Amazon-Web-Services

Exam Questions DAS-C01

AWS Certified Data Analytics - Specialty

NEW QUESTION 1
A company has a data lake on AWS that ingests sources of data from multiple business units and uses Amazon Athena for queries. The storage layer is Amazon S3 using the AWS Glue Data Catalog. The company wants to make the data available to its data scientists and business analysts. However, the company first needs to manage data access for Athena based on user roles and responsibilities.
What should the company do to apply these access controls with the LEAST operational overhead?

A. Define security policy-based rules for the users and applications by role in AWS Lake Formation.
B. Define security policy-based rules for the users and applications by role in AWS Identity and Access Management (IAM).
C. Define security policy-based rules for the tables and columns by role in AWS Glue.
D. Define security policy-based rules for the tables and columns by role in AWS Identity and Access Management (IAM).

Answer: D

NEW QUESTION 2
A company has an application that ingests streaming data. The company needs to analyze this stream over a 5-minute timeframe to evaluate the stream for anomalies with Random Cut Forest (RCF) and summarize the current count of status codes. The source and summarized data should be persisted for future use.
Which approach would enable the desired outcome while keeping data persistence costs low?

A. Ingest the data stream with Amazon Kinesis Data Stream
B. Have an AWS Lambda consumer evaluate the stream, collect the number status codes, and evaluate the data against a previously trained RCF mode
C. Persist the source and results as a time series to Amazon DynamoDB.
D. Ingest the data stream with Amazon Kinesis Data Stream
E. Have a Kinesis Data Analytics application evaluate the stream over a 5-minute window using the RCF function and summarize the count of status code
F. Persist the source and results to Amazon S3 through output delivery to Kinesis Data Firehouse.
G. Ingest the data stream with Amazon Kinesis Data Firehose with a delivery frequency of 1 minute or 1 MB in Amazon S3. Ensure Amazon S3 triggers an event to invoke an AWS Lambda consumer that evaluates the batch data, collects the number status codes, and evaluates the data against a previously trained RCF mode
H. Persist the source and results as a time series to Amazon DynamoDB.
I. Ingest the data stream with Amazon Kinesis Data Firehose with a delivery frequency of 5 minutes or 1 MB into Amazon S3. Have a Kinesis Data Analytics application evaluate the stream over a 1-minute window using the RCF function and summarize the count of status code
J. Persist the results to Amazon S3 through a Kinesis Data Analytics output to an AWS Lambda integration.

Answer: B

NEW QUESTION 3
A company is building an analytical solution that includes Amazon S3 as data lake storage and Amazon Redshift for data warehousing. The company wants to use Amazon Redshift Spectrum to query the data that is stored in Amazon S3.
Which steps should the company take to improve performance when the company uses Amazon Redshift Spectrum to query the S3 data files? (Select THREE)
Use gzip compression with individual file sizes of 1-5 GB

A. Use a columnar storage file format
B. Partition the data based on the most common query predicates
C. Split the data into KB-sized files.
D. Keep all files about the same size.
E. Use file formats that are not splittable

Answer: BCD

NEW QUESTION 4
A data analyst is using Amazon QuickSight for data visualization across multiple datasets generated by applications. Each application stores files within a separate Amazon S3 bucket. AWS Glue Data Catalog is used as a central catalog across all application data in Amazon S3. A new application stores its data within a separate S3 bucket. After updating the catalog to include the new application data source, the data analyst created a new Amazon QuickSight data source from an Amazon Athena table, but the import into SPICE failed.
How should the data analyst resolve the issue?

A. Edit the permissions for the AWS Glue Data Catalog from within the Amazon QuickSight console.
B. Edit the permissions for the new S3 bucket from within the Amazon QuickSight console.
C. Edit the permissions for the AWS Glue Data Catalog from within the AWS Glue console.
D. Edit the permissions for the new S3 bucket from within the S3 console.

Answer: B

NEW QUESTION 5
A company owns facilities with IoT devices installed across the world. The company is using Amazon Kinesis Data Streams to stream data from the devices to Amazon S3. The company's operations team wants to get insights from the IoT data to monitor data quality at ingestion. The insights need to be derived in near-real time, and the output must be logged to Amazon DynamoDB for further analysis.
Which solution meets these requirements?

A. Connect Amazon Kinesis Data Analytics to analyze the stream dat
B. Save the output to DynamoDB by using the default output from Kinesis Data Analytics.
C. Connect Amazon Kinesis Data Analytics to analyze the stream dat
D. Save the output to DynamoDB by using an AWS Lambda function.
E. Connect Amazon Kinesis Data Firehose to analyze the stream data by using an AWS Lambda function.Save the output to DynamoDB by using the default output from Kinesis Data Firehose.
F. Connect Amazon Kinesis Data Firehose to analyze the stream data by using an AWS Lambda function.Save the data to Amazon S3. Then run an AWS Glue job on schedule to ingest the data into DynamoDB.

Answer: C

NEW QUESTION 6
A large ride-sharing company has thousands of drivers globally serving millions of unique customers every day. The company has decided to migrate an existing data mart to Amazon Redshift. The existing schema includes the following tables.
A trips fact table for information on completed rides. A drivers dimension table for driver profiles. A customers fact table holding customer profile information.
The company analyzes trip details by date and destination to examine profitability by region. The drivers data rarely changes. The customers data frequently changes.
What table design provides optimal query performance?

A. Use DISTSTYLE KEY (destination) for the trips table and sort by dat
B. Use DISTSTYLE ALL for the drivers and customers tables.
C. Use DISTSTYLE EVEN for the trips table and sort by dat
D. Use DISTSTYLE ALL for the drivers table.Use DISTSTYLE EVEN for the customers table.
E. Use DISTSTYLE KEY (destination) for the trips table and sort by dat
F. Use DISTSTYLE ALL for the drivers tabl
G. Use DISTSTYLE EVEN for the customers table.
H. Use DISTSTYLE EVEN for the drivers table and sort by dat
I. Use DISTSTYLE ALL for both fact tables.

