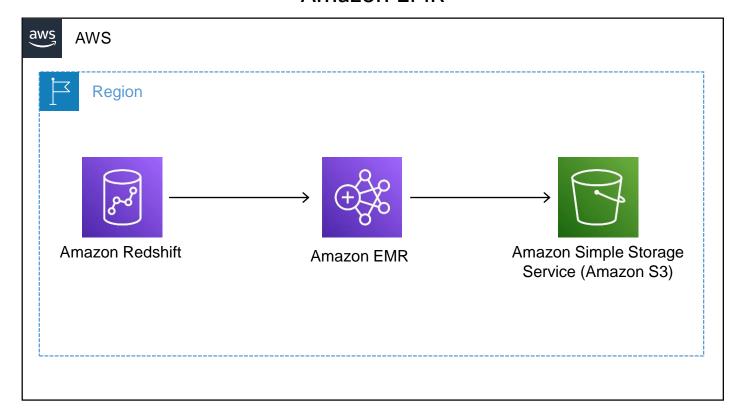


#### Consume data using Amazon EMR

Consume data from Amazon Redshift using Apache Spark with Amazon EMR

Persona: Data Engineer

#### Consume Amazon Redshift data using Apache Spark with Amazon EMR



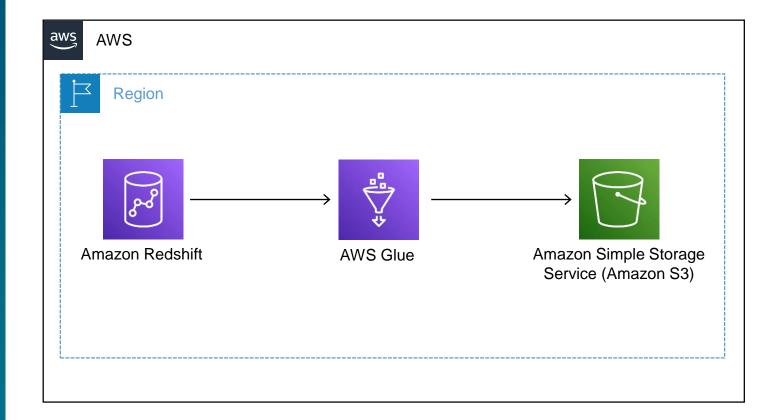


#### **Consume data using AWS Glue**

Consume data from Amazon Redshift using Apache Spark with AWS Glue

Persona: Data Engineer

Consume Amazon Redshift data using Apache Spark with AWS Glue





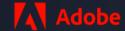
#### **Demo Recap**

- Get started in minutes
- No maintenance or operational overhead
- Secure access through AWS IAM-based authentication
- Faster performance with predicate pushdown capabilities



# Amazon Redshift Streaming Ingestion

Ingest streaming data into your data warehouse for real-time analytics



















#### PREVIEW

#### Amazon Aurora Zero-ETL to Amazon Redshift

Boost analytical query performance



No ETL pipelines



Real-time analytics and machine learning on transactional data



**Consolidated insights** from multiple Aurora databases



#### **PREVIEW**

### Auto-copy from **Amazon S3**

Simplified & automated file ingestion from Amazon S3 into Amazon Redshift



Continuously monitoring S3 folder New file(s) detected

Redshift copy job



Ingestion automatically starts



**Amazon** Redshift Table







Simple, low-code data ingestion

Avoid re-ingestion and manual tracking of loaded files

Easily convert your existing COPY statements into automatic ingestion jobs

Automatic ingestion of new data from Amazon S3 based on user defined configurations



# AWS Data Exchange is fully integrated with Amazon Redshift data sharing



Find and subscribe to third-party data

No data copies or movement

Automated licensing and contracting

Secure and **governed collaboration** with your partners

Goldman Sachs

moderna





# Thank you!

#### To learn more, please visit:

- ✓ Amazon Redshift webpage: <u>aws.amazon.com/redshift</u>
- Amazon Redshift new feature page: <u>aws.amazon.com/redshift/whats-new/</u>
- ✓ Analytics webpage: <u>aws.amazon.com/big-data/datalakes-and-analytics/</u>
- ✓ Amazon Redshift Integration for Apache Spark: <a href="mailto:aws.amazon.com/redshift/features/integration-for-apache-spark/">aws.amazon.com/redshift/features/integration-for-apache-spark/</a>
- ✓ Amazon Redshift Integration for Apache Spark Blog: <u>aws.amazon.com/blogs/big-data/simplify-and-speed-up-apache-spark-applications-on-amazon-redshift-data-with-amazon-redshift-integration-for-apache-spark/</u>