Actual exam question from Microsoft's DP-420

Question #: 1

Topic #: 1

[All DP-420 Questions]

HOTSPOT -

You have an Azure Cosmos DB Core (SQL) API account named account1 that has the disableKeyBasedMetadataWriteAccess property enabled.

You are developing an app named App1 that will be used by a user named DevUser1 to create containers in account1. DevUser1 has a non-privileged user account in the Azure Active Directory (Azure AD) tenant.

You need to ensure that DevUser1 can use App1 to create containers in account1.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Grant permissions to create containers by using:

Account keys
Resource tokens
Role-based access control (RBAC)

Create containers by using the:

Azure AD Graph API
Azure Resource Manager API
SQL (Core) API

Actual exam question from Microsoft's DP-420

Question #: 2

Topic #: 1

[All DP-420 Questions]

HOTSPOT -

You have an Azure Cosmos DB Core (SQL) account that has a single write region in West Europe.

You run the following Azure CLI script.

- az cosmosdb update -n \$accountName -g \$resourceGroupName \
 - --locations regionName='West Europe' failoverPriority=0 isZoneRedundant-False \
 - --locations regionName='North Europe' failoverPriority=1 isZoneRedundant-False
- az cosmosdb failover-priority-change -n \$accountName -g \$resourceGroupName \
 - --failover-policies 'North Europe=0' 'West Europe=1'

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

After running the script, there will be an instance of Azure Cosmos DB in North Europe that is writable

After running the script, the Azure Cosmos DB instance in West Europe will be writable

The cost of the Azure Cosmos DB account is unaffected by running the script

O

COURSES

FORUM

```
Actual exam question from Microsoft's DP-420
Question #: 3
Topic #: 1
[All DP-420 Questions]
```

You are developing an application that will use an Azure Cosmos DB Core (SQL) API account as a data source.

You need to create a report that displays the top five most ordered fruits as shown in the following table.

| Name | Туре | Orders |
|--------|---------------|--------|
| apple | fruit | 1,000 |
| orange | fruit | 600 |
| banana | fruit, exotic | 400 |
| plum | fruit | 300 |
| mango | fruit, exotic | 200 |

```
A collection that contains aggregated data already exists. The following is a sample document:
 {
    "name": "apple",
    "type": ["fruit", "exotic"]
    "orders": 10000
 }
Which two queries can you use to retrieve data for the report? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.
A.
 SELECT TOP i.name, i.types, i.orders
 FROM items i
 WHERE EXISTS (SELECT VALUE t FROM t IN i.types WHERE t.name = 'fruit')
 ORDER BY i.orders, i.types
B.
 SELECT TOP i.name, i.types, i.orders
 FROM items i
 WHERE EXISTS (SELECT VALUE t FROM t IN i.types WHERE t.name = 'fruit')
 ORDER BY i.orders DESC
C.
 SELECT TOP i.name, i.types, i.orders
 FROM items i
 WHERE EXISTS (SELECT VALUE t FROM t IN i.types WHERE t.name = 'fruit')
 ORDER BY i.types DESC
D.
 SELECT TOP i.name, i.types, i.orders
 FROM items i
 WHERE ARRAY CONTAINS (i.types, {name: 'fruit'})
 ORDER BY i.orders DESC
```

Actual exam question from Microsoft's DP-420

Question #: 4

Topic #: 1

[All DP-420 Questions]

HOTSPOT -

You have a database in an Azure Cosmos DB Core (SQL) API account.

You plan to create a container that will store employee data for 5,000 small businesses. Each business will have up to 25 employees. Each employee item will have an emailAddress value.

You need to ensure that the emailAddress value for each employee within the same company is unique.

To what should you set the partition key and the unique key? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

| Partition key | ▼ | | |
|---------------|---|--|--|
| | companyId companyId+emailAddress emailAddress employeeId | | |
| Unique key | companyId emailAddress employeeId | | |

Question #: 5

Topic #: 1

[All DP-420 Questions]

HOTSPOT -

You have a container named container1 in an Azure Cosmos DB Core (SQL) API account. The container1 container has 120 GB of data.

The following is a sample of a document in container1.

```
"customerId": "5425",
   "orderId": "9d7816e6-f401-42ba-ad05-0e03de35c0b8",
   "orderDate": "2019-05-03",
   "orderDetails": []
```

The orderld property is used as the partition key.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements

Yes

No

If you run the following query, the query will run as a cross-partition query





SELECT * FROM c where c.orderDate = "2019-05-03"

If you run the following query, the query will run as a cross-partition query





SELECT * FROM c
where c.customerId = "5425"

If you run the following query, the query will run as a cross-partition query





SELECT * FROM c
where c.orderDate = "2019-05-03" and
c.orderId = "9d7816e6-f401-42ba-ad05-0e03de35c0b8"

IAC AA

Actual exam question from Microsoft's DP-420

Question #: 6

Topic #: 1

[All DP-420 Questions]

You are designing an Azure Cosmos DB Core (SQL) API solution to store data from IoT devices. Writes from the devices will be occur every second. The following is a sample of the data.

```
"id": "03c1ca5a-db18-4231-908f-09a9bc7a7c3e",
    "deviceManufacturer": "Contoso, Ltd",
    "deviceId": "f460df85-799f-4d58-b051-67561b4993c6",
    "timestamp": "2021-09-19T13:47:45",
    "sensor1Value": true,
    "sensor2Value": "75",
    "sensor3Value": "4554",
    "sensor4Value": "454",
    "sensor5Value": "42128"
}
```

You need to select a partition key that meets the following requirements for writes:

- Minimizes the partition skew
- Avoids capacity limits
- Avoids hot partitions

What should you do?

- A. Use timestamp as the partition key.
- B. Create a new synthetic key that contains deviceld and sensor1Value.
- C. Create a new synthetic key that contains deviceld and deviceManufacturer.
- D. Create a new synthetic key that contains deviceld and a random number.

Question #: 7

Topic #: 1

[All DP-420 Questions]

You maintain a relational database for a book publisher. The database contains the following tables.

| Name | Column | |
|---------------|------------------------|--|
| Author | authorId (primary key) | |
| | fullname | |
| | address | |
| | contactinfo | |
| Book | bookId (primary key) | |
| | isbn | |
| | title | |
| | genre | |
| BookauthorInk | authorId (foreign | |
| | key) | |
| | bookId (foreign key) | |

The most common query lists the books for a given authorld.

You need to develop a non-relational data model for Azure Cosmos DB Core (SQL) API that will replace the relational database. The solution must minimize latency and read operation costs.

What should you include in the solution?

- A. Create a container for Author and a container for Book. In each Author document, embed bookld for each book by the author. In each Book document embed authorId of each author.
- B. Create Author, Book, and Bookauthorlnk documents in the same container.
- C. Create a container that contains a document for each Author and a document for each Book. In each Book document, embed authorld.
- D. Create a container for Author and a container for Book. In each Author document and Book document embed the data from Bookauthorlnk.

Show Suggested Answer

Question #: 9

Topic #: 1

[All DP-420 Questions]

You need to implement a trigger in Azure Cosmos DB Core (SQL) API that will run before an item is inserted into a container.

Which two actions should you perform to ensure that the trigger runs? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Append pre to the name of the JavaScript function trigger.
- B. For each create request, set the access condition in RequestOptions.
- C. Register the trigger as a pre-trigger.
- D. For each create request, set the consistency level to session in RequestOptions.
- E. For each create request, set the trigger name in RequestOptions.

Show Suggested Answer

FORUM

Actual exam question from Microsoft's DP-420

Question #: 10

Topic #: 1

[All DP-420 Questions]

HOTSPOT -

You have a container in an Azure Cosmos DB Core (SQL) API account.

You need to use the Azure Cosmos DB SDK to replace a document by using optimistic concurrency.

What should you include in the code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

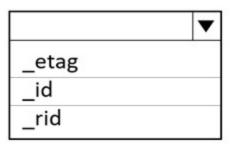
Hot Area:

Answer Area

RequestOptions property to set:

AccessCondition
ConsistencyLevel
SessionToken

Document property that will be compared:



Actual exam question from Microsoft's DP-420

Question #: 11

Topic #: 1

[All DP-420 Questions]

HOTSPOT -

You are creating a database in an Azure Cosmos DB Core (SQL) API account. The database will be used by an application that will provide users with the ability to share online posts. Users will also be able to submit comments on other users' posts.

You need to store the data shown in the following table.

| Туре | Description |
|-----------|--|
| Users | Information about a user who will use the application |
| Posts | Text of up to 1,000 characters that a user will share with other users |
| Comments | Text of up to 280 characters that users will submit as a comment on a post |
| Interests | Information about a user's interests |

The application has the following characteristics:

- Users can submit an unlimited number of posts.
- The average number of posts submitted by a user will be more than 1,000.
- Posts can have an unlimited number of comments from different users.
- The average number of comments per post will be 100, but many posts will exceed 1,000 comments.
- Users will be limited to having a maximum of 20 interests.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

| Statements | Yes | No |
|---|-----|----|
| If you embed the posts data into the users data instead of creating a separate document for each post, you will increase the write operation costs for new posts | 0 | 0 |
| If you embed the comments data into the posts data instead of creating a separate document for each comment you will increase the write operation costs for new comments | 0 | 0 |
| If you embed the interests data into the users data instead of creating a separate document for each interest, you will increase the read operation costs for displaying the users and their associated interests | 0 | 0 |

IN E VV

Actual exam question from Microsoft's DP-420

Question #: 12

Topic #: 1

[All DP-420 Questions]

DRAG DROP -

You have an app that stores data in an Azure Cosmos DB Core (SQL) API account The app performs queries that return large result sets.