Answer: C

Explanation:
https://www.matillion.com/resources/blog/aws-redshift-performance-choosing-the-right-distribution-styles/#:~:t
https://docs.aws.amazon.com/redshift/latest/dg/c_best-practices-best-dist-key.html

NEW QUESTION 7
A company has a marketing department and a finance department. The departments are storing data in Amazon S3 in their own AWS accounts in AWS Organizations. Both departments use AWS Lake Formation to catalog and secure their data. The departments have some databases and tables that share common names.
The marketing department needs to securely access some tables from the finance department. Which two steps are required for this process? (Choose two.)

A. The finance department grants Lake Formation permissions for the tables to the external account for the marketing department.
B. The finance department creates cross-account IAM permissions to the table for the marketing department role.
C. The marketing department creates an IAM role that has permissions to the Lake Formation tables.

Answer: AB

Explanation:
Granting Lake Formation Permissions Creating an IAM role (AWS CLI)

NEW QUESTION 8
A university intends to use Amazon Kinesis Data Firehose to collect JSON-formatted batches of water quality readings in Amazon S3. The readings are from 50 sensors scattered across a local lake. Students will query the stored data using Amazon Athena to observe changes in a captured metric over time, such as water temperature or acidity. Interest has grown in the study, prompting the university to reconsider how data will be stored.
Which data format and partitioning choices will MOST significantly reduce costs? (Choose two.)

A. Store the data in Apache Avro format using Snappy compression.
B. Partition the data by year, month, and day.
C. Store the data in Apache ORC format using no compression.
D. Store the data in Apache Parquet format using Snappy compression.
E. Partition the data by sensor, year, month, and day.

Answer: CD

NEW QUESTION 9
A hospital is building a research data lake to ingest data from electronic health records (EHR) systems from multiple hospitals and clinics. The EHR systems are independent of each other and do not have a common patient identifier. The data engineering team is not experienced in machine learning (ML) and has been asked to generate a unique patient identifier for the ingested records.
Which solution will accomplish this task?

A. An AWS Glue ETL job with the FindMatches transform
B. Amazon Kendra
C. Amazon SageMaker Ground Truth
D. An AWS Glue ETL job with the ResolveChoice transform

Answer: A

Explanation:
Matching Records with AWS Lake Formation FindMatches

NEW QUESTION 10
A gaming company is collecting cllckstream data into multiple Amazon Kinesis data streams. The company uses Amazon Kinesis Data Firehose delivery streams to store the data in JSON format in Amazon S3 Data scientists use Amazon Athena to query the most recent data and derive business insights. The company wants to reduce its Athena costs without having to recreate the data pipeline. The company prefers a solution that will require less management effort
Which set of actions can the data scientists take immediately to reduce costs?

A. Change the Kinesis Data Firehose output format to Apache Parquet Provide a custom S3 object YYYYMMDD prefix expression and specify a large buffer size

For the existing data, run an AWS Glue ETL job to combine and convert small JSON files to large Parquet files and add the YYYYMMDD prefix Use ALTER TABLE ADD PARTITION to reflect the partition on the existing Athena table.
B. Create an Apache Spark Job that combines and converts JSON files to Apache Parquet files Launch an Amazon EMR ephemeral cluster daily to run the Spark job to create new Parquet files in a different S3 location Use ALTER TABLE SET LOCATION to reflect the new S3 location on the existing Athena table.
C. Create a Kinesis data stream as a delivery target for Kinesis Data Firehose Run Apache Flink on Amazon Kinesis Data Analytics on the stream to read the streaming data, aggregate ikand save it to Amazon S3 in Apache Parquet format with a custom S3 object YYYYMMDD prefix Use ALTER TABLE ADD PARTITION to reflect the partition on the existing Athena table
D. Integrate an AWS Lambda function with Kinesis Data Firehose to convert source records to Apache Parquet and write them to Amazon S3 In parallel, run an AWS Glue ETL job to combine and convert existing JSON files to large Parquet files Create a custom S3 object YYYYMMDD prefix Use ALTER TABLE ADD PARTITION to reflect the partition on the existing Athena table.

Answer: D

NEW QUESTION 10
A company has a business unit uploading .csv files to an Amazon S3 bucket. The company's data platform team has set up an AWS Glue crawler to do discovery, and create tables and schemas. An AWS Glue job writes processed data from the created tables to an Amazon Redshift database. The AWS Glue job handles column mapping and creating the Amazon Redshift table appropriately. When the AWS Glue job is rerun for any reason in a day, duplicate records are introduced into the Amazon Redshift table.
Which solution will update the Redshift table without duplicates when jobs are rerun?

A. Modify the AWS Glue job to copy the rows into a staging tabl
B. Add SQL commands to replace the existing rows in the main table as postactions in the DynamicFrameWriter class.
C. Load the previously inserted data into a MySQL database in the AWS Glue jo
D. Perform an upsert operation in MySQL, and copy the results to the Amazon Redshift table.
E. Use Apache Spark's DataFrame dropDuplicates() API to eliminate duplicates and then write the data to Amazon Redshift.
F. Use the AWS Glue ResolveChoice built-in transform to select the most recent value of the column.

Answer: A

Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/sql-commands-redshift-glue-job/ See the section Merge an Amazon Redshift table in AWS Glue (upsert)

NEW QUESTION 13
A company is migrating from an on-premises Apache Hadoop cluster to an Amazon EMR cluster. The cluster runs only during business hours. Due to a company requirement to avoid intraday cluster failures, the EMR cluster must be highly available. When the cluster is terminated at the end of each business day, the data must persist.
Which configurations would enable the EMR cluster to meet these requirements? (Choose three.)

