

Google

Exam Questions Professional-Data-Engineer

Google Professional Data Engineer Exam



NEW QUESTION 1

- (Exam Topic 1)

You want to use a database of information about tissue samples to classify future tissue samples as either normal or mutated. You are evaluating an unsupervised anomaly detection method for classifying the tissue samples. Which two characteristics support this method? (Choose two.)

- A. There are very few occurrences of mutations relative to normal samples.
- B. There are roughly equal occurrences of both normal and mutated samples in the database.
- C. You expect future mutations to have different features from the mutated samples in the database.
- D. You expect future mutations to have similar features to the mutated samples in the database.
- E. You already have labels for which samples are mutated and which are normal in the database.

Answer: AD

Explanation:

Unsupervised anomaly detection techniques detect anomalies in an unlabeled test data set under the assumption that the majority of the instances in the data set are normal by looking for instances that seem to fit least to the remainder of the data set. https://en.wikipedia.org/wiki/Anomaly_detection

NEW QUESTION 2

- (Exam Topic 1)

You are building a new real-time data warehouse for your company and will use Google BigQuery streaming inserts. There is no guarantee that data will only be sent in once but you do have a unique ID for each row of data and an event timestamp. You want to ensure that duplicates are not included while interactively querying data. Which query type should you use?

- A. Include ORDER BY DESK on timestamp column and LIMIT to 1.
- B. Use GROUP BY on the unique ID column and timestamp column and SUM on the values.
- C. Use the LAG window function with PARTITION by unique ID along with WHERE LAG IS NOT NULL.
- D. Use the ROW_NUMBER window function with PARTITION by unique ID along with WHERE row equals 1.

Answer: D

Explanation:

<https://cloud.google.com/bigquery/docs/reference/standard-sql/analytic-function-concepts>

NEW QUESTION 3

- (Exam Topic 1)

Your company has hired a new data scientist who wants to perform complicated analyses across very large datasets stored in Google Cloud Storage and in a Cassandra cluster on Google Compute Engine. The scientist primarily wants to create labelled data sets for machine learning projects, along with some visualization tasks. She reports that her laptop is not powerful enough to perform her tasks and it is slowing her down. You want to help her perform her tasks. What should you do?

- A. Run a local version of Jupiter on the laptop.
- B. Grant the user access to Google Cloud Shell.
- C. Host a visualization tool on a VM on Google Compute Engine.
- D. Deploy Google Cloud Datalab to a virtual machine (VM) on Google Compute Engine.

Answer: B

NEW QUESTION 4

- (Exam Topic 1)

You are working on a sensitive project involving private user data. You have set up a project on Google Cloud Platform to house your work internally. An external consultant is going to assist with coding a complex transformation in a Google Cloud Dataflow pipeline for your project. How should you maintain users' privacy?

- A. Grant the consultant the Viewer role on the project.
- B. Grant the consultant the Cloud Dataflow Developer role on the project.
- C. Create a service account and allow the consultant to log on with it.
- D. Create an anonymized sample of the data for the consultant to work with in a different project.

Answer: C

NEW QUESTION 5

- (Exam Topic 1)

Your company is migrating their 30-node Apache Hadoop cluster to the cloud. They want to re-use Hadoop jobs they have already created and minimize the management of the cluster as much as possible. They also want to be able to persist data beyond the life of the cluster. What should you do?

- A. Create a Google Cloud Dataflow job to process the data.
- B. Create a Google Cloud Dataproc cluster that uses persistent disks for HDFS.
- C. Create a Hadoop cluster on Google Compute Engine that uses persistent disks.
- D. Create a Cloud Dataproc cluster that uses the Google Cloud Storage connector.
- E. Create a Hadoop cluster on Google Compute Engine that uses Local SSD disks.

Answer: D

NEW QUESTION 6

- (Exam Topic 1)

Your company is running their first dynamic campaign, serving different offers by analyzing real-time data during the holiday season. The data scientists are collecting terabytes of data that rapidly grows every hour during their 30-day campaign. They are using Google Cloud Dataflow to preprocess the data and collect

the feature (signals) data that is needed for the machine learning model in Google Cloud Bigtable. The team is observing suboptimal performance with reads and writes of their initial load of 10 TB of data. They want to improve this performance while minimizing cost. What should they do?

- A. Redefine the schema by evenly distributing reads and writes across the row space of the table.
- B. The performance issue should be resolved over time as the size of the Bigtable cluster is increased.
- C. Redesign the schema to use a single row key to identify values that need to be updated frequently in the cluster.
- D. Redesign the schema to use row keys based on numeric IDs that increase sequentially per user viewing the offers.

Answer: A

NEW QUESTION 7

- (Exam Topic 1)

You work for a car manufacturer and have set up a data pipeline using Google Cloud Pub/Sub to capture anomalous sensor events. You are using a push subscription in Cloud Pub/Sub that calls a custom HTTPS endpoint that you have created to take action of these anomalous events as they occur. Your custom HTTPS endpoint keeps getting an inordinate amount of duplicate messages. What is the most likely cause of these duplicate messages?

- A. The message body for the sensor event is too large.
- B. Your custom endpoint has an out-of-date SSL certificate.
- C. The Cloud Pub/Sub topic has too many messages published to it.
- D. Your custom endpoint is not acknowledging messages within the acknowledgement deadline.

Answer: B

NEW QUESTION 8

- (Exam Topic 1)

Your company is performing data preprocessing for a learning algorithm in Google Cloud Dataflow. Numerous data logs are being generated during this step, and the team wants to analyze them. Due to the dynamic nature of the campaign, the data is growing exponentially every hour.

The data scientists have written the following code to read the data for a new key features in the logs. BigQueryIO.Read

```
.named("ReadLogData")
```

```
.from("clouddataflow-readonly:samples.log_data")
```

You want to improve the performance of this data read. What should you do?

- A. Specify the TableReference object in the code.
- B. Use .fromQuery operation to read specific fields from the table.
- C. Use of both the Google BigQuery TableSchema and TableFieldSchema classes.
- D. Call a transform that returns TableRow objects, where each element in the PCollection represents a single row in the table.

Answer: D

NEW QUESTION 9

- (Exam Topic 1)

Your company uses a proprietary system to send inventory data every 6 hours to a data ingestion service in the cloud. Transmitted data includes a payload of several fields and the timestamp of the transmission. If there are any concerns about a transmission, the system re-transmits the data. How should you deduplicate the data most efficiently?

- A. Assign global unique identifiers (GUID) to each data entry.
- B. Compute the hash value of each data entry, and compare it with all historical data.
- C. Store each data entry as the primary key in a separate database and apply an index.
- D. Maintain a database table to store the hash value and other metadata for each data entry.

Answer: D

NEW QUESTION 10

- (Exam Topic 2)

Flowlogistic's management has determined that the current Apache Kafka servers cannot handle the data volume for their real-time inventory tracking system.