You need to return a complete result set to the app by using pagination. Each page of results must return 80 items.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions Answer Area

Configure MaxItemCount in QueryRequestOptions

Run the query and provide a continuation token

Configure MaxBufferedItemCount in QueryRequestOptions

Append the results to a variable

Run the query and increment MaxItemCount



Q

Actual exam question from Microsoft's DP-420

Question #: 13

Topic #: 1

[All DP-420 Questions]

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals.

Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Cosmos DB Core (SQL) API account named account 1 that uses autoscale throughput.

You need to run an Azure function when the normalized request units per second for a container in account1 exceeds a specific value.

Solution: You configure an Azure Monitor alert to trigger the function.

Does this meet the goal?

A. Yes

B. No

Show Suggested Answer

CONTACT

Q

Actual exam question from Microsoft's DP-420

Question #: 14

Topic #: 1

[All DP-420 Questions]

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Cosmos DB Core (SQL) API account named account 1 that uses autoscale throughput.

You need to run an Azure function when the normalized request units per second for a container in account1 exceeds a specific value.

Solution: You configure the function to have an Azure CosmosDB trigger.

Does this meet the goal?

- A. Yes
- B. No

Show Suggested Answer

CONTACT

Q

Actual exam question from Microsoft's DP-420

Question #: 15

Topic #: 1

[All DP-420 Questions]

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Cosmos DB Core (SQL) API account named account 1 that uses autoscale throughput.

You need to run an Azure function when the normalized request units per second for a container in account1 exceeds a specific value.

Solution: You configure an application to use the change feed processor to read the change feed and you configure the application to trigger the function.

Does this meet the goal?

A. Yes

B. No

Show Suggested Answer

IN E W

Actual exam question from Microsoft's DP-420

Question #: 16

Topic #: 1

[All DP-420 Questions]

You have a database named db1 in an Azure Cosmos DB Core (SQL) API account.

You are designing an application that will use db1.

In db1, you are creating a new container named coll1 that will store online orders.

The following is a sample of a document that will be stored in coll1.

```
"customerId": "bba6fe24-6d97-4935-8d58-36baa4b8a0e1",
"orderId": "9d7816e6-f401-42ba-ad05-0e03de35c0b8",
"orderDate": "2021-09-29",
"orderDetails": []
```

The application will have the following characteristics:

- New orders will be created frequently by different customers.
- Customers will often view their past order history.

You need to select the partition key value for coll1 to support the application. The solution must minimize costs.

To what should you set the partition key?

- A. orderld
- B. customerld
- C. orderDate
- D. id

Actual exam question from Microsoft's DP-420

Question #: 17

Topic #: 1

[All DP-420 Questions]

You have a container in an Azure Cosmos DB Core (SQL) API account that stores data about orders.

The following is a sample of an order document.

```
"orderId": "d4a9179b-5ead-43a3-b851-add9a71ac4b6",
    "customerId": "f6e39103-bdc7-4346-9cfb-45daa4b2becf",
    "orderDate": "2021-09-29",
    "orderItems": [...],
    "total": 12345
```

Documents are up to 2 KB.

You plan to receive one million orders daily.

Customers will frequently view their past order history.

You are the evaluating whether to use orderDate as the partition key.

What are two effects of using orderDate as the partition key? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. You will exceed the maximum number of partition key values
- B. You will exceed the maximum storage per partition
- C. There will always be a hot partition
- D. Queries will run cross-partition

IN E W

Actual exam question from Microsoft's DP-420

Question #: 18

Topic #: 1

[All DP-420 Questions]

You have a container in an Azure Cosmos DB Core (SQL) API account. The container stores data about families. Data about parents, children, and pets are stored as separate documents.

Each document contains the address of each family. Members of the same family share the same partition key named familyld.

You need to update the address for each member of the same family that share the same address. The solution must meet the following requirements:

- ⇒ Be atomic, consistent, isolated, and durable (ACID).
- Provide the lowest latency.

What should you do?

- A. Update the document of each family member separately by using a patch operation
- B. Update the document of each family member separately and set the consistency level to strong
- C. Update the document of each family member by using a transactional batch operation

Show Suggested Answer

INEW

```
Actual exam question from Microsoft's DP-420
```

```
Question #: 19
```

Topic #: 1

[All DP-420 Questions]

You are designing an Azure Cosmos DB Core (SQL) API solution to store data from IoT devices. Writes from the devices will be occur every second. The following is a sample of the data.

```
"id" : "03c1ca5a-db18-4231-908f-09a9bc7a7c3e",
   "deviceManufacturer" : "Contoso, Ltd",
   "deviceId" : "f460df85-799f-4d58-b051-67561b4993c6",
   "timestamp" : "2021-09-19T13:47:45",
   "sensor1Value" : true,
   "sensor2Value" : "75",
   "sensor3Value" : "4554",
   "sensor4Value" : "454",
   "sensor5Value" : "42128"
```

You need to select a partition key that meets the following requirements for writes:

- Minimizes the partition skew
- Avoids capacity limits
- Avoids hot partitions

What should you do?

- A. Create a new synthetic key that contains deviceld and timestamp
- B. Use timestamp as the partition key
- C. Use deviceManufacturer as the partition key
- D. Use sensor1Value as the partition key

IAE AA

Actual exam question from Microsoft's DP-420

Question #: 20

Topic #: 1

[All DP-420 Questions]

You need to create a data store for a directory of small and medium-sized businesses (SMBs). The data store must meet the following requirements:

- Store companies and the users employed by them. Each company will have less than 1,000 users.
- Some users have data that is greater than 2 KB.
- Associate each user to only one company.
- Provide the ability to browse by company.
- Provide the ability to browse the users by company.
- Whenever a company or user profile is selected, show a details page for the company and all the related users.
- Be optimized for reading data.

Which design should you implement to optimize the data store for reading data?

- A. In a directory container, create a document for each company and a document for each user. Use the company ID as the partition key.
- B. Create a user container that uses the user ID as the partition key and a company container that uses the company ID as the partition key. Add the company ID to each user document.
- C. In a user container, create a document for each user. Embed the company into each user document. Use the user ID as the partition key.
- D. In a company container, create a document for each company. Embed the users into company documents. Use the company ID as the partition key.

IN E VV

FORUM

Actual exam question from Microsoft's DP-420

Question #: 21

Topic #: 1

[All DP-420 Questions]

You are building an application that will store data in an Azure Cosmos DB Core (SQL) API account. The account uses the session default consistency level. The account is used by five other applications. The account has a single read-write region and 10 additional read region.

Approximately 20 percent of the items stored in the account are updated hourly.

Several users will access the new application from multiple devices.

You need to ensure that the users see the same item values consistently when they browse from the different devices. The solution must NOT affect the other applications.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Set the default consistency level to eventual
- B. Associate a session token to the device
- C. Use implicit session management when performing read requests
- D. Provide a stored session token when performing read requests
- E. Associate a session token to the user account

INEW

Q

```
Actual exam question from Microsoft's DP-420
Question #: 22
Topic #: 1
[All DP-420 Questions]
HOTSPOT -
You have a container that stores data about families.
The following is a sample document.
      "lastName": "Cartwright",
       "parents":[
            "firstname": "Elvira",
           "role": "mother",
            "age":64
         },
            "firstname": "Randolph",
           "role":"father",
            "age":67
      ],
      "children":[
            "grade":5,
            "pets":[
            "firstname": "Dana",
            "age":15,
            "gender": "female"
         },
            "grade":7,
            "pets":[
              {
                 "name": "Bob",
                 "type": "guinea pig"
              },
You run the following query against the container.
 SELECT
      ch.name ?? ch.firstName AS childName,
      f.parents
      ARRAY LENGTH (ch.pets) ?? 0 AS numberOfPets,
      ch.pets
 FROM c AS f
 JOIN ch IN f.children
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.
```

Answer Area

Hot Area:

| Statements | Yes | No |
|--|-----|----|
| Children who do not have parents defined will appear on the list | 0 | 0 |
| Children who have more than one pet will appear on the list multiple times | 0 | 0 |
| Children who do not have pets defined will appear on the list | 0 | 0 |

Q

Actual exam question from Microsoft's DP-420

Question #: 23

Topic #: 1

[All DP-420 Questions]

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals.

Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure Cosmos DB Core (SQL) API account named account1 that uses autoscale throughput.

You need to run an Azure function when the normalized request units per second for a container in account1 exceeds a specific value.

Solution: You configure Azure Event Grid to send events to the function by using an Event Grid trigger in the function.

Does this meet the goal?