A. EMR File System (EMRFS) for storage
B. Hadoop Distributed File System (HDFS) for storage
C. AWS Glue Data Catalog as the metastore for Apache Hive
D. MySQL database on the master node as the metastore for Apache Hive
E. Multiple master nodes in a single Availability Zone
F. Multiple master nodes in multiple Availability Zones

Answer: ACE

Explanation:
https://docs.aws.amazon.com/emr/latest/ManagementGuide/emr-plan-ha.html "Note : The cluster can reside only in one Availability Zone or subnet."

NEW QUESTION 16
A company receives data from its vendor in JSON format with a timestamp in the file name. The vendor uploads the data to an Amazon S3 bucket, and the data is registered into the company's data lake for analysis and reporting. The company has configured an S3 Lifecycle policy to archive all files to S3 Glacier after 5 days.
The company wants to ensure that its AWS Glue crawler catalogs data only from S3 Standard storage and ignores the archived files. A data analytics specialist must implement a solution to achieve this goal without changing the current S3 bucket configuration.
Which solution meets these requirements?

A. Use the exclude patterns feature of AWS Glue to identify the S3 Glacier files for the crawler to exclude.
B. Schedule an automation job that uses AWS Lambda to move files from the original S3 bucket to a new S3 bucket for S3 Glacier storage.
C. Use the excludeStorageClasses property in the AWS Glue Data Catalog table to exclude files on S3 Glacier storage
D. Use the include patterns feature of AWS Glue to identify the S3 Standard files for the crawler to include.

Answer: A

NEW QUESTION 17
A company wants to enrich application logs in near-real-time and use the enriched dataset for further analysis. The application is running on Amazon EC2 instances across multiple Availability Zones and storing its logs using Amazon CloudWatch Logs. The enrichment source is stored in an Amazon DynamoDB table.
Which solution meets the requirements for the event collection and enrichment?

A. Use a CloudWatch Logs subscription to send the data to Amazon Kinesis Data Firehos
B. Use AWS Lambda to transform the data in the Kinesis Data Firehose delivery stream and enrich it with the data inthe DynamoDB tabl
C. Configure Amazon S3 as the Kinesis Data Firehose delivery destination.
D. Export the raw logs to Amazon S3 on an hourly basis using the AWS CL
E. Use AWS Glue crawlers to catalog the log
F. Set up an AWS Glue connection for the DynamoDB table and set up an AWS Glue ETL job to enrich the dat
G. Store the enriched data in Amazon S3.
H. Configure the application to write the logs locally and use Amazon Kinesis Agent to send the data to Amazon Kinesis Data Stream

I. Configure a Kinesis Data Analytics SQL application with the Kinesis data stream as the sourc
J. Join the SQL application input stream with DynamoDB records, and then store the enriched output stream in Amazon S3 using Amazon Kinesis Data Firehose.
K. Export the raw logs to Amazon S3 on an hourly basis using the AWS CL
L. Use Apache Spark SQL on Amazon EMR to read the logs from Amazon S3 and enrich the records with the data from DynamoD
M. Store the enriched data in Amazon S3.

Answer: A

Explanation:
https://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/SubscriptionFilters.html#FirehoseExample

NEW QUESTION 18
An Amazon Redshift database contains sensitive user data. Logging is necessary to meet compliance requirements. The logs must contain database authentication attempts, connections, and disconnections. The logs must also contain each query run against the database and record which database user ran each query.
Which steps will create the required logs?

A. Enable Amazon Redshift Enhanced VPC Routin
B. Enable VPC Flow Logs to monitor traffic.
C. Allow access to the Amazon Redshift database using AWS IAM onl
D. Log access using AWS CloudTrail.
E. Enable audit logging for Amazon Redshift using the AWS Management Console or the AWS CLI.
F. Enable and download audit reports from AWS Artifact.

Answer: C

NEW QUESTION 20
A mobile gaming company wants to capture data from its gaming app and make the data available for analysis immediately. The data record size will be approximately 20 KB. The company is concerned about achieving optimal throughput from each device. Additionally, the company wants to develop a data stream processing application with dedicated throughput for each consumer.
Which solution would achieve this goal?

A. Have the app call the PutRecords API to send data to Amazon Kinesis Data Stream
B. Use the enhanced fan-out feature while consuming the data.
C. Have the app call the PutRecordBatch API to send data to Amazon Kinesis Data Firehos
D. Submit a support case to enable dedicated throughput on the account.
E. Have the app use Amazon Kinesis Producer Library (KPL) to send data to Kinesis Data Firehos
F. Use the enhanced fan-out feature while consuming the data.
G. Have the app call the PutRecords API to send data to Amazon Kinesis Data Stream
H. Host the stream- processing application on Amazon EC2 with Auto Scaling.

Answer: A

Explanation:
https://docs.aws.amazon.com/streams/latest/dev/enhanced-consumers.html

NEW QUESTION 23
A company wants to improve the data load time of a sales data dashboard. Data has been collected as .csv files and stored within an Amazon S3 bucket that is partitioned by date. The data is then loaded to an Amazon Redshift data warehouse for frequent analysis. The data volume is up to 500 GB per day.
Which solution will improve the data loading performance?

A. Compress .csv files and use an INSERT statement to ingest data into Amazon Redshift.
B. Split large .csv files, then use a COPY command to load data into Amazon Redshift.
C. Use Amazon Kinesis Data Firehose to ingest data into Amazon Redshift.
D. Load the .csv files in an unsorted key order and vacuum the table in Amazon Redshift.

Answer: B

Explanation:
https://docs.aws.amazon.com/redshift/latest/dg/c_loading-data-best-practices.html

NEW QUESTION 26
A company is migrating its existing on-premises ETL jobs to Amazon EMR. The code consists of a series of jobs written in Java. The company needs to reduce overhead for the system administrators without changing the underlying code. Due to the sensitivity of the data, compliance requires that the company use root device volume encryption on all nodes in the cluster. Corporate standards require that environments be provisioned though AWS CloudFormation when possible.
Which solution satisfies these requirements?