You need to build a new system on Google Cloud Platform (GCP) that will feed the proprietary tracking software. The system must be able to ingest data from a variety of global sources, process and query in real-time, and store the data reliably. Which combination of GCP products should you choose?

- A. Cloud Pub/Sub, Cloud Dataflow, and Cloud Storage
- B. Cloud Pub/Sub, Cloud Dataflow, and Local SSD
- C. Cloud Pub/Sub, Cloud SQL, and Cloud Storage
- D. Cloud Load Balancing, Cloud Dataflow, and Cloud Storage

Answer: C

NEW QUESTION 10

- (Exam Topic 3)

You create a new report for your large team in Google Data Studio 360. The report uses Google BigQuery as its data source. It is company policy to ensure employees can view only the data associated with their region, so you create and populate a table for each region. You need to enforce the regional access policy to the data.

Which two actions should you take? (Choose two.)

- A. Ensure all the tables are included in global dataset.
- B. Ensure each table is included in a dataset for a region.
- C. Adjust the settings for each table to allow a related region-based security group view access.
- D. Adjust the settings for each view to allow a related region-based security group view access.
- E. Adjust the settings for each dataset to allow a related region-based security group view access.

Answer: BD

NEW QUESTION 13

- (Exam Topic 4)

You work for a manufacturing plant that batches application log files together into a single log file once a day at 2:00 AM. You have written a Google Cloud Dataflow job to process that log file. You need to make sure the log file is processed once per day as inexpensively as possible. What should you do?

- A. Change the processing job to use Google Cloud Dataproc instead.
- B. Manually start the Cloud Dataflow job each morning when you get into the office.
- C. Create a cron job with Google App Engine Cron Service to run the Cloud Dataflow job.
- D. Configure the Cloud Dataflow job as a streaming job so that it processes the log data immediately.

Answer: C

NEW QUESTION 15

- (Exam Topic 4)

You are deploying a new storage system for your mobile application, which is a media streaming service. You decide the best fit is Google Cloud Datastore. You have entities with multiple properties, some of which can take on multiple values. For example, in the entity 'Movie' the property 'actors' and the property 'tags' have multiple values but the property 'date released' does not. A typical query would ask for all movies with actor=<actorname> ordered by date_released or all movies with tag=Comedy ordered by date_released. How should you avoid a combinatorial explosion in the number of indexes?

A. Manually configure the index in your index config as follows:

Indexes:

-kind: Movie

Properties:

-name: actors

name: date_released

-kind: Movie

Properties:

-name: tags

name: date_released

B. Manually configure the index in your index config as follows:

Indexes:

-kind: Movie

Properties:

-name: actors

-name: tags

-name: date_published

C. Set the following in your entity options: exclude_from_indexes = 'actors, tags'

D. Set the following in your entity options: exclude_from_indexes = 'date_published'

- A. Option A
- B. Option B.
- C. Option C
- D. Option D

Answer: A

NEW QUESTION 17

- (Exam Topic 4)

You work for a large fast food restaurant chain with over 400,000 employees. You store employee information in Google BigQuery in a Users table consisting of a FirstName field and a LastName field. A member of IT is building an application and asks you to modify the schema and data in BigQuery so the application can query a FullName field consisting of the value of the FirstName field concatenated with a space, followed by the value of the LastName field for each employee. How can you make that data available while minimizing cost?

- A. Create a view in BigQuery that concatenates the FirstName and LastName field values to produce the FullName.
- B. Add a new column called FullName to the Users table
- C. Run an UPDATE statement that updates the FullName column for each user with the concatenation of the FirstName and LastName values.
- D. Create a Google Cloud Dataflow job that queries BigQuery for the entire Users table, concatenates the FirstName value and LastName value for each user, and loads the proper values for FirstName, LastName, and FullName into a new table in BigQuery.
- E. Use BigQuery to export the data for the table to a CSV file
- F. Create a Google Cloud Dataproc job to process the CSV file and output a new CSV file containing the proper values for FirstName, LastName and FullName
- G. Run a BigQuery load job to load the new CSV file into BigQuery.

Answer: C

NEW QUESTION 19

- (Exam Topic 4)

You are designing the database schema for a machine learning-based food ordering service that will predict what users want to eat. Here is some of the information you need to store:

- The user profile: What the user likes and doesn't like to eat
- The user account information: Name, address, preferred meal times
- The order information: When orders are made, from where, to whom

The database will be used to store all the transactional data of the product. You want to optimize the data schema. Which Google Cloud Platform product should you use?

- A. BigQuery
- B. Cloud SQL
- C. Cloud Bigtable
- D. Cloud Datastore

Answer: A

NEW QUESTION 24

- (Exam Topic 4)

Your company has recently grown rapidly and now ingesting data at a significantly higher rate than it was previously. You manage the daily batch MapReduce analytics jobs in Apache Hadoop. However, the recent increase in data has meant the batch jobs are falling behind. You were asked to recommend ways the development team could increase the responsiveness of the analytics without increasing costs. What should you recommend they do?

- A. Rewrite the job in Pig.
- B. Rewrite the job in Apache Spark.
- C. Increase the size of the Hadoop cluster.
- D. Decrease the size of the Hadoop cluster but also rewrite the job in Hive.

Answer: A

NEW QUESTION 25

- (Exam Topic 5)

Which of these is NOT a way to customize the software on Dataproc cluster instances?

- A. Set initialization actions
- B. Modify configuration files using cluster properties
- C. Configure the cluster using Cloud Deployment Manager
- D. Log into the master node and make changes from there

Answer: C

Explanation:

You can access the master node of the cluster by clicking the SSH button next to it in the Cloud Console.

You can easily use the --properties option of the dataproc command in the Google Cloud SDK to modify many common configuration files when creating a cluster.

When creating a Cloud Dataproc cluster, you can specify initialization actions in executables and/or scripts that Cloud Dataproc will run on all nodes in your Cloud Dataproc cluster immediately after the cluster is set up. [<https://cloud.google.com/dataproc/docs/concepts/configuring-clusters/init-actions>]

Reference: <https://cloud.google.com/dataproc/docs/concepts/configuring-clusters/cluster-properties>

NEW QUESTION 27

- (Exam Topic 5)

The Dataflow SDKs have been recently transitioned into which Apache service?

- A. Apache Spark
- B. Apache Hadoop
- C. Apache Kafka
- D. Apache Beam

Answer: D

Explanation:

Dataflow SDKs are being transitioned to Apache Beam, as per the latest Google directive Reference: <https://cloud.google.com/dataflow/docs/>

NEW QUESTION 30

- (Exam Topic 5)

How can you get a neural network to learn about relationships between categories in a categorical feature?

- A. Create a multi-hot column
- B. Create a one-hot column
- C. Create a hash bucket
- D. Create an embedding column

Answer: D

Explanation:

There are two problems with one-hot encoding. First, it has high dimensionality, meaning that instead of having just one value, like a continuous feature, it has

many values, or dimensions. This makes computation more time-consuming, especially if a feature has a very large number of categories. The second problem is that it doesn't encode any relationships between the categories. They are completely independent from each other, so the network has no way of knowing which ones are similar to each other.