A. Yes

B. No

Show Suggested Answer

NEW

Actual exam question from Microsoft's DP-420

Question #: 24

Topic #: 1

[All DP-420 Questions]

You have an application named App1 that reads the data in an Azure Cosmos DB Core (SQL) API account. App1 runs the same read queries every minute. The default consistency level for the account is set to eventual.

You discover that every query consumes request units (RUs) instead of using the cache.

You verify the IntegratedCacheiteItemHitRate metric and the IntegratedCacheQueryHitRate metric. Both metrics have values of 0.

You verify that the dedicated gateway cluster is provisioned and used in the connection string.

You need to ensure that App1 uses the Azure Cosmos DB integrated cache.

What should you configure?

- A. the indexing policy of the Azure Cosmos DB container
- B. the consistency level of the requests from App1
- C. the connectivity mode of the App1 CosmosClient
- D. the default consistency level of the Azure Cosmos DB account

Show Suggested Answer

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Actual exam question from Microsoft's DP-420

Question #: 25

Topic #: 1

[All DP-420 Questions]

```
HOTSPOT -
You provision Azure resources by using the following Azure Resource Manager (ARM) template.
    "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",
    "contentVersion": "1.0.0.0",
    "parameters": {
        "db": {
             "defaultValue": "[resourceId('Microsoft.DocumentDB/databaseAccounts', 'prod1')],
             "type": "String"
        },
        "sms": {
             "defaultValue": "[resourceId(microsoft.insights/actionGroups', 'sms')]
             "type": "String"
    "variables": {},
    "resources": [
        {
             "type": "microsoft.insights/actionGroups",
             "apiVersion": "2019-06-01",
             "name": "sms",
             "location": "Global",
             "properties": {
                  "groupShortName": "Send message",
                  "enabled": true,
                  "emailReceivers": [],
                  "smsReceivers": [
                      {
                          "name": "Action-SMS",
                          "countryCode": "44",
                          "phoneNumber": "7111111111"
                      }
                  ]
            }
        },
            "type": "microsoft.insights/activityLogAlerts",
             "apiVersion": "2020-10-01",
             "name": "Alert1",
             "location": "Global",
             "dependsOn": ["sms"],
             "properties": {
                 "scopes": [ "[parameters('db')]" ],
                 "condition": {
                     "allof": [
                         {
                              "field": "category",
                              "equals": "Administrative"
                         },
                              "field": "operationName",
                              "equals": "Microsoft.DocumentDB/databaseAccounts/regenerateKey/action"
                     ]
                 },
                 "actions": {
                     "actionGroups": [
                              "actionGroupId": "[parameters('sms')]",
                              "webhookProperties": {}
                 "enabled": true
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

| Statements | Yes | No | |
|--|-----|------------|--|
| The alert will be triggered when an Azure Cosmos DB key is used | 0 | 0 | |
| Two alert actions will be performed when the alert is triggered | 0 | 0 | |
| The alert will be triggered when an item that has a new partition key value is created | 0 | \bigcirc | |

Question #: 26

Topic #: 1

[All DP-420 Questions]

You plan to store order data in an Azure Cosmos DB Core (SQL) API account. The data contains information about orders and their associated items.

You need to develop a model that supports order read operations. The solution must minimize the number of requests.

What should you do?

- A. Create a database for orders and a database for order items.
- B. Create a single database that contains a container for orders and a container for order items.
- C. Create a single database that contains one container. Store orders and order items in separate documents in the container.
- D. Create a single database that contains one container. Create a separate document for each order and embed the order items into the order documents.

Show Suggested Answer

FORUM

Actual exam question from Microsoft's DP-420

Question #: 27

Topic #: 1

[All DP-420 Questions]

You have a container in an Azure Cosmos DB Core (SQL) API account. The container stores telemetry data from IoT devices. The container uses telemetryId as the partition key and has a throughput of 1,000 request units per second (RU/s). Approximately 5,000 IoT devices submit data every five minutes by using the same telemetryId value.

You have an application that performs analytics on the data and frequently reads telemetry data for a single IoT device to perform trend analysis.

The following is a sample of a document in the container.

```
"id" : "9ccf1906-2a30-4dc0-9644-2185f5dcbbd7",
   "deviceId" : "bba6fe24-6d97-4935-8d58-36baa4b8a0e1",
   "telemetryId" : "9d7816e6-f401-42ba-ad05-0e03de35c0b8",
   "date" : "2019-05-03",
   "time" : "13:05",
   "temp" : "21"
```

You need to reduce the amount of request units (RUs) consumed by the analytics application.

What should you do?

- A. Decrease the offerThroughput value for the container.
- B. Increase the offerThroughput value for the container.
- C. Move the data to a new container that uses a partition key of deviceld.
- D. Move the data to a new container that uses a partition key of temp.

Actual exam question from Microsoft's DP-420

Question #: 28

Topic #: 1

[All DP-420 Questions]

HOTSPOT

-

You plan to use a multi-region Azure Cosmos DB Core (SQL) API account to store data for a new application suite. The suite contains the applications shown in the following table.

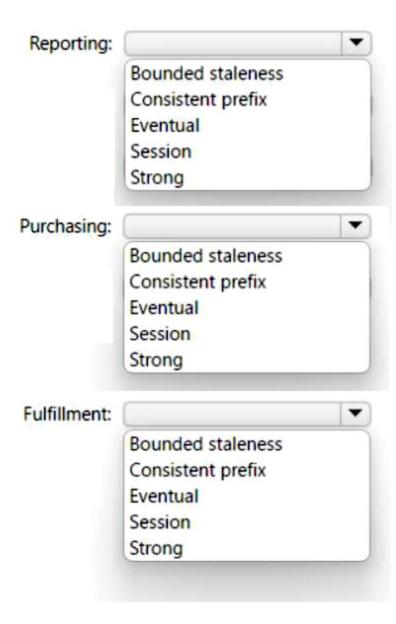
| Name | Requirement |
|-------------|--|
| Reporting | Must be able to track the total order counts within five minutes of orders being placed. |
| Purchasing | Must guarantee that the latest committed stock quantities are used always. |
| Fulfillment | Must ensure that orders are read in the order in which they are placed. |

Each application should use the weakest consistency level possible.

Which consistency level should you configure for each application? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area



Question #: 29

Topic #: 1

[All DP-420 Questions]

HOTSPOT

_

You are designing a data model for an Azure Cosmos DB Core (SQL) API account.

What are the partition limits for request units per second (RU/s) and storage? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Maximum RU/s per physical partition:

400
5,000
10,000
Unlimited

Maximum storage per logical partition:

20 GB 50 GB

Unlimited

Question #: 30

Topic #: 1

[All DP-420 Questions]

HOTSPOT

_

You have an Azure Cosmos DB container named container1.

You need to insert an item into container1. The solution must ensure that the item is deleted automatically after two hours.

How should you complete the item definition? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```
{
 "id": "1",
 "customerOrderNumber": "XA2342093",
 "orderDate": "2022-04-22T09:34:42",
 "customerNumber": 234223,
 "orderItems":
 [
    {
        "id": 1,
        "quantity": 12,
        "productCode": "B234BLK"
    }
 ]
"_attachments": "attachments/",
                               -1
   defaultTimeToLive
                               2
   ttl
                               120
   _ttl
                               7200
 "_ts": 1551322496
```

Question #: 31

Topic #: 1

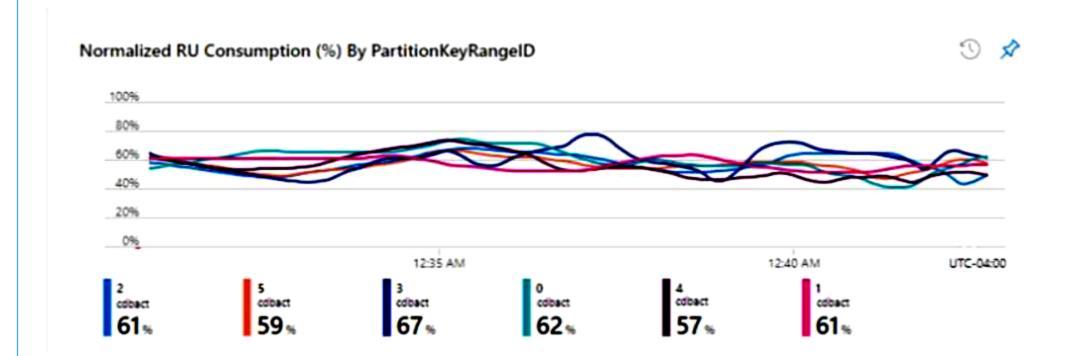
[All DP-420 Questions]

H0TSP0T

-

You have a container in an Azure Cosmos DB Core (SQL) API account. The database that has a manual throughput of 30,000 request units per second (RU/s).

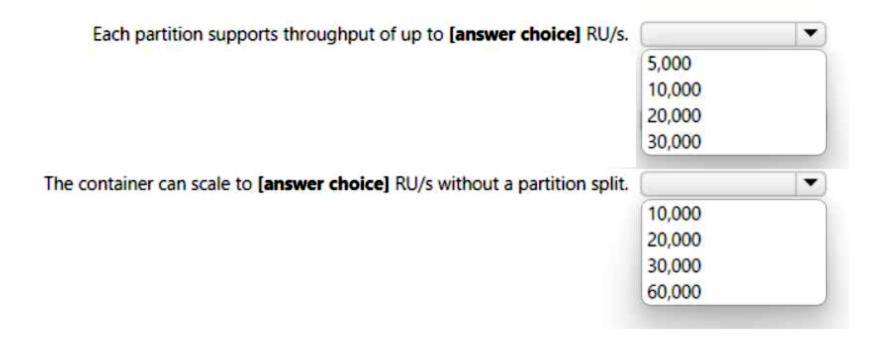
The current consumption details are shown in the following chart.