A. Install open-source Hadoop on Amazon EC2 instances with encrypted root device volume
B. Configure the cluster in the CloudFormation template.
C. Use a CloudFormation template to launch an EMR cluste
D. In the configuration section of the cluster, define a bootstrap action to enable TLS.
E. Create a custom AMI with encrypted root device volume
F. Configure Amazon EMR to use the custom AMI using the CustomAmiId property in the CloudFormation template.
G. Use a CloudFormation template to launch an EMR cluste
H. In the configuration section of the cluster, define a bootstrap action to encrypt the root device volume of every node.

Answer: C

NEW QUESTION 29
A media content company has a streaming playback application. The company wants to collect and analyze the data to provide near-real-time feedback on playback issues. The company needs to consume this data and return results within 30 seconds according to the service-level agreement (SLA). The company needs the consumer to identify playback issues, such as quality during a specified timeframe. The data will be emitted as JSON and may change schemas over time.
Which solution will allow the company to collect data for processing while meeting these requirements?

A. Send the data to Amazon Kinesis Data Firehose with delivery to Amazon S3. Configure an S3 event trigger an AWS Lambda function to process the dat
B. The Lambda function will consume the data and process it to identify potential playback issue
C. Persist the raw data to Amazon S3.
D. Send the data to Amazon Managed Streaming for Kafka and configure an Amazon Kinesis Analytics for Java application as the consume
E. The application will consume the data and process it to identify potential playback issue
F. Persist the raw data to Amazon DynamoDB.
G. Send the data to Amazon Kinesis Data Firehose with delivery to Amazon S3. Configure Amazon S3 to trigger an event for AWS Lambda to proces
H. The Lambda function will consume the data and process it to identify potential playback issue
I. Persist the raw data to Amazon DynamoDB.
J. Send the data to Amazon Kinesis Data Streams and configure an Amazon Kinesis Analytics for Java application as the consume
K. The application will consume the data and process it to identify potential playback issue
L. Persist the raw data to Amazon S3.

Answer: D

Explanation:
https://aws.amazon.com/blogs/aws/new-amazon-kinesis-data-analytics-for-java/

NEW QUESTION 30
A company launched a service that produces millions of messages every day and uses Amazon Kinesis Data Streams as the streaming service.
The company uses the Kinesis SDK to write data to Kinesis Data Streams. A few months after launch, a data analyst found that write performance is significantly reduced. The data analyst investigated the metrics and determined that Kinesis is throttling the write requests. The data analyst wants to address this issue without significant changes to the architecture.
Which actions should the data analyst take to resolve this issue? (Choose two.)

A. Increase the Kinesis Data Streams retention period to reduce throttling.
B. Replace the Kinesis API-based data ingestion mechanism with Kinesis Agent.
C. Increase the number of shards in the stream using the UpdateShardCount API.
D. Choose partition keys in a way that results in a uniform record distribution across shards.
E. Customize the application code to include retry logic to improve performance.

Answer: CD

Explanation:
https://aws.amazon.com/blogs/big-data/under-the-hood-scaling-your-kinesis-data-streams/

NEW QUESTION 32
A data analyst runs a large number of data manipulation language (DML) queries by using Amazon Athena with the JDBC driver. Recently, a query failed after It ran for 30 minutes. The query returned the following message Java.sql.SGLException: Query timeout
The data analyst does not immediately need the query results However, the data analyst needs a long-term solution for this problem
Which solution will meet these requirements?

A. Split the query into smaller queries to search smaller subsets of data.
B. In the settings for Athena, adjust the DML query timeout limit
C. In the Service Quotas console, request an increase for the DML query timeout
D. Save the tables as compressed .csv files

Answer: A

NEW QUESTION 34
A data engineer is using AWS Glue ETL jobs to process data at frequent intervals The processed data is then copied into Amazon S3 The ETL jobs run every 15 minutes. The AWS Glue Data Catalog partitions need to be updated automatically after the completion of each job
Which solution will meet these requirements MOST cost-effectively?

A. Use the AWS Glue Data Catalog to manage the data catalog Define an AWS Glue workflow for the ETL process Define a trigger within the workflow that can start the crawler when an ETL job run is complete
B. Use the AWS Glue Data Catalog to manage the data catalog Use AWS Glue Studio to manage ETL job
C. Use the AWS Glue Studio feature that supports updates to the AWS Glue Data Catalog during job runs.
D. Use an Apache Hive metastore to manage the data catalog Update the AWS Glue ETL code to include the enableUpdateCatalog and partitionKeys arguments.
E. Use the AWS Glue Data Catalog to manage the data catalog Update the AWS Glue ETL code to include the enableUpdateCatalog and partitionKeys arguments.

Answer: A

NEW QUESTION 38
A US-based sneaker retail company launched its global website. All the transaction data is stored in Amazon RDS and curated historic transaction data is stored in Amazon Redshift in the us-east-1 Region. The business intelligence (BI) team wants to enhance the user experience by providing a dashboard for sneaker trends.
The BI team decides to use Amazon QuickSight to render the website dashboards. During development, a team in Japan provisioned Amazon QuickSight in ap-northeast-1. The team is having difficulty connecting Amazon QuickSight from ap-northeast-1 to Amazon Redshift in us-east-1.
Which solution will solve this issue and meet the requirements?

A. In the Amazon Redshift console, choose to configure cross-Region snapshots and set the destination Region as ap-northeast-1. Restore the Amazon Redshift

Cluster from the snapshot and connect to Amazon QuickSight launched in ap-northeast-1.
B. Create a VPC endpoint from the Amazon QuickSight VPC to the Amazon Redshift VPC so Amazon QuickSight can access data from Amazon Redshift.
C. Create an Amazon Redshift endpoint connection string with Region information in the string and use this connection string in Amazon QuickSight to connect to Amazon Redshift.
D. Create a new security group for Amazon Redshift in us-east-1 with an inbound rule authorizing access from the appropriate IP address range for the Amazon QuickSight servers in ap-northeast-1.