Both of these problems can be solved by representing a categorical feature with an embedding

column. The idea is that each category has a smaller vector with, let's say, 5 values in it. But unlike a one-hot vector, the values are not usually 0. The values are weights, similar to the weights that are used for basic features in a neural network. The difference is that each category has a set of weights (5 of them in this case).

You can think of each value in the embedding vector as a feature of the category. So, if two categories are very similar to each other, then their embedding vectors should be very similar too.

Reference:

<https://cloudacademy.com/google/introduction-to-google-cloud-machine-learning-engine-course/a-wide-and-dee>

NEW QUESTION 34

- (Exam Topic 5)

Which row keys are likely to cause a disproportionate number of reads and/or writes on a particular node in a Bigtable cluster (select 2 answers)?

- A. A sequential numeric ID
- B. A timestamp followed by a stock symbol
- C. A non-sequential numeric ID
- D. A stock symbol followed by a timestamp

Answer: AB

Explanation:

using a timestamp as the first element of a row key can cause a variety of problems.

In brief, when a row key for a time series includes a timestamp, all of your writes will target a single node; fill that node; and then move onto the next node in the cluster, resulting in hotspotting.

Suppose your system assigns a numeric ID to each of your application's users. You might be tempted to use the user's numeric ID as the row key for your table. However, since new users are more likely to be active users, this approach is likely to push most of your traffic to a small number of nodes.

[<https://cloud.google.com/bigtable/docs/schema-design>]

Reference:

https://cloud.google.com/bigtable/docs/schema-design-time-series#ensure_that_your_row_key_avoids_hotspotti

NEW QUESTION 38

- (Exam Topic 5)

The for Cloud Bigtable makes it possible to use Cloud Bigtable in a Cloud Dataflow pipeline.

- A. Cloud Dataflow connector
- B. DataFlow SDK
- C. BigQuery API
- D. BigQuery Data Transfer Service

Answer: A

Explanation:

The Cloud Dataflow connector for Cloud Bigtable makes it possible to use Cloud Bigtable in a Cloud Dataflow pipeline. You can use the connector for both batch and streaming operations.

Reference: <https://cloud.google.com/bigtable/docs/dataflow-hbase>

NEW QUESTION 42

- (Exam Topic 5)

Which TensorFlow function can you use to configure a categorical column if you don't know all of the possible values for that column?

- A. categorical_column_with_vocabulary_list
- B. categorical_column_with_hash_bucket
- C. categorical_column_with_unknown_values
- D. sparse_column_with_keys

Answer: B

Explanation:

If you know the set of all possible feature values of a column and there are only a few of them, you can use categorical_column_with_vocabulary_list. Each key in the list will get assigned an auto-incremental ID starting from 0.

What if we don't know the set of possible values in advance? Not a problem. We can use categorical_column_with_hash_bucket instead. What will happen is that each possible value in the feature column occupation will be hashed to an integer ID as we encounter them in training.

Reference: <https://www.tensorflow.org/tutorials/wide>

NEW QUESTION 44

- (Exam Topic 5)

What are two methods that can be used to denormalize tables in BigQuery?

- A. 1) Split table into multiple tables; 2) Use a partitioned table
- B. 1) Join tables into one table; 2) Use nested repeated fields
- C. 1) Use a partitioned table; 2) Join tables into one table
- D. 1) Use nested repeated fields; 2) Use a partitioned table

Answer: B

Explanation:

The conventional method of denormalizing data involves simply writing a fact, along with all its dimensions, into a flat table structure. For example, if you are dealing with sales transactions, you would write each individual fact to a record, along with the accompanying dimensions such as order and customer information. The other method for denormalizing data takes advantage of BigQuery's native support for nested and repeated structures in JSON or Avro input data. Expressing records using nested and repeated structures can provide a more natural representation of the underlying data. In the case of the sales order, the outer part of a JSON structure would contain the order and customer information, and the inner part of the structure would contain the individual line items of the order, which would be represented as nested, repeated elements.

Reference: https://cloud.google.com/solutions/bigquery-data-warehouse#denormalizing_data

NEW QUESTION 48

- (Exam Topic 5)

Suppose you have a table that includes a nested column called "city" inside a column called "person", but when you try to submit the following query in BigQuery, it gives you an error.

SELECT person FROM `project1.example.table1` WHERE city = "London" How would you correct the error?

- A. Add ", UNNEST(person)" before the WHERE clause.
- B. Change "person" to "person.city".
- C. Change "person" to "city.person".
- D. Add ", UNNEST(city)" before the WHERE clause.

Answer: A

Explanation:

To access the person.city column, you need to "UNNEST(person)" and JOIN it to table1 using a comma. Reference:

https://cloud.google.com/bigquery/docs/reference/standard-sql/migrating-from-legacy-sql#nested_repeated_resu

NEW QUESTION 53

- (Exam Topic 5)

What is the HBase Shell for Cloud Bigtable?

- A. The HBase shell is a GUI based interface that performs administrative tasks, such as creating and deleting tables.
- B. The HBase shell is a command-line tool that performs administrative tasks, such as creating and deleting tables.
- C. The HBase shell is a hypervisor based shell that performs administrative tasks, such as creating and deleting new virtualized instances.
- D. The HBase shell is a command-line tool that performs only user account management functions to grant access to Cloud Bigtable instances.

Answer: B

Explanation:

The HBase shell is a command-line tool that performs administrative tasks, such as creating and deleting tables. The Cloud Bigtable HBase client for Java makes it possible to use the HBase shell to connect to Cloud Bigtable.

Reference: <https://cloud.google.com/bigtable/docs/installing-hbase-shell>

NEW QUESTION 55

- (Exam Topic 5)

What are the minimum permissions needed for a service account used with Google Dataproc?

- A. Execute to Google Cloud Storage; write to Google Cloud Logging
- B. Write to Google Cloud Storage; read to Google Cloud Logging
- C. Execute to Google Cloud Storage; execute to Google Cloud Logging
- D. Read and write to Google Cloud Storage; write to Google Cloud Logging

Answer: D

Explanation:

Service accounts authenticate applications running on your virtual machine instances to other Google Cloud Platform services. For example, if you write an application that reads and writes files on Google Cloud Storage, it must first authenticate to the Google Cloud Storage API. At a minimum, service accounts used with Cloud Dataproc need permissions to read and write to Google Cloud Storage, and to write to Google Cloud Logging.

Reference: https://cloud.google.com/dataproc/docs/concepts/service-accounts#important_notes

NEW QUESTION 56

- (Exam Topic 5)

Which of these rules apply when you add preemptible workers to a Dataproc cluster (select 2 answers)?