Use the drop-down menus to select the answer choice that answers each question based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Answer Area



IN E W

Actual exam question from Microsoft's DP-420

Question #: 32

Topic #: 1

[All DP-420 Questions]

You have an Azure Cosmos DB database.

You plan to create a new container named container1 that will store product data and product category data and will primarily support read requests.

You need to configure a partition key for container1. The solution must meet the following requirements:

- · Minimize the size of the partition.
- · Minimize maintenance effort.

Which two characteristics should you prioritize? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. unique
- B. high cardinality
- C. low cardinality
- D. static

IAC AA

Actual exam question from Microsoft's DP-420

Question #: 33

Topic #: 1

[All DP-420 Questions]

HOTSPOT

-

You have an Azure Cosmos DB account named account1 that has a default consistency level of session.

You have an app named App1.

You need to ensure that the read operations of App1 can request either bounded staleness or consistent prefix consistency.

What should you modify for each consistency level? To answer, select the appropriate options in the answer area.

Answer Area

Bounded staleness:

The account level options
The database level options
The request level options

Consistent prefix:

The account level options
The database level options
The request level options

Question #: 34

Topic #: 1

[All DP-420 Questions]

DRAG DROP

_

You are designing three apps named App1, App2, and App3. Each app will use a separate Azure Cosmos DB for NoSQL account. The apps have the following consistency requirements:

- · App1: Reads must always return the most recent committed version of an item, where the commit occurred during the same session.
- App2: Reads must always return the most recent committed version of an item, even if the commit occurred during another session.
- · App3: Write latency must be minimized and data staleness can be tolerated.

You need to recommend a default consistency level for each Azure Cosmos DB for NoSQL account. The solution must minimize concurrency.

What should you recommend for the account of each app? To answer, drag the appropriate consistency levels to the correct apps. Each consistency level may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

| Consistency levels | | Answer Area |
|--------------------|-------|-------------|
| Bounded Staleness | | |
| Consistent Prefix | App1: | |
| Eventual | App2: | |
| Session | App3: | |
| Strong | | |

a

NEW

Actual exam question from Microsoft's DP-420

Question #: 35

Topic #: 1

[All DP-420 Questions]

You have an Azure Cosmos DB for NoSQL account configured for global distribution across four regions.

At connection time, the SQL SDK needs to identify the optimal endpoint for reading and writing.

Which two factors can influence the SDK? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. the consistency level in RequestOptions
- B. regional latency
- C. the default consistency level
- D. the PreferredLocations configuration
- E. a region being available

Question #: 36

Topic #: 1

[All DP-420 Questions]

You have an Azure Cosmos DB for NoSQL account named account1.

You need to create a container named Container1 in account1 by using the Azure Cosmos DB .NET SDK. The solution must ensure that the items in Container1 never expire.

What should you set?

- A. TimeToLivePropertyPath to null
- B. TimeToLivePropertyPath to 0
- C. DefaultTimeToLive to null
- D. DefaultTimeToLive to -1

Show Suggested Answer

^

Question #: 37

Topic #: 1

[All DP-420 Questions]

You are designing an Azure Cosmos DB for NoSQL solution to store data from IoT devices. Writes from the devices will occur every second. Data will be retained indefinitely.

The following is a sample of the data.

```
"id": "03c1ca5a-db18-4231-908f-09a9bc7a7c3e",
   "deviceManufacturer": "Contoso, Ltd",
   "deviceId": "f460df85-799f-4d58-b051-67561b4993c6",
   "timestamp": "2021-09-19T13:47:45",
   "sensor1Value": true,
   "sensor2Value": "75",
   "sensor3Value": "4554",
   "sensor4Value": "454",
   "sensor5Value": "42128"
}
```

You need to select a partition key that meets the following requirements for writes:

- · Minimizes the partition skew
- · Avoids capacity limits
- Avoids hot partitions

What should you do?

- A. Use deviceManufacturer as the partition key.
- B. Create a new synthetic key that contains deviced and timestamp.
- C. Create a new synthetic key that contains deviceld and deviceManufacturer.
- D. Use deviceld as the partition key.

Question #: 38

Topic #: 1

[All DP-420 Questions]

HOTSPOT

-

You have an Azure Cosmos DB for NoSQL container named Contacts that is configured as shown in the following exhibit.

* Container id ①

contacts

* Indexing

Automatic Off

All properties in your documents will be indexed by default for flexible and efficient queries. Learn more

Partition key ①

/companyID

Unique keys 🕕

/familyName,/givenNames



Contacts contains the items shown in the following table.

| companyID | familyName | givenNames | emailAddress |
|-----------|------------|------------|--------------------|
| 1 | Rogers | Terry John | terryj@contoso.com |
| 1 | Rogers | null | rogers@contoso.com |

To Contacts, you plan to Insert the items shown in the following table.

| Item | companyID | familyName | givenNames | emailAddress |
|------|-----------|------------|------------|---------------------|
| 1 | 1 | Rogers | terry john | terryj@contoso.com |
| 2 | 1 | Rogers | null | rogers2@contoso.com |
| 3 | 2 | Rogers | Terry John | terryj@contoso.com |

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Answer Area

| Statements | Yes | No |
|------------------------|------------|---------|
| Item 1 can be inserted | 0 | 0 |
| Item 2 can be inserted | \bigcirc | 0 |
| Item 3 can be inserted | \circ | \circ |

Actual exam question from Microsoft's DP-420 Question #: 39

Topic #: 1

[All DP-420 Questions]

HOTSPOT

-

You plan to create an Azure Cosmos DB container named account that will contain items in the following format.

You need to define a query that will return the ids of all accounts that have ever recorded a negative value for balance.

How should you complete the query? To answer select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Question #: 40

Topic #: 1

[All DP-420 Questions]

H0TSP0T

-

You have the Azure Cosmos DB for NoSQL containers shown in the following table.

| Name | DefaultTimeToLive |
|------------|-------------------|
| container1 | -1 |
| container2 | null |
| container3 | 60 |

You have the items shown in the following table.

| Name | Container | TimeToLive |
|-------|------------|------------|
| item1 | container1 | 60 |
| item2 | container2 | 10 |
| item3 | container3 | -1 |

When will each item expire? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

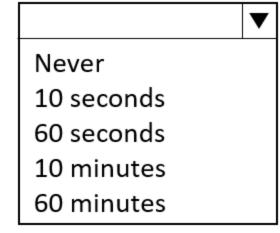


Never
10 seconds
60 seconds
10 minutes
60 minutes

Item2:



Item3:



Question #: 41

Topic #: 1

[All DP-420 Questions]

Your company develops an application named App1 that uses the Azure Cosmos DB SDK and the Eventual consistency level.

App1 queries an Azure Cosmos DB for NoSQL account named account1.

You need to identify which consistency level to assign to App1 to meet the following requirements:

- · Maximize the throughput of the queries generated by App1 without increasing the number of request units currently used by the queries.
- · Provide the highest consistency guarantees.

Which consistency level should you identify?

- A. Strong
- B. Bounded Staleness
- C. Session
- D. Consistent Prefix

Actual exam question from Microsoft's DP-420

Question #: 42

Topic #: 1

[All DP-420 Questions]

```
H0TSP0T
```

-

You plan to create an Azure Cosmos DB for NoSQL container that will contain items in the following format.

You need to define a query that will return the userid values of all the users who purchased an item that has a sku value of 11111.