Answer: B

NEW QUESTION 40
A company hosts an on-premises PostgreSQL database that contains historical data. An internal legacy application uses the database for read-only activities. The company's business team wants to move the data to a data lake in Amazon S3 as soon as possible and enrich the data for analytics.
The company has set up an AWS Direct Connect connection between its VPC and its on-premises network. A data analytics specialist must design a solution that achieves the business team's goals with the least operational overhead.
Which solution meets these requirements?

A. Upload the data from the on-premises PostgreSQL database to Amazon S3 by using a customized batch upload proces
B. Use the AWS Glue crawler to catalog the data in Amazon S3. Use an AWS Glue job to enrich and store the result in a separate S3 bucket in Apache Parquet forma
C. Use Amazon Athena to query the data.
D. Create an Amazon RDS for PostgreSQL database and use AWS Database Migration Service (AWS DMS) to migrate the data into Amazon RD
E. Use AWS Data Pipeline to copy and enrich the data from the Amazon RDS for PostgreSQL table and move the data to Amazon S3. Use Amazon Athena to query the data.
F. Configure an AWS Glue crawler to use a JDBC connection to catalog the data in the on-premises databas
G. Use an AWS Glue job to enrich the data and save the result to Amazon S3 in Apache Parquet forma
H. Create an Amazon Redshift cluster and use Amazon Redshift Spectrum to query the data.
I. Configure an AWS Glue crawler to use a JDBC connection to catalog the data in the on-premises databas
J. Use an AWS Glue job to enrich the data and save the result to Amazon S3 in Apache Parquet forma
K. Use Amazon Athena to query the data.

Answer: B

NEW QUESTION 43
A company uses Amazon Redshift as its data warehouse. A new table has columns that contain sensitive data. The data in the table will eventually be referenced by several existing queries that run many times a day.
A data analyst needs to load 100 billion rows of data into the new table. Before doing so, the data analyst must ensure that only members of the auditing group can read the columns containing sensitive data.
How can the data analyst meet these requirements with the lowest maintenance overhead?

A. Load all the data into the new table and grant the auditing group permission to read from the tabl
B. Load all the data except for the columns containing sensitive data into a second tabl
C. Grant the appropriate users read-only permissions to the second table.
D. Load all the data into the new table and grant the auditing group permission to read from the tabl
E. Use the GRANT SQL command to allow read-only access to a subset of columns to the appropriate users.
F. Load all the data into the new table and grant all users read-only permissions to non-sensitive columns.Attach an IAM policy to the auditing group with explicit ALLOW access to the sensitive data columns.
G. Load all the data into the new table and grant the auditing group permission to read from the table.Create a view of the new table that contains all the columns, except for those considered sensitive, and grant the appropriate users read-only permissions to the table.

Answer: B

Explanation:
https://aws.amazon.com/blogs/big-data/achieve-finer-grained-data-security-with-column-level-access-control-in

NEW QUESTION 45
A company is streaming its high-volume billing data (100 MBps) to Amazon Kinesis Data Streams. A data analyst partitioned the data on account_id to ensure that all records belonging to an account go to the same Kinesis shard and order is maintained. While building a custom consumer using the Kinesis Java SDK, the data analyst notices that, sometimes, the messages arrive out of order for account_id. Upon further investigation, the data analyst discovers the messages that are out of order seem to be arriving from different shards for the same account_id and are seen when a stream resize runs.
What is an explanation for this behavior and what is the solution?

A. There are multiple shards in a stream and order needs to be maintained in the shar
B. The data analyst needs to make sure there is only a single shard in the stream and no stream resize runs.
C. The hash key generation process for the records is not working correctl
D. The data analyst should generate an explicit hash key on the producer side so the records are directed to the appropriate shard accurately.
E. The records are not being received by Kinesis Data Streams in orde
F. The producer should use the PutRecords API call instead of the PutRecord API call with the SequenceNumberForOrdering parameter.
G. The consumer is not processing the parent shard completely before processing the child shards after a stream resiz
H. The data analyst should process the parent shard completely first before processing the child shards.

Answer: D

Explanation:
https://docs.aws.amazon.com/streams/latest/dev/kinesis-using-sdk-java-after-resharding.html the parent shards that remain after the reshard could still contain data that you haven't read yet that was added to the stream before the reshard. If you read data from the child shards before having read all data from the parent shards, you could read data for a particular hash key out of the order given by the data records' sequence numbers.
Therefore, assuming that the order of the data is important, you should, after a reshard, always continue to read data from the parent shards until it is exhausted. Only then should you begin reading data from the child shards.

NEW QUESTION 48
A global pharmaceutical company receives test results for new drugs from various testing facilities worldwide. The results are sent in millions of 1 KB-sized JSON objects to an Amazon S3 bucket owned by the company. The data engineering team needs to process those files, convert them into Apache Parquet format, and load them into Amazon Redshift for data analysts to perform dashboard reporting. The engineering team uses AWS Glue to process the objects, AWS Step Functions for process orchestration, and Amazon CloudWatch for job scheduling.
More testing facilities were recently added, and the time to process files is increasing. What will MOST efficiently decrease the data processing time?

A. Use AWS Lambda to group the small files into larger file
B. Write the files back to Amazon S3. Process the files using AWS Glue and load them into Amazon Redshift tables.
C. Use the AWS Glue dynamic frame file grouping option while ingesting the raw input file
D. Process the files and load them into Amazon Redshift tables.
E. Use the Amazon Redshift COPY command to move the files from Amazon S3 into Amazon Redshift tables directl
F. Process the files in Amazon Redshift.
G. Use Amazon EMR instead of AWS Glue to group the small input file
H. Process the files in Amazon EMR and load them into Amazon Redshift tables.