- A. Preemptible workers cannot use persistent disk.
- B. Preemptible workers cannot store data.
- C. If a preemptible worker is reclaimed, then a replacement worker must be added manually.
- D. A Dataproc cluster cannot have only preemptible workers.

Answer: BD

Explanation:

The following rules will apply when you use preemptible workers with a Cloud Dataproc cluster: Processing only—Since preemptibles can be reclaimed at any time, preemptible workers do not store data.

Preemptibles added to a Cloud Dataproc cluster only function as processing nodes.

No preemptible-only clusters—To ensure clusters do not lose all workers, Cloud Dataproc cannot create preemptible-only clusters.

Persistent disk size—As a default, all preemptible workers are created with the smaller of 100GB or the primary worker boot disk size. This disk space is used for local caching of data and is not available through HDFS.

The managed group automatically re-adds workers lost due to reclamation as capacity permits. Reference:

<https://cloud.google.com/dataproc/docs/concepts/preemptible-vms>

NEW QUESTION 57

- (Exam Topic 5)

Which of the following IAM roles does your Compute Engine account require to be able to run pipeline jobs?

- A. dataflow.worker
- B. dataflow.compute
- C. dataflow.developer
- D. dataflow.viewer

Answer: A

Explanation:

The dataflow.worker role provides the permissions necessary for a Compute Engine service account to execute work units for a Dataflow pipeline

Reference: <https://cloud.google.com/dataflow/access-control>

NEW QUESTION 62

- (Exam Topic 5)

Why do you need to split a machine learning dataset into training data and test data?

- A. So you can try two different sets of features
- B. To make sure your model is generalized for more than just the training data
- C. To allow you to create unit tests in your code
- D. So you can use one dataset for a wide model and one for a deep model

Answer: B

Explanation:

The flaw with evaluating a predictive model on training data is that it does not inform you on how well the model has generalized to new unseen data. A model that is selected for its accuracy on the training dataset rather than its accuracy on an unseen test dataset is very likely to have lower accuracy on an unseen test dataset. The reason is that the model is not as generalized. It has specialized to the structure in the training dataset. This is called overfitting.

Reference: <https://machinelearningmastery.com/a-simple-intuition-for-overfitting/>

NEW QUESTION 63

- (Exam Topic 5)

Which is the preferred method to use to avoid hotspotting in time series data in Bigtable?

- A. Field promotion
- B. Randomization
- C. Salting
- D. Hashing

Answer: A

Explanation:

By default, prefer field promotion. Field promotion avoids hotspotting in almost all cases, and it tends to make it easier to design a row key that facilitates queries.

Reference:

https://cloud.google.com/bigtable/docs/schema-design-time-series#ensure_that_your_row_key_avoids_hotspotti

NEW QUESTION 64

- (Exam Topic 5)

When you store data in Cloud Bigtable, what is the recommended minimum amount of stored data?

- A. 500 TB
- B. 1 GB
- C. 1 TB
- D. 500 GB

Answer: C

Explanation:

Cloud Bigtable is not a relational database. It does not support SQL queries, joins, or multi-row transactions. It is not a good solution for less than 1 TB of data.

Reference: https://cloud.google.com/bigtable/docs/overview#title_short_and_other_storage_options

NEW QUESTION 68

- (Exam Topic 5)

Which of these is not a supported method of putting data into a partitioned table?

- A. If you have existing data in a separate file for each day, then create a partitioned table and upload each file into the appropriate partition.
- B. Run a query to get the records for a specific day from an existing table and for the destination table, specify a partitioned table ending with the day in the format "\$YYYYMMDD".
- C. Create a partitioned table and stream new records to it every day.
- D. Use ORDER BY to put a table's rows into chronological order and then change the table's type to "Partitioned".

Answer: D

Explanation:

You cannot change an existing table into a partitioned table. You must create a partitioned table from scratch. Then you can either stream data into it every day and the data will automatically be put in the right partition, or you can load data into a specific partition by using "\$YYYYMMDD" at the end of the table name.

Reference: <https://cloud.google.com/bigquery/docs/partitioned-tables>

NEW QUESTION 73

- (Exam Topic 5)

What are two of the benefits of using denormalized data structures in BigQuery?

- A. Reduces the amount of data processed, reduces the amount of storage required
- B. Increases query speed, makes queries simpler
- C. Reduces the amount of storage required, increases query speed
- D. Reduces the amount of data processed, increases query speed

Answer: B

Explanation:

Denormalization increases query speed for tables with billions of rows because BigQuery's performance degrades when doing JOINS on large tables, but with a denormalized data structure, you don't have to use JOINS, since all of the data has been combined into one table. Denormalization also makes queries simpler because you do not have to use JOIN clauses.

Denormalization increases the amount of data processed and the amount of storage required because it creates redundant data.

Reference:

https://cloud.google.com/solutions/bigquery-data-warehouse#denormalizing_data

NEW QUESTION 77

- (Exam Topic 5)

Which of the following are examples of hyperparameters? (Select 2 answers.)

- A. Number of hidden layers
- B. Number of nodes in each hidden layer
- C. Biases
- D. Weights

Answer: AB

Explanation:

If model parameters are variables that get adjusted by training with existing data, your hyperparameters are the variables about the training process itself. For example, part of setting up a deep neural network is deciding how many "hidden" layers of nodes to use between the input layer and the output layer, as well as how many nodes each layer should use. These variables are not directly related to the training data at all. They are configuration variables. Another difference is that parameters change during a training job, while the hyperparameters are usually constant during a job.

Weights and biases are variables that get adjusted during the training process, so they are not hyperparameters. Reference: <https://cloud.google.com/ml-engine/docs/hyperparameter-tuning-overview>

NEW QUESTION 82

- (Exam Topic 5)

What are all of the BigQuery operations that Google charges for?

- A. Storage, queries, and streaming inserts
- B. Storage, queries, and loading data from a file
- C. Storage, queries, and exporting data
- D. Queries and streaming inserts

Answer: A

Explanation:

Google charges for storage, queries, and streaming inserts. Loading data from a file and exporting data are free operations.

Reference: <https://cloud.google.com/bigquery/pricing>

NEW QUESTION 85

- (Exam Topic 5)

Which of the following is not true about Dataflow pipelines?

- A. Pipelines are a set of operations
- B. Pipelines represent a data processing job
- C. Pipelines represent a directed graph of steps
- D. Pipelines can share data between instances

Answer: D

Explanation:

The data and transforms in a pipeline are unique to, and owned by, that pipeline. While your program can create multiple pipelines, pipelines cannot share data or transforms

Reference: <https://cloud.google.com/dataflow/model/pipelines>

NEW QUESTION 89

- (Exam Topic 5)

Which of these operations can you perform from the BigQuery Web UI?

- A. Upload a file in SQL format.
- B. Load data with nested and repeated fields.

- C. Upload a 20 MB file.
- D. Upload multiple files using a wildcard.