How should you compete the query? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```
FROM c

WHERE EXISTS(

SELECT VALUE n

FROM

C.items
c.items.sku
n IN c.items

WHERE

n
n.items.sku
n.sku

richtems

= "11111"
```

Actual exam question from Microsoft's DP-420

Question #: 43

Topic #: 1

[All DP-420 Questions]

H0TSP0T

-

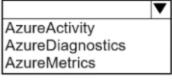
You have an Azure subscription that contains an Azure Cosmos DB for NoSQL account named account1 and a Log Analytics workspace named Workspace1. Workspace1 stores the logs of account1.

You need to identify which operations used the most request units per second (RU/s) during the last 24 hours.

How should you complete the query? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

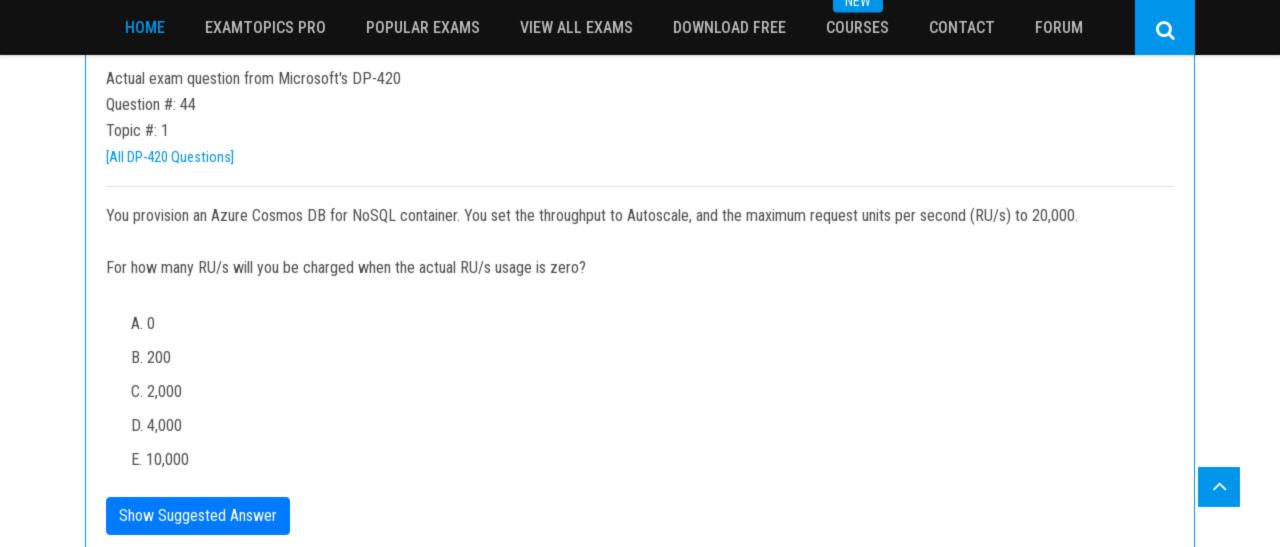


```
where ResourceProvider=="MICROSOFT.DOCUMENTDB" and Category==

"ControlPlaneRequests"
"DataPlaneRequests"
"PartitionKeyStatistics"
```

| summarize max(responseLength_s), max(requestLength_s), max(requestCharge_s), count = count() by OperationName, requestResourceType s, userAgent s, collectionRid s

a



Question #: 46

Topic #: 1

[All DP-420 Questions]

HOTSPOT

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You have an Azure Cosmos DB for NoSQL container that contains the following item.

You need to update the OrderQty value to 5 by using a patch operation.

How should you complete the JSON Patch document? To answer, select the appropriate options in the answer area.

Answer Area

IA E AA

Actual exam question from Microsoft's DP-420

Question #: 47

Topic #: 1

[All DP-420 Questions]

You plan to create an Azure Cosmos DB for NoSQL account that will have a single write region and three read regions.

You need to set the consistency level for the account. The solution must meet the following requirements:

- In the write region, writes must replicate synchronously across at least three replicas.
- In the read regions, reads must see writes in order for transactional batches.
- · Throughput for reads and writes must be maximized.

Which consistency level should you select?

- A. Consistent Prefix
- B. Bounded Staleness
- C. Eventual
- D. Strong

Actual exam question from Microsoft's DP-420

Question #: 1

Topic #: 2

[All DP-420 Questions]

DRAG DROP -

You have an Azure Cosmos DB Core (SQL) API account that is configured for multi-region writes. The account contains a database that has two containers named container1 and container2.

The following is a sample of a document in container1:

```
"customerId": 1234,
"firstName": "John",
"lastName": "Smith",
"policyYear": 2021
}
The following is a sample of a document in container2:
{
"gpsId": 1234,
"latitude": 38.8951,
"longitude": -77.0364
```

You need to configure conflict resolution to meet the following requirements:

- For container1 you must resolve conflicts by using the highest value for policyYear.
- For container2 you must resolve conflicts by accepting the distance closest to latitude: 40.730610 and longitude: -73.935242.
- Administrative effort must be minimized to implement the solution.

What should you configure for each container? To answer, drag the appropriate configurations to the correct containers. Each configuration may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Configurations

Last Write Wins (default) mode

Merge Procedures (custom) mode

An application that reads from the conflicts feed

| Αı | ns | w | er | Α | rea |
|----|----|---|----|---|-----|
|----|----|---|----|---|-----|

Container1:

Container2:

Actual exam question from Microsoft's DP-420

Question #: 2

Topic #: 2

[All DP-420 Questions]

HOTSPOT -

You have an Azure Cosmos DB Core (SQL) API account named storage1 that uses provisioned throughput capacity mode.

The storage1 account contains the databases shown in the following table.

| Name | Throughput | Max request units per second (RU/s) | Geo- redundancy | Multi- region writes | Number of regions |
|------|------------|---|--------------------|----------------------------|-------------------------|
| db1 | Autoscale | 5,000 | Disabled | Disabled | 1 |
| db2 | Autoscale | 8,000 | Enabled | Enabled | 3 |

The databases contain the containers shown in the following table.

| Name | Database | Throughput |
|------|----------|--|
| cn01 | db1 | Container - autoscale maximum RU/s of 10,000 |
| cn02 | db1 | Database |
| cn03 | db1 | Database |
| cn04 | db1 | Database |
| cn05 | db1 | Database |
| cn11 | db2 | Database |
| cn12 | db2 | Database |
| cn13 | db2 | Database |
| cn14 | db2 | Database |
| cn15 | db2 | Database |
| cn16 | db2 | Database |
| cn17 | db2 | Database |
| cn18 | db2 | Database |

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

| Statements | Yes | No |
|---|-----|------------|
| At a minimum, you will be billed for 4,000 RU/s per hour for db1 | 0 | \bigcirc |
| The maximum throughput that can be consumed by cn11 is 400 RU/s | 0 | 0 |
| To db2, you can add a new container that uses database throughput | 0 | \bigcirc |

Actual exam question from Microsoft's DP-420

Question #: 3

Topic #: 2

[All DP-420 Questions]

HOTSPOT -

You have a database named telemetry in an Azure Cosmos DB Core (SQL) API account that stores IoT data. The database contains two containers named readings and devices.

Documents in readings have the following structure.

- ⊸ id
- □ deviceid
- □ timestamp
- □ ownerid
- □ measures (array)
- type
- value
- metricid

Documents in devices have the following structure.

- ⊸ id
- □ deviceid
- □ owner
- ownerid
- emailaddress
- name
- □ brand
- ⊸ model

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

| Statements | | N |
|------------|--|---|
| | | |

To return for all devices owned by a specific emailaddress, multiple queries must be performed

To return deviceid, ownerid, timestamp, and value for a specific metricid, a join must be performed

To return deviceid, ownerid, emailaddress, and model, a join must be performed

Question #: 4

Topic #: 2

[All DP-420 Questions]

The settings for a container in an Azure Cosmos DB Core (SQL) API account are configured as shown in the following exhibit.

Settings Indexing Policy

Time to Live

- Off
- On (no default)
- On

Geospatial Configuration

- Geography
- Geometry

Partition key

productName

Which statement describes the configuration of the container?

- A. All items will be deleted after one year.
- B. Items stored in the collection will be retained always, regardless of the items time to live value.
- C. Items stored in the collection will expire only if the item has a time to live value.
- D. All items will be deleted after one hour.

COURSES

IA C AA

FORUM

Question #: 5

Topic #: 2

[All DP-420 Questions]

You have an Azure Cosmos DB Core (SQL) API account named account1 that is configured for automatic failover. The account1 account has a single read-write region in West US and a read region in East US.

You run the following PowerShell command.

Update-AzCosmosDBAccountFailoverPriority -ResourceGroupName `rg1` -Name `account1` -FailoverPolicy @(`East US`, `West US`)

What is the effect of running the command?

- A. The account will be unavailable to writes during the change
- B. The provisioned throughput for account1 will increase
- C. The account will be configured for multi-region writes
- D. A manual failover will occur

Show Suggested Answer

^

Actual exam question from Microsoft's DP-420

Question #: 6

Topic #: 2

[All DP-420 Questions]

HOTSPOT -

You are developing an application that will connect to an Azure Cosmos DB Core (SQL) API account. The account has a single read-write region and one additional read region. The regions are configured for automatic failover.

The account has the following connection strings. (Line numbers are included for reference only.)