Answer: A

NEW QUESTION 49
A company is planning to do a proof of concept for a machine learning (ML) project using Amazon SageMaker with a subset of existing on-premises data hosted in the company's 3 TB data warehouse. For part of the project, AWS Direct Connect is established and tested. To prepare the data for ML, data analysts are performing data curation. The data analysts want to perform multiple step, including mapping, dropping null fields, resolving choice, and splitting fields. The company needs the fastest solution to curate the data for this project.
Which solution meets these requirements?

A. Ingest data into Amazon S3 using AWS DataSync and use Apache Spark scrips to curate the data in an Amazon EMR cluste
B. Store the curated data in Amazon S3 for ML processing.
C. Create custom ETL jobs on-premises to curate the dat
D. Use AWS DMS to ingest data into Amazon S3 for ML processing.
E. Ingest data into Amazon S3 using AWS DM
F. Use AWS Glue to perform data curation and store the data in Amazon S3 for ML processing.
G. Take a full backup of the data store and ship the backup files using AWS Snowbal
H. Upload Snowball data into Amazon S3 and schedule data curation jobs using AWS Batch to prepare the data for ML.

Answer: C

NEW QUESTION 54
A data analyst is using AWS Glue to organize, cleanse, validate, and format a 200 GB dataset. The data analyst triggered the job to run with the Standard worker type. After 3 hours, the AWS Glue job status is still RUNNING. Logs from the job run show no error codes. The data analyst wants to improve the job execution time without overprovisioning.
Which actions should the data analyst take?

A. Enable job bookmarks in AWS Glue to estimate the number of data processing units (DPUs). Based on the profiled metrics, increase the value of the executor-cores job parameter.
B. Enable job metrics in AWS Glue to estimate the number of data processing units (DPUs). Based on the profiled metrics, increase the value of the maximum capacity job parameter.
C. Enable job metrics in AWS Glue to estimate the number of data processing units (DPUs). Based on the profiled metrics, increase the value of the spark.yarn.executor.memoryOverhead job parameter.
D. Enable job bookmarks in AWS Glue to estimate the number of data processing units (DPUs). Based on the profiled metrics, increase the value of the num-executors job parameter.

Answer: B

NEW QUESTION 55
A banking company is currently using an Amazon Redshift cluster with dense storage (DS) nodes to store sensitive data. An audit found that the cluster is unencrypted. Compliance requirements state that a database with sensitive data must be encrypted through a hardware security module (HSM) with automated key rotation.
Which combination of steps is required to achieve compliance? (Choose two.)

A. Set up a trusted connection with HSM using a client and server certificate with automatic key rotation.
B. Modify the cluster with an HSM encryption option and automatic key rotation.
C. Create a new HSM-encrypted Amazon Redshift cluster and migrate the data to the new cluster.
D. Enable HSM with key rotation through the AWS CLI.
E. Enable Elliptic Curve Diffie-Hellman Ephemeral (ECDHE) encryption in the HSM.

Answer: BD

NEW QUESTION 56
A company uses Amazon Redshift as its data warehouse A new table includes some columns that contain sensitive data and some columns that contain non-sensitive data The data in the table eventually will be referenced by several existing queries that run many times each day
A data analytics specialist must ensure that only members of the company's auditing team can read the columns that contain sensitive data All other users must have read-only access to the columns that contain non-sensitive data
Which solution will meet these requirements with the LEAST operational overhead?

A. Grant the auditing team permission to read from the tabl
B. Load the columns that contain non-sensitive data into a second tabl
C. Grant the appropriate users read-only permissions to the second table.
D. Grant all users read-only permissions to the columns that contain non-sensitive data Use the GRANT SELECT command to allow the auditing team to access the columns that contain sensitive data

E. Grant all users read-only permissions to the columns that contain non-sensitive data Attach an 1AM policy to the auditing team with an explicit Allow action that grants access to the columns that contain sensitive data
F. Grant the auditing team permission to read from the table Create a view of the table that includes the columns that contain non-sensitive data Grant the appropriate users read-only permissions to that view

Answer: B

Explanation:
https://aws.amazon.com/jp/about-aws/whats-new/2020/03/announcing-column-level-access-control-for-amazon

NEW QUESTION 60
A marketing company is using Amazon EMR clusters for its workloads. The company manually installs third- party libraries on the clusters by logging in to the master nodes. A data analyst needs to create an automated solution to replace the manual process.
Which options can fulfill these requirements? (Choose two.)

A. Place the required installation scripts in Amazon S3 and execute them using custom bootstrap actions.
B. Place the required installation scripts in Amazon S3 and execute them through Apache Spark in Amazon EMR.
C. Install the required third-party libraries in the existing EMR master nod
D. Create an AMI out of that master node and use that custom AMI to re-create the EMR cluster.
E. Use an Amazon DynamoDB table to store the list of required application
F. Trigger an AWS Lambda function with DynamoDB Streams to install the software.
G. Launch an Amazon EC2 instance with Amazon Linux and install the required third-party libraries on the instanc
H. Create an AMI and use that AMI to create the EMR cluster.

Answer: AE

Explanation:
https://aws.amazon.com/about-aws/whats-new/2017/07/amazon-emr-now-supports-launching-clusters-with-cust
https://docs.aws.amazon.com/de_de/emr/latest/ManagementGuide/emr-plan-bootstrap.html

NEW QUESTION 63
An ecommerce company stores customer purchase data in Amazon RDS. The company wants a solution to store and analyze historical data. The most recent 6 months of data will be queried frequently for analytics workloads. This data is several terabytes large. Once a month, historical data for the last 5 years must be accessible and will be joined with the more recent data. The company wants to optimize performance and cost.
Which storage solution will meet these requirements?