Answer: B

Explanation:

You can load data with nested and repeated fields using the Web UI. You cannot use the Web UI to:

- Upload a file greater than 10 MB in size
- Upload multiple files at the same time
- Upload a file in SQL format

All three of the above operations can be performed using the "bq" command. Reference: <https://cloud.google.com/bigquery/loading-data>

NEW QUESTION 91

- (Exam Topic 5)

Google Cloud Bigtable indexes a single value in each row. This value is called the .

- A. primary key
- B. unique key
- C. row key
- D. master key

Answer: C

Explanation:

Cloud Bigtable is a sparsely populated table that can scale to billions of rows and thousands of columns, allowing you to store terabytes or even petabytes of data.

A single value in each row is indexed; this value is known as the row key.

Reference: <https://cloud.google.com/bigtable/docs/overview>

NEW QUESTION 94

- (Exam Topic 5)

Which of these statements about exporting data from BigQuery is false?

- A. To export more than 1 GB of data, you need to put a wildcard in the destination filename.
- B. The only supported export destination is Google Cloud Storage.
- C. Data can only be exported in JSON or Avro format.
- D. The only compression option available is GZIP.

Answer: C

Explanation:

Data can be exported in CSV, JSON, or Avro format. If you are exporting nested or repeated data, then CSV format is not supported.

Reference: <https://cloud.google.com/bigquery/docs/exporting-data>

NEW QUESTION 98

- (Exam Topic 5)

When using Cloud Dataproc clusters, you can access the YARN web interface by configuring a browser to connect through a proxy.

- A. HTTPS
- B. VPN
- C. SOCKS
- D. HTTP

Answer: C

Explanation:

When using Cloud Dataproc clusters, configure your browser to use the SOCKS proxy. The SOCKS proxy routes data intended for the Cloud Dataproc cluster through an SSH tunnel.

Reference: <https://cloud.google.com/dataproc/docs/concepts/cluster-web-interfaces#interfaces>

NEW QUESTION 103

- (Exam Topic 6)

You use a dataset in BigQuery for analysis. You want to provide third-party companies with access to the same dataset. You need to keep the costs of data sharing low and ensure that the data is current. Which solution should you choose?

- A. Create an authorized view on the BigQuery table to control data access, and provide third-party companies with access to that view.
- B. Use Cloud Scheduler to export the data on a regular basis to Cloud Storage, and provide third-party companies with access to the bucket.
- C. Create a separate dataset in BigQuery that contains the relevant data to share, and provide third-party companies with access to the new dataset.
- D. Create a Cloud Dataflow job that reads the data in frequent time intervals, and writes it to the relevant BigQuery dataset or Cloud Storage bucket for third-party companies to use.

Answer: B

NEW QUESTION 107

- (Exam Topic 6)

You operate a logistics company, and you want to improve event delivery reliability for vehicle-based sensors. You operate small data centers around the world to capture these events, but leased lines that provide connectivity from your event collection infrastructure to your event processing infrastructure are unreliable, with unpredictable latency. You want to address this issue in the most cost-effective way. What should you do?

- A. Deploy small Kafka clusters in your data centers to buffer events.
- B. Have the data acquisition devices publish data to Cloud Pub/Sub.
- C. Establish a Cloud Interconnect between all remote data centers and Google.
- D. Write a Cloud Dataflow pipeline that aggregates all data in session windows.

Answer: B

NEW QUESTION 111

- (Exam Topic 6)

You are building a new application that you need to collect data from in a scalable way. Data arrives continuously from the application throughout the day, and you expect to generate approximately 150 GB of JSON data per day by the end of the year. Your requirements are:

- Decoupling producer from consumer
- Space and cost-efficient storage of the raw ingested data, which is to be stored indefinitely
- Near real-time SQL query
- Maintain at least 2 years of historical data, which will be queried with SQ Which pipeline should you use to meet these requirements?

- A. Create an application that provides an AP
- B. Write a tool to poll the API and write data to Cloud Storage as gzipped JSON files.
- C. Create an application that writes to a Cloud SQL database to store the dat
- D. Set up periodic exports of the database to write to Cloud Storage and load into BigQuery.
- E. Create an application that publishes events to Cloud Pub/Sub, and create Spark jobs on Cloud Dataproc to convert the JSON data to Avro format, stored on HDFS on Persistent Disk.
- F. Create an application that publishes events to Cloud Pub/Sub, and create a Cloud Dataflow pipeline that transforms the JSON event payloads to Avro, writing the data to Cloud Storage and BigQuery.

Answer: A

NEW QUESTION 113

- (Exam Topic 6)

You need to set access to BigQuery for different departments within your company. Your solution should comply with the following requirements:

- Each department should have access only to their data.
- Each department will have one or more leads who need to be able to create and update tables and provide them to their team.
- Each department has data analysts who need to be able to query but not modify data. How should you set access to the data in BigQuery?

- A. Create a dataset for each departmen
- B. Assign the department leads the role of OWNER, and assign the data analysts the role of WRITER on their dataset.
- C. Create a dataset for each departmen
- D. Assign the department leads the role of WRITER, and assign the data analysts the role of READER on their dataset.
- E. Create a table for each departmen
- F. Assign the department leads the role of Owner, and assign the data analysts the role of Editor on the project the table is in.
- G. Create a table for each departmen
- H. Assign the department leads the role of Editor, and assign the data analysts the role of Viewer on the project the table is in.

Answer: D

NEW QUESTION 118

- (Exam Topic 6)

You need to copy millions of sensitive patient records from a relational database to BigQuery. The total size of the database is 10 TB. You need to design a solution that is secure and time-efficient. What should you do?

- A. Export the records from the database as an Avro fil
- B. Upload the file to GCS using gsutil, and then load the Avro file into BigQuery using the BigQuery web UI in the GCP Console.
- C. Export the records from the database as an Avro fil
- D. Copy the file onto a Transfer Appliance and send it to Google, and then load the Avro file into BigQuery using the BigQuery web UI in the GCP Console.
- E. Export the records from the database into a CSV fil
- F. Create a public URL for the CSV file, and then use Storage Transfer Service to move the file to Cloud Storag
- G. Load the CSV file into BigQuery using the BigQuery web UI in the GCP Console.
- H. Export the records from the database as an Avro fil
- I. Create a public URL for the Avro file, and then use Storage Transfer Service to move the file to Cloud Storag
- J. Load the Avro file into BigQuery using the BigQuery web UI in the GCP Console.

Answer: A

NEW QUESTION 120

- (Exam Topic 6)

You are migrating a table to BigQuery and are deeding on the data model. Your table stores information related to purchases made across several store locations and includes information like the time of the transaction, items purchased, the store ID and the city and state in which the store is located You frequently query this table to see how many of each item were sold over the past 30 days and to look at purchasing trends by state city and individual store. You want to model this table to minimize query time and cost. What should you do?

