





Microsoft Azure Data Fundamentals v1.0 (DP-900) - Full Access

| | | |
|--|--|---|
| Question 101 (Describe how to work with non-relational data on Azure) | |  |
| <p>Your company is designing an application that will write a high volume of JSON data and will have an application-defined schema. Which type of data store should you use?</p> <p>A. columnar B. key/value C. document D. graph</p> <p>Answer : B</p> <p>Explanation: A key/value store associates each data value with a unique key. An application can store arbitrary data as a set of values. Any schema information must be provided by the application. The key/value store simply retrieves or stores the value by key. Reference: https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/data-store-overview</p> | | |
| Question 102 (Describe how to work with non-relational data on Azure) | |  |
| <p>You need to recommend a non-relational data store that is optimized for storing and retrieving text files, videos, audio streams, and virtual disk images. The data store must store data, some metadata, and a unique ID for each file. Which type of data store should you recommend?</p> <p>A. key/value B. columnar C. object D. document</p> <p>Answer : C</p> <p>Explanation: Object storage is optimized for storing and retrieving large binary objects (images, files, video and audio streams, large application data objects and documents, virtual machine disk images). Large data files are also popularly used in this model, for example, delimiter file (CSV), parquet, and ORC. Object stores can manage extremely large amounts of unstructured data. Reference: https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/data-store-overview</p> | | |
| Question 103 (Describe how to work with non-relational data on Azure) | |  |
| <p>Your company is designing a data store for internet-connected temperature sensors. The collected data will be used to analyze temperature trends. Which type of data store should you use?</p> <p>A. relational B. time series C. graph D. columnar</p> <p>Answer : B</p> <p>Explanation: Time series data is a set of values organized by time. Time series databases typically collect large amounts of data in real time from a large number of sources. Updates are rare, and deletes are often done as bulk operations. Although the records written to a time-series database are generally small, there are often a large number of records, and total data size can grow rapidly. Reference: https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/data-store-overview</p> | | |
| Question 104 (Describe how to work with non-relational data on Azure) | |  |
| <p>HOTSPOT - 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:</p> | | |
| <div>Answer Area</div> | | |

| Statements | Yes | No |
|--|-----------------------|-----------------------|
| Copying data to Azure Data Lake Storage from another Azure region results in extra cost. | <input type="radio"/> | <input type="radio"/> |
| You can use blob, table, and file storage in the same Azure Storage account. | <input type="radio"/> | <input type="radio"/> |
| You implement Azure Data Lake Storage by creating an Azure Storage account. | <input type="radio"/> | <input type="radio"/> |

Answer :

Answer Area

| Statements | Yes | No |
|--|----------------------------------|-----------------------|
| Copying data to Azure Data Lake Storage from another Azure region results in extra cost. | <input checked="" type="radio"/> | <input type="radio"/> |
| You can use blob, table, and file storage in the same Azure Storage account. | <input checked="" type="radio"/> | <input type="radio"/> |
| You implement Azure Data Lake Storage by creating an Azure Storage account. | <input checked="" type="radio"/> | <input type="radio"/> |

Reference:
<https://docs.microsoft.com/en-us/azure/data-lake-store/data-lake-store-get-started-portal> <https://docs.microsoft.com/en-us/azure/storage/common/storage-account-overview> <https://azure.microsoft.com/en-us/pricing/details/bandwidth/>

Question 105 (Describe how to work with non-relational data on Azure)



HOTSPOT -
To complete the sentence, select the appropriate option in the answer area.
Hot Area:

Answer Area

When using the Azure Cosmos DB Gremlin API, the container resource type is projected as a

▼

graph.

table.

partition key.

document.

Answer :

Answer Area

When using the Azure Cosmos DB Gremlin API, the container resource type is projected as a

▼

graph.

table.

partition key.

document.

Reference:
<https://docs.microsoft.com/en-us/azure/cosmos-db/create-graph-gremlin-console>

Question 106 (Describe how to work with non-relational data on Azure)



At which two levels can you set the throughput for an Azure Cosmos DB account? Each correct answer presents a complete solution. (Choose two.)
NOTE: Each correct selection is worth one point.