```
01 {
     "connectionStrings": [
02
03
04
         "connectionString":
05
         "AccountEndpoint=https://constosodbaccount.documents.azure.com:443/;
06
         AccountKey=MwUgRnGti4vErT2rfPPFdTFFyI9KyI9Kbe1RPGv7OQdHo6VZ2i45TcJzrd4J80zYxrEATzyZh0m1nJaNFA==;",
         "description": "Primary SQL Connection String"
07
80
       },
09
10
         "connectionString":
11
         "AccountEndpoint=https://constosodbaccount.documents.azure.com:443/;
         AccountKey=gfThRnGti4vErT2rfPPFdTFFyI43529Kbe1RPGv70QdHo6VZ2i45TcJzrd4J80zYxrfatzyZh0m1nJaNFA==;",
12
         "description": "Secondary SQL Connection String"
13
14
       },
15
       {
         "connectionString":
16
         "AccountEndpoint=https://constosodbaccount.documents.azure.com:443/;
17
18
         AccountKey=WGykBc1PHJoos6MdErT2rfPPFx9yI9Kbe1RPGv70QlIQwQNxq6QdOXjxgyLLebXBp8uJu7FyJy3Uv1vuK2A==;"
19
         "description": "Primary Read-Only SQL Connection String"
20
       },
21
22
         "connectionString":
         "AccountEndpoint=https://constosodbaccount.documents.azure.com:443/;
23
24
         AccountKey=k2DZIOoY4Jc7QeUJqVGH3csda6EyI9Kbe1RPGv7OQErT2rfPPFtbwTPfKAg19zVxC0MDNn8xPpQrednVYcQ==;",
25
         "description": "Secondary Read-Only SQL Connection String"
26
27
     ]
28 }
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

| Statements | Yes | No |
|---|-----|----|
| If the primary write region fails, applications that write to the database must use a different connection string to continue to use the service | 0 | 0 |
| The Primary Read-Only SQL Connection String and the Secondary Read-Only SQL Connection String will connect to different regions from an application running in the East US Azure region | 0 | 0 |
| Applications can choose from which region they read by setting the ${\tt PreferredLocations}$ property within their connection properties | 0 | 0 |

a

You have a global ecommerce application that stores data in an Azure Cosmos DB Core (SQL) API account. The account is configured for multi-region writes. You need to create a stored procedure for a custom conflict resolution policy for a new container. In the event of a conflict caused by a deletion, the deletion must always take priority.

Which parameter should you check in the stored procedure function?

- A. isTombstone
- B. conflictingItems
- C. existingItem
- D. incomingItem

Show Suggested Answer

SES CONTACT

FORUM

Q

Actual exam question from Microsoft's DP-420

Question #: 8

Topic #: 2

[All DP-420 Questions]

You have an Azure Cosmos DB Core (SQL) API account named account1 that supports an application named App1. App1 uses the consistent prefix consistency level.

You configure account1 to use a dedicated gateway and integrated cache.

You need to ensure that App1 can use the integrated cache.

Which two actions should you perform for App1? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Change the consistency level of requests to session.
- B. Change the account endpoint to http://account1.documents.azure.com.
- C. Change the account endpoint to http://account1.sqlx.cosmos.azure.com.
- D. Change the connection mode to direct.
- E. Change the consistency level of requests to strong.

Show Suggested Answer

^

Question #: 9

Topic #: 2

[All DP-420 Questions]

You have an Azure Cosmos DB Core (SQL) API account named account1 that has a single read-write region and one additional read region. Account1 uses the strong default consistency level.

You have an application that uses the eventual consistency level when submitting requests to account1.

How will writes from the application be handled?

- A. Writes will use the eventual consistency level.
- B. Azure Cosmos DB will reject writes from the application.
- C. Writes will use the strong consistency level.
- D. The write order is not guaranteed during replication.

Show Suggested Answer

Actual exam question from Microsoft's DP-420

Question #: 10

Topic #: 2

[All DP-420 Questions]

HOTSPOT

-

You have a multi-region Azure Cosmos DB account named account1 that has a default consistency level of strong.

You have an app named App1 that is configured to request a consistency level of session.

How will the read and write operations of App1 be handled? To answer, select the appropriate options in the answer area.

Answer Area

Write operations will:

Be applied only to the replica to which App1 is connected Write and replicate data to every region asynchronously Write and replicate data to every region synchronously

Read operations wil be performed by the replica:

To which App1 is connected
That has the lowest estimated latency to the client
That responds first

Question #: 11

Topic #: 2

[All DP-420 Questions]

You plan to create an Azure Cosmos DB account that will use the NoSQL API.

You need to create a grouping strategy for items that will be stored in the account. The solution must ensure that write and read operations on the items can be performed within the same transaction.

What should you use to group the items?

- A. logical partitions
- B. physical partitions
- C. databases
- D. containers

Show Suggested Answer

Question #: 12

Topic #: 2

[All DP-420 Questions]

You have an Azure Cosmos DB database that contains a container named container1. The container1 container is configured with a maximum of 20,000 RU/s and currently contains 240 GB of data.

You need to estimate the costs of container1 based on the current usage.

How many RU/s will be charged?

- A. 240
- B. 4,000
- C. 20,000
- D. 24,000

Show Suggested Answer

^

CONTACT

Actual exam question from Microsoft's DP-420

Question #: 13

Topic #: 2

[All DP-420 Questions]

HOTSPOT

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You have an Azure Cosmos DB for NoSQL account named account1 in a resource group named RG1. The Azure regions for account1 are shown in the following table.

| Name | Type |
|------------------------|-------|
| East US (eastus) | Write |
| Central US (centralus) | Read |
| West US (westus) | Read |

You need to fail over account1 from the East US region to the Central US region by using Azure Command-Line Interface (CLI).

How should you complete the command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

az cosmosdb

```
failover-priority-change locations network-rule update
```

--name account1 --resource-group rg1

```
--enable-automatic-failover
--failover-policies
failoverPriority=0
```

"centralus=0" "westus=1" "eastus=2"

Question #: 1

Topic #: 3

[All DP-420 Questions]

You have an Azure Cosmos DB Core (SQL) API account that uses a custom conflict resolution policy. The account has a registered merge procedure that throws a runtime exception.

The runtime exception prevents conflicts from being resolved.

You need to use an Azure function to resolve the conflicts.

What should you use?

- A. a function that pulls items from the conflicts feed and is triggered by a timer trigger
- B. a function that receives items pushed from the change feed and is triggered by an Azure Cosmos DB trigger
- C. a function that pulls items from the change feed and is triggered by a timer trigger
- D. a function that receives items pushed from the conflicts feed and is triggered by an Azure Cosmos DB trigger

Show Suggested Answer

 \cap

FORUM

Question #: 2

Topic #: 3

[All DP-420 Questions]

The following is a sample of a document in orders.

The orders container uses customerld as the partition key.

You need to provide a report of the total items ordered per month by item type. The solution must meet the following requirements:

- Ensure that the report can run as quickly as possible.
- ightharpoonup Minimize the consumption of request units (RUs).

What should you do?

- A. Configure the report to query orders by using a SQL query.
- B. Configure the report to query a new aggregate container. Populate the aggregates by using the change feed.
- C. Configure the report to query orders by using a SQL query through a dedicated gateway.
- D. Configure the report to query a new aggregate container. Populate the aggregates by using SQL queries that run daily.

Actual exam question from Microsoft's DP-420

Question #: 3

Topic #: 3

[All DP-420 Questions]

HOTSPOT -

You have three containers in an Azure Cosmos DB Core (SQL) API account as shown in the following table.

| Name | Database | Time to Live |
|------|----------|-----------------|
| cn1 | db1 | On (no default) |
| cn2 | db1 | Off |
| cn3 | db1 | On (no default) |

You have the following Azure functions:

- → A function named Fn1 that reads the change feed of cn1
- A function named Fn2 that reads the change feed of cn2
- → A function named Fn3 that reads the change feed of cn3

You perform the following actions:

- ⇒ Delete an item named item1 from cn1.
- Update an item named item2 in cn2.
- ightharpoonup For an item named item3 in cn3, update the item time to live to 3,600 seconds.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

| Statements | Yes | No |
|---|------------|------------|
| Fn1 will receive item1 from the change feed | 0 | 0 |
| Fn2 can check the $_{\tt etag}$ of item2 to see whether the item is an update or an insert | 0 | 0 |
| Fn3 will receive item3 from the change feed | \bigcirc | \bigcirc |

Actual exam question from Microsoft's DP-420

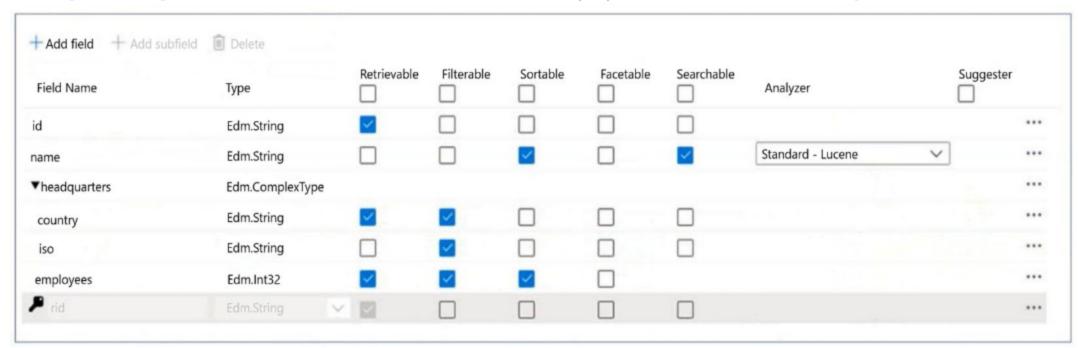
Question #: 4

Topic #: 3

[All DP-420 Questions]

HOTSPOT -

You configure Azure Cognitive Search to index a container in an Azure Cosmos DB Core (SQL) API account as shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

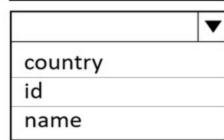
Answer Area

The [answer choice] field is limited to exact match comparisons

id name

country

The [answer choice] field is hidden form the search results



Question #: 5

Topic #: 3

[All DP-420 Questions]

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

FORUM

Q

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a container named container1 in an Azure Cosmos DB Core (SQL) API account.