- A. Partition by transaction time; cluster by state first, then city then store ID
- B. Partition by transaction tome cluster by store ID first, then city, then stale
- C. Top-level cluster by stale first, then city then store
- D. Top-level cluster by store ID first, then city then state.

Answer: C

NEW QUESTION 122

- (Exam Topic 6)

You need to migrate a 2TB relational database to Google Cloud Platform. You do not have the resources to significantly refactor the application that uses this database and cost to operate is of primary concern.

Which service do you select for storing and serving your data?

- A. Cloud Spanner
- B. Cloud Bigtable
- C. Cloud Firestore
- D. Cloud SQL

Answer: D

NEW QUESTION 123

- (Exam Topic 6)

You need ads data to serve AI models and historical data for analytics longtail and outlier data points need to be identified You want to cleanse the data in near-real time before running it through AI models What should you do?

- A. Use BigQuery to ingest prepare and then analyze the data and then run queries to create views
- B. Use Cloud Storage as a data warehouse shell scripts for processing, and BigQuery to create views for desired datasets
- C. Use Dataflow to identify longtail and outlier data points programmatically with BigQuery as a sink
- D. Use Cloud Composer to identify longtail and outlier data points, and then output a usable dataset to BigQuery

Answer: A

NEW QUESTION 124

- (Exam Topic 6)

You work on a regression problem in a natural language processing domain, and you have 100M labeled examples in your dataset. You have randomly shuffled your data and split your dataset into train and test samples (in a 90/10 ratio). After you trained the neural network and evaluated your model on a test set, you discover that the root-mean-squared error (RMSE) of your model is twice as high on the train set as on the test set. How should you improve the performance of your model?

- A. Increase the share of the test sample in the train-test split.
- B. Try to collect more data and increase the size of your dataset.
- C. Try out regularization techniques (e.g., dropout of batch normalization) to avoid overfitting.
- D. Increase the complexity of your model by, e.g., introducing an additional layer or increase sizing the size of vocabularies or n-grams used.

Answer: D

NEW QUESTION 128

- (Exam Topic 6)

Government regulations in the banking industry mandate the protection of client's personally identifiable information (PII). Your company requires PII to be access controlled encrypted and compliant with major data protection standards In addition to using Cloud Data Loss Prevention (Cloud DIP) you want to follow Google-recommended practices and use service accounts to control access to PII. What should you do?

- A. Assign the required identity and Access Management (IAM) roles to every employee, and create a single service account to access protect resources
- B. Use one service account to access a Cloud SQL database and use separate service accounts for each human user
- C. Use Cloud Storage to comply with major data protection standard
- D. Use one service account shared by all users
- E. Use Cloud Storage to comply with major data protection standard
- F. Use multiple service accounts attached to IAM groups to grant the appropriate access to each group

Answer: D

NEW QUESTION 132

- (Exam Topic 6)

Your company currently runs a large on-premises cluster using Spark Hive and Hadoop Distributed File System (HDFS) in a colocation facility. The cluster is designed to support peak usage on the system, however, many jobs are batch in nature, and usage of the cluster fluctuates quite dramatically.

Your company is eager to move to the cloud to reduce the overhead associated with on-premises infrastructure and maintenance and to benefit from the cost savings. They are also hoping to modernize their existing infrastructure to use more servers offerings in order to take advantage of the cloud Because of the timing of their contract renewal with the colocation facility they have only 2 months for their initial migration How should you recommend they approach their upcoming migration strategy so they can maximize their cost savings in the cloud while still executing the migration in time?

- A. Migrate the workloads to Dataproc plus HOPS, modernize later
- B. Migrate the workloads to Dataproc plus Cloud Storage modernize later
- C. Migrate the Spark workload to Dataproc plus HDFS, and modernize the Hive workload for BigQuery
- D. Modernize the Spark workload for Dataflow and the Hive workload for BigQuery

Answer: D

NEW QUESTION 136

- (Exam Topic 6)

You have historical data covering the last three years in BigQuery and a data pipeline that delivers new data to BigQuery daily. You have noticed that when the Data Science team runs a query filtered on a date column and limited to 30–90 days of data, the query scans the entire table. You also noticed that your bill is increasing more quickly than you expected. You want to resolve the issue as cost-effectively as possible while maintaining the ability to conduct SQL queries. What should you do?

- A. Re-create the tables using DD
- B. Partition the tables by a column containing a TIMESTAMP or DATETIME.
- C. Recommend that the Data Science team export the table to a CSV file on Cloud Storage and use Cloud Datalab to explore the data by reading the files directly.
- D. Modify your pipeline to maintain the last 30–90 days of data in one table and the longer history in a different table to minimize full table scans over the entire history.
- E. Write an Apache Beam pipeline that creates a BigQuery table per day
- F. Recommend that the Data Science team use wildcards on the table name suffixes to select the data they need.

Answer: C

NEW QUESTION 140

- (Exam Topic 6)

Each analytics team in your organization is running BigQuery jobs in their own projects. You want to enable each team to monitor slot usage within their projects. What should you do?

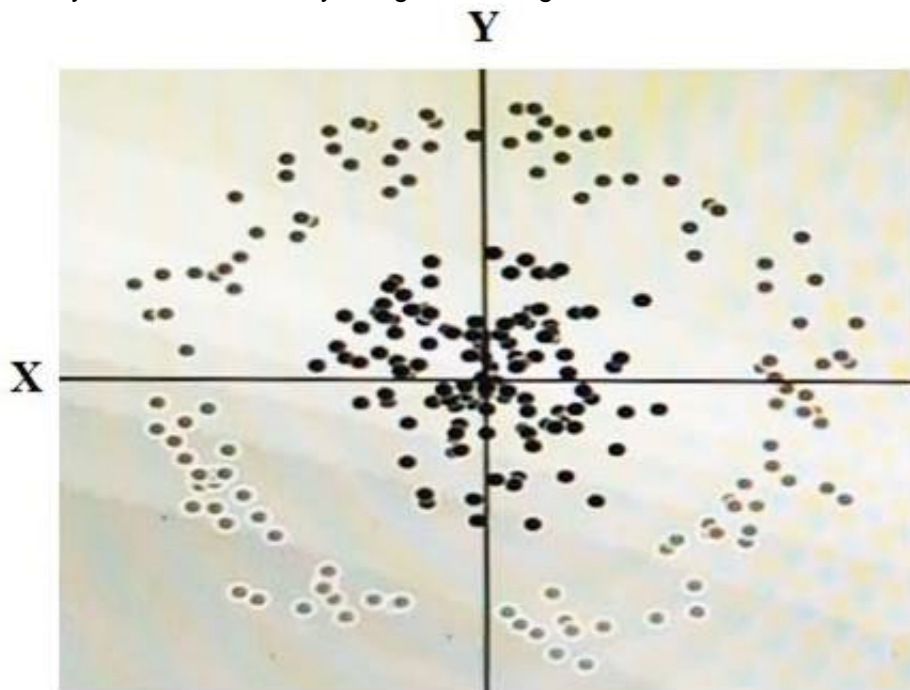
- A. Create a Stackdriver Monitoring dashboard based on the BigQuery metric query/scanned_bytes
- B. Create a Stackdriver Monitoring dashboard based on the BigQuery metric slots/allocated_for_project
- C. Create a log export for each project, capture the BigQuery job execution logs, create a custom metric based on the totalSlotMs, and create a Stackdriver Monitoring dashboard based on the custom metric
- D. Create an aggregated log export at the organization level, capture the BigQuery job execution logs, create a custom metric based on the totalSlotMs, and create a Stackdriver Monitoring dashboard based on the custom metric

Answer: D

NEW QUESTION 145

- (Exam Topic 6)

You have some data, which is shown in the graphic below. The two dimensions are X and Y, and the shade of each dot represents what class it is. You want to classify this data accurately using a linear algorithm.