A. Create a read replica of the RDS database to store the most recent 6 months of dat
B. Copy the historical data into Amazon S3. Create an AWS Glue Data Catalog of the data in Amazon S3 and Amazon RD
C. Run historical queries using Amazon Athena.
D. Use an ETL tool to incrementally load the most recent 6 months of data into an Amazon Redshift cluste
E. Run more frequent queries against this cluste
F. Create a read replica of the RDS database to run queries on the historical data.
G. Incrementally copy data from Amazon RDS to Amazon S3. Create an AWS Glue Data Catalog of the data in Amazon S3. Use Amazon Athena to query the data.
H. Incrementally copy data from Amazon RDS to Amazon S3. Load and store the most recent 6 months of data in Amazon Redshif
I. Configure an Amazon Redshift Spectrum table to connect to all historical data.

Answer: D

NEW QUESTION 66
A company is planning to create a data lake in Amazon S3. The company wants to create tiered storage based on access patterns and cost objectives. The solution must include support for JDBC connections from legacy clients, metadata management that allows federation for access control, and batch-based ETL using PySpark and Scala. Operational management should be limited.
Which combination of components can meet these requirements? (Choose three.)

A. AWS Glue Data Catalog for metadata management
B. Amazon EMR with Apache Spark for ETL
C. AWS Glue for Scala-based ETL
D. Amazon EMR with Apache Hive for JDBC clients
E. Amazon Athena for querying data in Amazon S3 using JDBC drivers
F. Amazon EMR with Apache Hive, using an Amazon RDS with MySQL-compatible backed metastore

Answer: BEF

NEW QUESTION 67
A financial services company needs to aggregate daily stock trade data from the exchanges into a data store. The company requires that data be streamed directly into the data store, but also occasionally allows data to be modified using SQL. The solution should integrate complex, analytic queries running with minimal latency. The solution must provide a business intelligence dashboard that enables viewing of the top contributors to anomalies in stock prices.
Which solution meets the company's requirements?

A. Use Amazon Kinesis Data Firehose to stream data to Amazon S3. Use Amazon Athena as a data source for Amazon QuickSight to create a business intelligence dashboard.
B. Use Amazon Kinesis Data Streams to stream data to Amazon Redshif
C. Use Amazon Redshift as a data source for Amazon QuickSight to create a business intelligence dashboard.
D. Use Amazon Kinesis Data Firehose to stream data to Amazon Redshif
E. Use Amazon Redshift as a data source for Amazon QuickSight to create a business intelligence dashboard.
F. Use Amazon Kinesis Data Streams to stream data to Amazon S3. Use Amazon Athena as a data source for Amazon QuickSight to create a business intelligence dashboard.

Answer: C

NEW QUESTION 71
An advertising company has a data lake that is built on Amazon S3. The company uses AWS Glue Data Catalog to maintain the metadata. The data lake is several years old and its overall size has increased exponentially as additional data sources and metadata are stored in the data lake. The data lake administrator wants to implement a mechanism to simplify permissions management between Amazon S3 and the Data Catalog to keep them in sync
Which solution will simplify permissions management with minimal development effort?

A. Set AWS Identity and Access Management (1AM) permissions tor AWS Glue
B. Use AWS Lake Formation permissions
C. Manage AWS Glue and S3 permissions by using bucket policies
D. Use Amazon Cognito user pools.

Answer: B

NEW QUESTION 73
A company is building a service to monitor fleets of vehicles. The company collects IoT data from a device in each vehicle and loads the data into Amazon Redshift in near-real time. Fleet owners upload .csv files containing vehicle reference data into Amazon S3 at different times throughout the day. A nightly process loads the vehicle reference data from Amazon S3 into Amazon Redshift. The company joins the IoT data from the device and the vehicle reference data to power reporting and dashboards. Fleet owners are frustrated by waiting a day for the dashboards to update.
Which solution would provide the SHORTEST delay between uploading reference data to Amazon S3 and the change showing up in the owners' dashboards?

A. Use S3 event notifications to trigger an AWS Lambda function to copy the vehicle reference data into Amazon Redshift immediately when the reference data is uploaded to Amazon S3.
B. Create and schedule an AWS Glue Spark job to run every 5 minute
C. The job inserts reference data into Amazon Redshift.
D. Send reference data to Amazon Kinesis Data Stream
E. Configure the Kinesis data stream to directly load the reference data into Amazon Redshift in real time.
F. Send the reference data to an Amazon Kinesis Data Firehose delivery strea
G. Configure Kinesis with a buffer interval of 60 seconds and to directly load the data into Amazon Redshift.

Answer: A

NEW QUESTION 74
A transport company wants to track vehicular movements by capturing geolocation records. The records are 10 B in size and up to 10,000 records are captured each second. Data transmission delays of a few minutes are acceptable, considering unreliable network conditions. The transport company decided to use Amazon Kinesis Data Streams to ingest the data. The company is looking for a reliable mechanism to send data to Kinesis Data Streams while maximizing the throughput efficiency of the Kinesis shards.
Which solution will meet the company's requirements?

A. Kinesis Agent
B. Kinesis Producer Library (KPL)
C. Kinesis Data Firehose
D. Kinesis SDK

Answer: B

NEW QUESTION 78
A large telecommunications company is planning to set up a data catalog and metadata management for multiple data sources running on AWS. The catalog will be used to maintain the metadata of all the objects stored in the data stores. The data stores are composed of structured sources like Amazon RDS and Amazon Redshift, and semistructured sources like JSON and XML files stored in Amazon S3. The catalog must be updated on a regular basis, be able to detect the changes to object metadata, and require the least possible administration.
Which solution meets these requirements?

A. Use Amazon Aurora as the data catalo
B. Create AWS Lambda functions that will connect and gather the metadata information from multiple sources and update the data catalog in Auror
C. Schedule the Lambda functions periodically.
D. Use the AWS Glue Data Catalog as the central metadata repositor
E. Use AWS Glue crawlers to connect to multiple data stores and update the Data Catalog with metadata change
F. Schedule the crawlers periodically to update the metadata catalog.
G. Use Amazon DynamoDB as the data catalo
H. Create AWS Lambda functions that will connect and gather the metadata information from multiple sources and update the DynamoDB catalo
I. Schedule the Lambda functions periodically.
J. Use the AWS Glue Data Catalog as the central metadata repositor
K. Extract the schema for RDS and Amazon Redshift sources and build the Data Catalo
L. Use AWS crawlers for data stored in Amazon S3 to infer the schema and automatically update the Data Catalog.