You need to make the contents of container1 available as reference data for an Azure Stream Analytics job.

Solution: You create an Azure Synapse pipeline that uses Azure Cosmos DB Core (SQL) API as the input and Azure Blob Storage as the output.

Does this meet the goal?

- A. Yes
- B. No

Show Suggested Answer

Q

Actual exam question from Microsoft's DP-420

Question #: 6

Topic #: 3

[All DP-420 Questions]

Note: This guestion is part of a series of guestions that present the same scenario. Each guestion in the series contains a unique solution that might meet the stated goals.

Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a container named container1 in an Azure Cosmos DB Core (SQL) API account.

You need to make the contents of container1 available as reference data for an Azure Stream Analytics job.

Solution: You create an Azure Data Factory pipeline that uses Azure Cosmos DB Core (SQL) API as the input and Azure Blob Storage as the output.

Does this meet the goal?

A. Yes

B. No

Show Suggested Answer

CONTACT

NTACT FORUM

Actual exam question from Microsoft's DP-420

Question #: 7

Topic #: 3

[All DP-420 Questions]

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a container named container1 in an Azure Cosmos DB Core (SQL) API account.

You need to make the contents of container1 available as reference data for an Azure Stream Analytics job.

Solution: You create an Azure function that uses Azure Cosmos DB Core (SQL) API change feed as a trigger and Azure event hub as the output.

Does this meet the goal?

- A. Yes
- B. No

Show Suggested Answer

^

Actual exam question from Microsoft's DP-420

Question #: 9

Topic #: 3

[All DP-420 Questions]

DRAG DROP -

You have an Azure Synapse Analytics workspace named workspace1 that contains a serverless SQL pool.

You have an Azure Table Storage account that stores operational data.

You need to replace the Table storage account with Azure Cosmos DB Core (SQL) API. The solution must meet the following requirements:

- Support queries from the serverless SQL pool.
- Only pay for analytical compute when running queries.
- Ensure that analytical processes do NOT affect operational processes.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions Answer Area

Enable Azure Synapse Link

In workspace1, create a dedicated SQL pool

In the Azure Cosmos DB account create a table that has unlimited storage capacity

Create an Azure Cosmos DB core (SQL) API account

Create a database and a container that has Analytical store enabled



Actual exam question from Microsoft's DP-420

Question #: 12

Topic #: 3

[All DP-420 Questions]

HOTSPOT -

```
You have an Apache Spark pool in Azure Synapse Analytics that runs the following Python code in a notebook.
```

```
dfStream = spark.readStream\
 .format("cosmos.oltp.changeFeed")\
  .option("spark.synapse.linkedService", "contoso-app")\
  .option("spark.cosmos.container", "orders")\
  .option("spark.cosmos.preferredRegions", "westus,eastus")\
  .option("spark.cosmos.changeFeed.startFrom", "Beginning")\
  .option("spark.cosmos.changeFeed.mode", "Incremental")\
  .load()
streamQuery = dfStream\
 .writeStream\
 .format("cosmos.oltp")\
 .option("spark.synapse.linkedService", "contoso-erp")\
 .option("spark.cosmos.container", "orders")\
  .option("checkpointLocation", "/tmp/ordersync/")\
  .outputMode("append")\
 .start()
```

streamQuery.awaitTermination()

For each of the following statements. select Yes if the statement is true. Otherwise. select No.

C4-4----

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

| Statements | Yes | No |
|---|-----|----|
| New and updated orders will be added to contoso-erp.orders. | 0 | 0 |
| The code performs bulk data ingestion from contoso-app. | 0 | 0 |
| Both contoso-app and contoso-erp have Analytical store enabled. | 0 | 0 |

Question #: 13

Topic #: 3

[All DP-420 Questions]

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals.

Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a container named container1 in an Azure Cosmos DB Core (SQL) API account.

You need to make the contents of container1 available as reference data for an Azure Stream Analytics job.

Solution: You create an Azure function to copy data to another Azure Cosmos DB Core (SQL) API container.

Does this meet the goal?

A. Yes

B. No

Show Suggested Answer

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FORUM

Q

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Actual exam question from Microsoft's DP-420

Question #: 14

Topic #: 3

[All DP-420 Questions]

You develop an application that uses Azure Cosmos DB Core (SQL) API.

You create an Azure pipeline to build and deploy the application.

You need to change the pipeline to run integration tests that you wrote for the application. The solution must execute entirely in the pipeline.

What should you add to the pipeline?

- A. a deployment group named Cosmos DB testing
- B. an Azure Cosmos DB Emulator task
- C. a NuGet service connection that uses an Azure Cosmos DB API key
- D. a secret variable that has a connection string to an Azure Cosmos DB database

IAC AA

Actual exam question from Microsoft's DP-420

Question #: 15

Topic #: 3

[All DP-420 Questions]

You plan to create an operational system that will store data in an Azure Cosmos DB Core (SQL) API account.

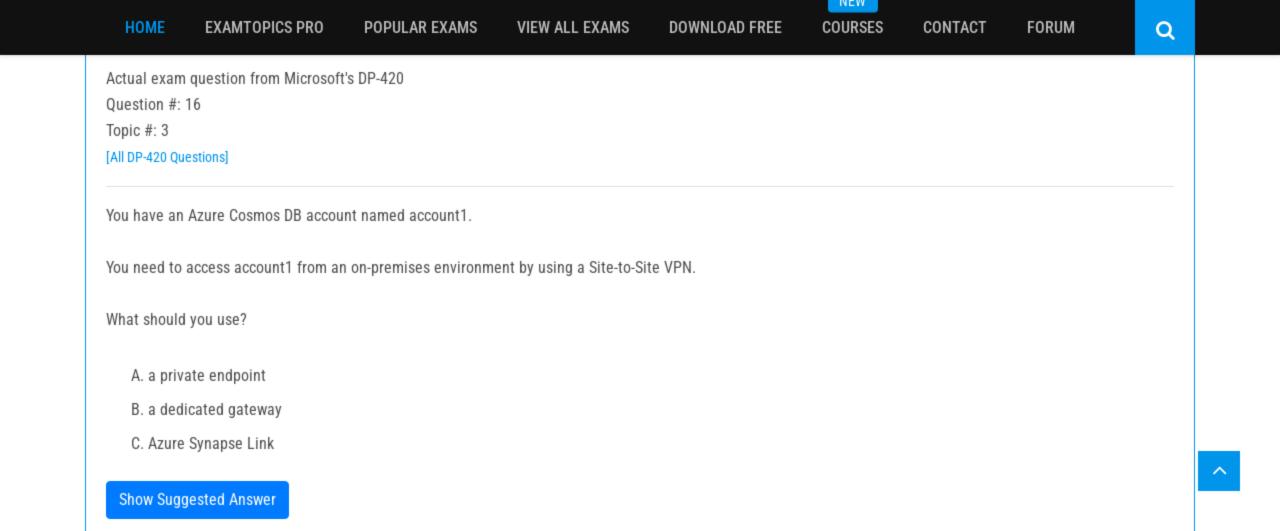
You need to configure the account to meet the following requirements:

- · Support Spark queries.
- · Support the analysis of data from the last six months.
- · Only pay for analytical compute when running queries.

Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Enable Azure Synapse Link for the account.
- B. Create a container and set the analyticalTTL property to six months.
- C. Create an Azure Databricks notebook.
- D. Create an Azure Synapse linked service.
- E. Create a container and set the time to live to six months.
- F. Create an Azure Synapse pipeline.



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Actual exam question from Microsoft's DP-420

Question #: 17

Topic #: 3

[All DP-420 Questions]

HOTSPOT

-

You plan to create an Azure Cosmos DB database named db1 that will contain two containers. One of the containers will contain blog posts, and the other will contain users. Each item in the blog post container will include:

- · A single blog post
- · All the comments associated to the blog post
- The names of the users who created the blog post and added the comments

You need to design a solution to update usernames in the user container without causing data integrity issues. The solution must minimize administrative and development effort.

What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

In the user container, implement:

The change feed processor
A post-trigger
A stored procedure
A user-defined function

In the blog post container, implement:

The change feed processor
A post-trigger
A stored procedure
A user-defined function

Q

Question #: 20

Topic #: 3

[All DP-420 Questions]

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a container named container1 in an Azure Cosmos DB Core (SQL) API account.

You need to make the contents of container1 available as reference data for an Azure Stream Analytics job.

Solution: You create an Azure function that uses Azure Cosmos DB for NoSQL change feed as a trigger and Azure event hub as the output.

Does this meet the goal?

- A. Yes
- B. No

Actual exam question from Microsoft's DP-420

Question #: 23

Topic #: 3

[All DP-420 Questions]

You plan to create an Azure Cosmos DB for NoSQL database named db1 that will contain two containers. One of the containers will contain blog posts, and the other will contain users. Each item in the blog post container will include:

- · A single blog post
- · The top 10 comments associated to the blog post
- The names of the users who created the blog post and the associated comments

You need to automatically update the usernames in the blog post container whenever a username in the user container changes.

What should you implement for the user container?