To do this you need to add a synthetic feature. What should the value of that feature be?

- A. $X^2 + Y^2$
- B. X^2
- C. Y^2
- D. $\cos(X)$

Answer: D

NEW QUESTION 147

- (Exam Topic 6)

You need to deploy additional dependencies to all of a Cloud Dataproc cluster at startup using an existing initialization action. Company security policies require that Cloud Dataproc nodes do not have access to the Internet so public initialization actions cannot fetch resources. What should you do?

- A. Deploy the Cloud SQL Proxy on the Cloud Dataproc master
- B. Use an SSH tunnel to give the Cloud Dataproc cluster access to the Internet
- C. Copy all dependencies to a Cloud Storage bucket within your VPC security perimeter
- D. Use Resource Manager to add the service account used by the Cloud Dataproc cluster to the Network User role

Answer: D

NEW QUESTION 148

- (Exam Topic 6)

You are designing a pipeline that publishes application events to a Pub/Sub topic. You need to aggregate events across hourly intervals before loading the results to BigQuery for analysis. Your solution must be scalable so it can process and load large volumes of events to BigQuery. What should you do?

- A. Create a streaming Dataflow job to continually read from the Pub/Sub topic and perform the necessary aggregations using tumbling windows
- B. Schedule a batch Dataflow job to run hourly, pulling all available messages from the Pub/Sub topic and performing the necessary aggregations
- C. Schedule a Cloud Function to run hourly, pulling all available messages from the Pub/Sub topic and performing the necessary aggregations
- D. Create a Cloud Function to perform the necessary data processing that executes using the Pub/Sub trigger every time a new message is published to the topic.

Answer: A

NEW QUESTION 152

- (Exam Topic 6)

You are a retailer that wants to integrate your online sales capabilities with different in-home assistants, such as Google Home. You need to interpret customer voice commands and issue an order to the backend systems. Which solutions should you choose?

- A. Cloud Speech-to-Text API
- B. Cloud Natural Language API
- C. Dialogflow Enterprise Edition
- D. Cloud AutoML Natural Language

Answer: C

NEW QUESTION 157

- (Exam Topic 6)

You work for a bank. You have a labelled dataset that contains information on already granted loan application and whether these applications have been defaulted. You have been asked to train a model to predict default rates for credit applicants. What should you do?

- A. Increase the size of the dataset by collecting additional data.
- B. Train a linear regression to predict a credit default risk score.
- C. Remove the bias from the data and collect applications that have been declined loans.
- D. Match loan applicants with their social profiles to enable feature engineering.

Answer: B

NEW QUESTION 158

- (Exam Topic 6)

You are using BigQuery and Data Studio to design a customer-facing dashboard that displays large quantities of aggregated data. You expect a high volume of concurrent users. You need to optimize the dashboard to provide quick visualizations with minimal latency. What should you do?

- A. Use BigQuery BI Engine with materialized views
- B. Use BigQuery BI Engine with streaming data.
- C. Use BigQuery BI Engine with authorized views
- D. Use BigQuery BI Engine with logical reviews

Answer: B

NEW QUESTION 161

- (Exam Topic 6)

You are using Cloud Bigtable to persist and serve stock market data for each of the major indices. To serve the trading application, you need to access only the most recent stock prices that are streaming in. How should you design your row key and tables to ensure that you can access the data with the most simple query?

- A. Create one unique table for all of the indices, and then use the index and timestamp as the row key design
- B. Create one unique table for all of the indices, and then use a reverse timestamp as the row key design.
- C. For each index, have a separate table and use a timestamp as the row key design
- D. For each index, have a separate table and use a reverse timestamp as the row key design

Answer: A

NEW QUESTION 162

- (Exam Topic 6)

Your company needs to upload their historic data to Cloud Storage. The security rules don't allow access from external IPs to their on-premises resources. After an initial upload, they will add new data from existing on-premises applications every day. What should they do?

- A. Execute gsutil rsync from the on-premises servers.
- B. Use Cloud Dataflow and write the data to Cloud Storage.
- C. Write a job template in Cloud Dataproc to perform the data transfer.
- D. Install an FTP server on a Compute Engine VM to receive the files and move them to Cloud Storage.

Answer: B

NEW QUESTION 164

- (Exam Topic 6)

You set up a streaming data insert into a Redis cluster via a Kafka cluster. Both clusters are running on Compute Engine instances. You need to encrypt data at rest with encryption keys that you can create, rotate, and destroy as needed. What should you do?

- A. Create a dedicated service account, and use encryption at rest to reference your data stored in your Compute Engine cluster instances as part of your API service calls.
- B. Create encryption keys in Cloud Key Management Service
- C. Use those keys to encrypt your data in all of the Compute Engine cluster instances.
- D. Create encryption keys locally
- E. Upload your encryption keys to Cloud Key Management Service
- F. Use those keys to encrypt your data in all of the Compute Engine cluster instances.
- G. Create encryption keys in Cloud Key Management Service

H. Reference those keys in your API service calls when accessing the data in your Compute Engine cluster instances.

Answer: C

NEW QUESTION 168

- (Exam Topic 6)

You are working on a linear regression model on BigQuery ML to predict a customer's likelihood of purchasing your company's products. Your model uses a city name variable as a key predictive component in order to train and serve the model your data must be organized in columns. You want to prepare your data using the least amount of coding while maintaining the predictable variables. What should you do?

- A. Use SQL in BigQuery to transform the stale column using a one-hot encoding method, and make each city a column with binary values.
- B. Create a new view with BigQuery that does not include a column which city information.
- C. Cloud Data Fusion to assign each city to a region that is labeled as 1, 2 3, 4, or 5, and then use that number to represent the city in the model.
- D. Use TensorFlow to create a categorical variable with a vocabulary list
- E. Create the vocabulary file and upload that as part of your model to BigQuery ML.

Answer: C

NEW QUESTION 172

- (Exam Topic 6)

You want to optimize your queries for cost and performance. How should you structure your data?