Answer: D

NEW QUESTION 83
A company's data analyst needs to ensure that queries executed in Amazon Athena cannot scan more than a prescribed amount of data for cost control purposes. Queries that exceed the prescribed threshold must be canceled immediately.
What should the data analyst do to achieve this?

A. Configure Athena to invoke an AWS Lambda function that terminates queries when the prescribed threshold is crossed.
B. For each workgroup, set the control limit for each query to the prescribed threshold.
C. Enforce the prescribed threshold on all Amazon S3 bucket policies
D. For each workgroup, set the workgroup-wide data usage control limit to the prescribed threshold.

Answer: B

Explanation:
https://docs.aws.amazon.com/athena/latest/ug/manage-queries-control-costs-with-workgroups.html

NEW QUESTION 84
A company needs to store objects containing log data in JSON format. The objects are generated by eight applications running in AWS. Six of the applications generate a total of 500 KiB of data per second, and two of the applications can generate up to 2 MiB of data per second.
A data engineer wants to implement a scalable solution to capture and store usage data in an Amazon S3
bucket. The usage data objects need to be reformatted, converted to .csv format, and then compressed before they are stored in Amazon S3. The company requires the solution to include the least custom code possible and has authorized the data engineer to request a service quota increase if needed.
Which solution meets these requirements?

A. Configure an Amazon Kinesis Data Firehose delivery stream for each applicatio
B. Write AWS Lambda functions to read log data objects from the stream for each applicatio
C. Have the function perform reformatting and .csv conversio
D. Enable compression on all the delivery streams.
E. Configure an Amazon Kinesis data stream with one shard per applicatio
F. Write an AWS Lambda function to read usage data objects from the shard
G. Have the function perform .csv conversion, reformatting, and compression of the dat
H. Have the function store the output in Amazon S3.
I. Configure an Amazon Kinesis data stream for each applicatio
J. Write an AWS Lambda function to read usage data objects from the stream for each applicatio
K. Have the function perform .csv conversion, reformatting, and compression of the dat
L. Have the function store the output in Amazon S3.
M. Store usage data objects in an Amazon DynamoDB tabl
N. Configure a DynamoDB stream to copy the objects to an S3 bucke
O. Configure an AWS Lambda function to be triggered when objects are written to the S3 bucke
P. Have the function convert the objects into .csv format.

Answer: A

NEW QUESTION 86
A company analyzes its data in an Amazon Redshift data warehouse, which currently has a cluster of three dense storage nodes. Due to a recent business acquisition, the company needs to load an additional 4 TB of user data into Amazon Redshift. The engineering team will combine all the user data and apply complex calculations that require I/O intensive resources. The company needs to adjust the cluster's capacity to support the change in analytical and storage requirements.
Which solution meets these requirements?

A. Resize the cluster using elastic resize with dense compute nodes.
B. Resize the cluster using classic resize with dense compute nodes.
C. Resize the cluster using elastic resize with dense storage nodes.
D. Resize the cluster using classic resize with dense storage nodes.

Answer: C

NEW QUESTION 91
A retail company leverages Amazon Athena for ad-hoc queries against an AWS Glue Data Catalog. The data analytics team manages the data catalog and data access for the company. The data analytics team wants to separate queries and manage the cost of running those queries by different workloads and teams. Ideally, the data analysts want to group the queries run by different users within a team, store the query results in individual Amazon S3 buckets specific to each team, and enforce cost constraints on the queries run against the Data Catalog.
Which solution meets these requirements?

A. Create IAM groups and resource tags for each team within the compan
B. Set up IAM policies that controluser access and actions on the Data Catalog resources.
C. Create Athena resource groups for each team within the company and assign users to these group
D. Add S3 bucket names and other query configurations to the properties list for the resource groups.
E. Create Athena workgroups for each team within the compan
F. Set up IAM workgroup policies that control user access and actions on the workgroup resources.
G. Create Athena query groups for each team within the company and assign users to the groups.

Answer: C

Explanation:
https://aws.amazon.com/about-aws/whats-new/2019/02/athena_workgroups/

NEW QUESTION 93
An online gaming company is using an Amazon Kinesis Data Analytics SQL application with a Kinesis data stream as its source. The source sends three non-null fields to the application: player_id, score, and us_5_digit_zip_code.
A data analyst has a .csv mapping file that maps a small number of us_5_digit_zip_code values to a territory code. The data analyst needs to include the territory code, if one exists, as an additional output of the Kinesis Data Analytics application.
How should the data analyst meet this requirement while minimizing costs?

A. Store the contents of the mapping file in an Amazon DynamoDB tabl
B. Preprocess the records as they arrive in the Kinesis Data Analytics application with an AWS Lambda function that fetches the mapping and supplements each record to include the territory code, if one exist
C. Change the SQL query in the application to include the new field in the SELECT statement.
D. Store the mapping file in an Amazon S3 bucket and configure the reference data column headers for the.csv file in the Kinesis Data Analytics applicatio
E. Change the SQL query in the application to include a join to the file's S3 Amazon Resource Name (ARN), and add the territory code field to the SELECT

columns.
F. Store the mapping file in an Amazon S3 bucket and configure it as a reference data source for the Kinesis Data Analytics applicatio
G. Change the SQL query in the application to include a join to the reference table and add the territory code field to the SELECT columns.
H. Store the contents of the mapping file in an Amazon DynamoDB tabl
I. Change the Kinesis Data Analytics application to send its output to an AWS Lambda function that fetches the mapping and supplements each record to include the territory code, if one exist
J. Forward the record from the Lambda function to the original application destination.

Answer: C

NEW QUESTION 98
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