- A. a stored procedure
- B. a change feed processor
- C. a post-trigger
- D. a user-defined function (UDF)

^

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Actual exam question from Microsoft's DP-420

Question #: 25

Topic #: 3

[All DP-420 Questions]

HOTSPOT

_

You have two Azure Cosmos for NoSQL containers named Container1 and Container2.

You plan to process the change feed for each container by using the following:

- · Container1: Pull model
- · Container2: Change feed processor

You need to track the current processing point for each change feed.

What should you use for each container? To answer, select the appropriate options in the answer area.

Answer Area



A continuation token
A lease in the lease container

The integrated cache

Container2:



A continuation token
A lease in the lease container
The integrated cache

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```
Actual exam question from Microsoft's DP-420
Question #: 1
Topic #: 4
[All DP-420 Questions]
HOTSPOT -
You have the indexing policy shown in the following exhibit.
  SQL API
                                                        Settings
                                   Items
 ▼ Sest
      Scale
                               Settings
                                           Indexing Policy
   {
                               1
       Items
                               2
                                       "indexingMode": "consistent",
       Settings
                               3
                                       "automatic":true,
                               4
                                       "includedPaths":[
     Stored Procedures
                               5
     User Defined Functions
                                                "path": "/surname/?"
                                6
     Triggers
                               8
                                       ],
                               9
                                       "excludedPaths":[
                              10
                                                "path":"/*"
                              11
                              12
                              13
                                       ],
                                       "compositeIndexes":[
                              14
                              15
                                            [
                              16
                                                {
                              17
                                                    "path": "/name"
                              18
                                                },
                              19
                                                {
                                                    "path":"/age"
                              20
                              21
                              22
                                           ]
                              23
                                       ]
                              24
```

Use the drop-down menus to select the answer choice that answers each question based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

When creating a query, which ORDER BY statement will execute successfully?

During the creation of an item, when will the index update?

ORDER BY c.age ASC, c.name ASC
ORDER BY c.age DESC, c.name DESC
ORDER BY c.name ASC, c.age DESC
ORDER BY c.name DESC, c.age ASC
ORDER BY c.name DESC, c.age DESC

Never

At a scheduled interval

At the same time as the item creation

After the item appears in the change feed

FORUM

Q

Actual exam question from Microsoft's DP-420

Question #: 2

Topic #: 4

[All DP-420 Questions]

You have a container named container1 in an Azure Cosmos DB Core (SQL) API account. Upserts of items in container1 occur every three seconds.

You have an Azure Functions app named function1 that is supposed to run whenever items are inserted or replaced in container1.

You discover that function1 runs, but not on every upsert.

You need to ensure that function1 processes each upsert within one second of the upsert.

Which property should you change in the Function.json file of function1?

- A. checkpointInterval
- B. leaseCollectionsThroughput
- C. maxItemsPerInvocation
- D. feedPollDelay

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Actual exam question from Microsoft's DP-420 Question #: 3 Topic #: 4 [All DP-420 Questions]

HOTSPOT -

You have a container named container1 in an Azure Cosmos DB Core (SQL) API account.

The following is a sample of a document in container1.

```
{
    "studentId": "631282"
    "fisrtName": "James",
    "lastName": "Smith",
    "enrollmentYear": 1990,
    "isActivelyEnrolled": true,
    "address": {
         "street": "",
         "city": "",
         "stateProvince": "",
         "postal": ""
 }
 }
The container1 container has the following indexing policy.
    "indexingMode": "consistent",
    "includedPaths": [
         {
            "path": "/*"
         },
            "path": "/address/city/?"
    ],
    "excludedPaths": [
            "path": "/address/*"
         } ,
            "path": "/firstname/?"
    ]
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

}

Answer Area

| Statements | Yes | No |
|---|------------|------------|
| The /isActivelyEnrolled property is included in the index | 0 | \bigcirc |
| The /fisrtname property is included in the index | 0 | 0 |
| The /address/city property is included in the index | \bigcirc | \bigcirc |

Q

Q

FORUM

Actual exam question from Microsoft's DP-420

Question #: 4

Topic #: 4

[All DP-420 Questions]

You have the following query.

```
SELECT * FROM c
```

WHERE c.sensor = "TEMP1"

AND c.value < 22

AND c.timestamp >= 1619146031231

You need to recommend a composite index strategy that will minimize the request units (RUs) consumed by the query.

What should you recommend?

- A. a composite index for (sensor ASC, value ASC) and a composite index for (sensor ASC, timestamp ASC)
- B. a composite index for (sensor ASC, value ASC, timestamp ASC) and a composite index for (sensor DESC, value DESC, timestamp DESC)
- C. a composite index for (value ASC, sensor ASC) and a composite index for (timestamp ASC, sensor ASC)
- D. a composite index for (sensor ASC, value ASC, timestamp ASC)

Question #: 5

Topic #: 4

[All DP-420 Questions]

You have a database in an Azure Cosmos DB Core (SQL API) account. The database contains a container named container1. The indexing mode of container1 is set to none.

FORUM

Q

You configure Azure Cognitive Search to extract data from container1 and make the data searchable.

You discover that the Cognitive Search index is missing all the data from the Azure Cosmos DB index.

What should you do to resolve the issue?

- A. Modify the index attributes in Cognitive Search to Searchable
- B. Modify the index attributes in Cognitive Search to Retrievable
- C. Modify the indexing policy of container1 to exclude the /* path
- D. Change the indexing mode of container1 to consistent

Q

Actual exam question from Microsoft's DP-420

Question #: 6

Topic #: 4

[All DP-420 Questions]

HOTSPOT -

You have an Azure Cosmos DB Core (SQL) API account that frequently receives the same three queries.

You need to configure indexing to minimize RUs consumed by the queries.

Which type of index should you use for each query? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

SELECT * FROM c
WHERE c.city
IN ('Moncton', 'Toronto', 'Montreal')

SELECT * FROM c
WHERE c.city = 'Moncton'
AND c.age > 45
AND c.age < 70</pre>

SELECT * FROM c
WHERE c.city = 'Moncton'
AND c.age > 45

Composite
Range
Spatial

Composite
Range
Spatial

Composite
Range
Spatial

Question #: 7

Topic #: 4

[All DP-420 Questions]

You have a container named container1 in an Azure Cosmos DB Core (SQL) API account named account1 that is set to the session default consistency level. The average size of an item in contained is 20 KB.

FORUM

Q

You have an application named App1 that uses the Azure Cosmos DB SDK and performs a point read on the same set of items in container1 every minute.

You need to minimize the consumption of the request units (RUs) associated to the reads by App1.

What should you do?

- A. In App1, modify the connection policy settings
- B. In App1, change the consistency level of read requests to consistent prefix
- C. In account1, provision a dedicated gateway and integrated cache
- D. In account1, change the default consistency level to bounded staleness

Question #: 8

Topic #: 4

[All DP-420 Questions]

You have an application that queries an Azure Cosmos DB Core (SQL) API account.

You discover that the following two queries run frequently.

SELECT * FROM c WHERE c.name = @name ORDER BY c.name DESC, c.timestamp DESC

SELECT * FROM c WHERE c.name = @name AND c.timestamp ORDER BY c.name ASC, c.timestamp ASC

You need to minimize the request units (RUs) consumed by reads and writes.

What should you create?

- A. a composite index for (name DESC, timestamp ASC)
- B. a composite index for (name ASC, timestamp ASC) and a composite index for (name DESC, timestamp DESC)
- C. a composite index for (name ASC, timestamp ASC)
- D. a composite index for (name ASC, timestamp DESC)

Q

Actual exam question from Microsoft's DP-420

Question #: 9

Topic #: 4

[All DP-420 Questions]

You have a container in an Azure Cosmos DB Core (SQL) API account.

Data update volumes are unpredictable.

You need to process the change feed of the container by using a web app that has multiple instances. The change feed will be processed by using the change feed processor from the Azure Cosmos DB SDK. The multiple instances must share the workload.

Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Configure the same processor name for all the instances
- B. Configure a different processor name for each instance
- C. Configure a different instance name for each instance
- D. Configure a different lease container configuration for each instance
- E. Configure the same instance name for all the instances
- F. Configure the same lease container configuration for all the instances

Actual exam question from Microsoft's DP-420

Question #: 10

Topic #: 4

[All DP-420 Questions]

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a database in an Azure Cosmos DB Core (SQL) API account that is configured for multi-region writes.

You need to use the Azure Cosmos DB SDK to implement the conflict resolution policy for a container. The solution must ensure that any conflicts are sent to the conflicts feed.

Solution: You set ConflictResolutionMode to Custom and you use the default settings for the policy.

Does this meet the goal?

- A. Yes
- B. No

Actual exam question from Microsoft's DP-420

Question #: 11

Topic #: 4

[All DP-420 Questions]

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a database in an Azure Cosmos DB Core (SQL) API account that is configured for multi-region writes.

You need to use the Azure Cosmos DB SDK to implement the conflict resolution policy for a container. The solution must ensure that any conflicts are sent to the conflicts feed.

Solution: You set ConflictResolutionMode to Custom. You set ResolutionProcedure to a custom stored procedure. You configure the custom stored procedure to use the conflictingItems parameter to resolve conflicts.

Does this meet the goal?

- A. Yes
- B. No