- A. Partition table data by create_date, location_id and device_version
- B. Partition table data by create_date cluster table data by location_id and device_version
- C. Cluster table data by create_date location_id and device_version
- D. Cluster table data by create_date partition by location_id and device_version

Answer: B

NEW QUESTION 173

- (Exam Topic 6)

You work for a large financial institution that is planning to use Dialogflow to create a chatbot for the company's mobile app. You have reviewed old chat logs and lagged each conversation for intent based on each customer's stated intention for contacting customer service. About 70% of customer requests are simple requests that are solved within 10 intents. The remaining 30% of inquiries require much longer, more complicated requests. Which intents should you automate first?

- A. Automate the 10 intents that cover 70% of the requests so that live agents can handle more complicated requests
- B. Automate the more complicated requests first because those require more of the agents' time
- C. Automate a blend of the shortest and longest intents to be representative of all intents
- D. Automate intents in places where common words such as "payment" appear only once so the software isn't confused

Answer: A

NEW QUESTION 174

- (Exam Topic 6)

You are integrating one of your internal IT applications and Google BigQuery, so users can query BigQuery from the application's interface. You do not want individual users to authenticate to BigQuery and you do not want to give them access to the dataset. You need to securely access BigQuery from your IT application. What should you do?

- A. Create groups for your users and give those groups access to the dataset
- B. Integrate with a single sign-on (SSO) platform, and pass each user's credentials along with the query request
- C. Create a service account and grant dataset access to that account
- D. Use the service account's private key to access the dataset
- E. Create a dummy user and grant dataset access to that user
- F. Store the username and password for that user in a file on the file system, and use those credentials to access the BigQuery dataset

Answer: C

NEW QUESTION 177

- (Exam Topic 6)

You have uploaded 5 years of log data to Cloud Storage. A user reported that some data points in the log data are outside of their expected ranges, which indicates errors. You need to address this issue and be able to run the process again in the future while keeping the original data for compliance reasons. What should you do?

- A. Import the data from Cloud Storage into BigQuery. Create a new BigQuery table, and skip the rows with errors.
- B. Create a Compute Engine instance and create a new copy of the data in Cloud Storage. Skip the rows with errors.
- C. Create a Cloud Dataflow workflow that reads the data from Cloud Storage, checks for values outside the expected range, sets the value to an appropriate default, and writes the updated records to a new dataset in Cloud Storage.
- D. Create a Cloud Dataflow workflow that reads the data from Cloud Storage, checks for values outside the expected range, sets the value to an appropriate default, and writes the updated records to the same dataset in Cloud Storage.

Answer: D

NEW QUESTION 180

- (Exam Topic 6)

Your organization has been collecting and analyzing data in Google BigQuery for 6 months. The majority of the data analyzed is placed in a time-partitioned table.

named events_partitioned. To reduce the cost of queries, your organization created a view called events, which queries only the last 14 days of data. The view is described in legacy SQL. Next month, existing applications will be connecting to BigQuery to read the events data via an ODBC connection. You need to ensure the applications can connect. Which two actions should you take? (Choose two.)

- A. Create a new view over events using standard SQL
- B. Create a new partitioned table using a standard SQL query
- C. Create a new view over events_partitioned using standard SQL
- D. Create a service account for the ODBC connection to use for authentication
- E. Create a Google Cloud Identity and Access Management (Cloud IAM) role for the ODBC connection and shared “events”

Answer: AE

NEW QUESTION 181

- (Exam Topic 6)

After migrating ETL jobs to run on BigQuery, you need to verify that the output of the migrated jobs is the same as the output of the original. You've loaded a table containing the output of the original job and want to compare the contents with output from the migrated job to show that they are identical. The tables do not contain a primary key column that would enable you to join them together for comparison.

What should you do?

- A. Select random samples from the tables using the RAND() function and compare the samples.
- B. Select random samples from the tables using the HASH() function and compare the samples.
- C. Use a Dataproc cluster and the BigQuery Hadoop connector to read the data from each table and calculate a hash from non-timestamp columns of the table after sortin
- D. Compare the hashes of each table.
- E. Create stratified random samples using the OVER() function and compare equivalent samples from each table.

Answer: B

NEW QUESTION 183

- (Exam Topic 6)

Your company is currently setting up data pipelines for their campaign. For all the Google Cloud Pub/Sub streaming data, one of the important business requirements is to be able to periodically identify the inputs and their timings during their campaign. Engineers have decided to use windowing and transformation in Google Cloud Dataflow for this purpose. However, when testing this feature, they find that the Cloud Dataflow job fails for the all streaming insert. What is the most likely cause of this problem?

- A. They have not assigned the timestamp, which causes the job to fail
- B. They have not set the triggers to accommodate the data coming in late, which causes the job to fail
- C. They have not applied a global windowing function, which causes the job to fail when the pipeline is created
- D. They have not applied a non-global windowing function, which causes the job to fail when the pipeline is created

Answer: C

NEW QUESTION 186

- (Exam Topic 6)

You are planning to migrate your current on-premises Apache Hadoop deployment to the cloud. You need to ensure that the deployment is as fault-tolerant and cost-effective as possible for long-running batch jobs. You want to use a managed service. What should you do?

- A. Deploy a Cloud Dataproc cluste
- B. Use a standard persistent disk and 50% preemptible worker
- C. Store data in Cloud Storage, and change references in scripts from hdfs:// to gs://
- D. Deploy a Cloud Dataproc cluste
- E. Use an SSD persistent disk and 50% preemptible worker
- F. Store data in Cloud Storage, and change references in scripts from hdfs:// to gs://
- G. Install Hadoop and Spark on a 10-node Compute Engine instance group with standard instance
- H. Install the Cloud Storage connector, and store the data in Cloud Storag
- I. Change references in scripts from hdfs:// to gs://
- J. Install Hadoop and Spark on a 10-node Compute Engine instance group with preemptible instances.Store data in HDF
- K. Change references in scripts from hdfs:// to gs://

Answer: A

NEW QUESTION 189

- (Exam Topic 6)

You are operating a Cloud Dataflow streaming pipeline. The pipeline aggregates events from a Cloud Pub/Sub subscription source, within a window, and sinks the resulting aggregation to a Cloud Storage bucket. The source has consistent throughput. You want to monitor an alert on behavior of the pipeline with Cloud Stackdriver to ensure that it is processing data. Which Stackdriver alerts should you create?

- A. An alert based on a decrease of subscription/num_undelivered_messages for the source and a rate of change increase of instance/storage/used_bytes for the destination
- B. An alert based on an increase of subscription/num_undelivered_messages for the source and a rate of change decrease of instance/storage/used_bytes for the destination
- C. An alert based on a decrease of instance/storage/used_bytes for the source and a rate of change increase of subscription/num_undelivered_messages for the destination
- D. An alert based on an increase of instance/storage/used_bytes for the source and a rate of change decrease of subscription/num_undelivered_messages for the destination

Answer: B

NEW QUESTION 191

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