- A. database
- B. item
- C. container
- D. partition

Answer : AC

Reference:
<https://docs.microsoft.com/en-us/azure/cosmos-db/set-throughput>

Question 107 (Describe how to work with non-relational data on Azure)



HOTSPOT -
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 |
|--|-----------------------|-----------------------|
| Azure Table storage supports multiple read replicas. | <input type="radio"/> | <input type="radio"/> |
| Azure Table storage supports multiple write regions. | <input type="radio"/> | <input type="radio"/> |
| The Azure Cosmos DB Table API supports multiple read replicas. | <input type="radio"/> | <input type="radio"/> |
| The Azure Cosmos DB Table API supports multiple write regions. | <input type="radio"/> | <input type="radio"/> |

Answer :

Answer Area

| Statements | Yes | No |
|--|----------------------------------|----------------------------------|
| Azure Table storage supports multiple read replicas. | <input checked="" type="radio"/> | <input type="radio"/> |
| Azure Table storage supports multiple write regions. | <input type="radio"/> | <input checked="" type="radio"/> |
| The Azure Cosmos DB Table API supports multiple read replicas. | <input checked="" type="radio"/> | <input type="radio"/> |
| The Azure Cosmos DB Table API supports multiple write regions. | <input checked="" type="radio"/> | <input type="radio"/> |

Reference:
<https://docs.microsoft.com/en-us/azure/cosmos-db/high-availability>

Question 108 (Describe how to work with non-relational data on Azure)








Which setting can only be configured during the creation of an Azure Cosmos DB account?

- A. geo-redundancy
- B. multi-region writes
- C. production or non-production account type
- D. API

Answer : D

Explanation:
You must create a separate account for each API.
Reference:
<https://docs.microsoft.com/en-us/azure/cosmos-db/how-to-manage-database-account>

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|---|---|
| Question 109 (Describe an analytics workload on Azure) |  |
| <p>You need to gather real-time telemetry data from a mobile application. Which type of workload describes this scenario?</p> <p>A. Online Transaction Processing (OLTP) B. batch C. massively parallel processing (MPP) D. streaming</p> <p>Answer : D</p> <p>Reference: https://docs.microsoft.com/en-in/azure/azure-monitor/overview</p> | |
| Question 110 (Describe an analytics workload on Azure) |  |
| <p>You have a SQL pool in Azure Synapse Analytics that is only used actively every night for eight hours. You need to minimize the cost of the dedicated SQL pool as much as possible during idle times. The solution must ensure that the data remains intact. What should you do on the SQL pool?</p> <p>A. Scale down the data warehouse units (DWUs). B. Pause the pool. C. Create a user-defined restore point. D. Delete the pool</p> <p>Answer : B</p> <p>Reference: https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-manage-compute-overview</p> | |
| Question 111 (Describe an analytics workload on Azure) |  |
| <p>Which Azure Data Factory component initiates the execution of a pipeline?</p> <p>A. a control flow B. a trigger C. a parameter D. an activity</p> <p>Answer : B</p> <p>Reference: https://docs.microsoft.com/en-us/azure/data-factory/concepts-pipeline-execution-triggers#trigger-execution</p> | |
| Question 112 (Describe an analytics workload on Azure) |  |
| <p>Your company has a reporting solution that has paginated reports. The reports query a dimensional model in a data warehouse. Which type of processing does the reporting solution use?</p> <p>A. stream processing B. batch processing C. Online Analytical Processing (OLAP) D. Online Transaction Processing (OLTP)</p> <p>Answer : C</p> <p>Reference: https://datawarehouseinfo.com/how-does-oltp-differ-from-olap-database/</p> | |
| Question 113 (Describe an analytics workload on Azure) |  |
| <p>DRAG DROP - Match the types of activities to the appropriate Azure Data Factory activities. To answer, drag the appropriate activity type from the column on the left to its Data Factory activity on the right. Each activity type may be used once, more than once, or not at all. NOTE: Each correct match is worth one point. Select and Place:</p> | |

Activity Types

Control

Data movement

Data transformation

Answer Area

Copy

Mapping data flow

Lookup

Answer :

Activity Types

Control

Data movement

Data transformation

Answer Area

Data movement

Copy

Data transformation

Mapping data flow

Control

Lookup

Explanation:

Box 1: Data movement -

Box 2: Data transformation -

A pipeline could contain a set of activities that ingest and clean log data, and then kick off a mapping data flow to analyze the log data.

Box 3: Control -

Lookup Activity is a control flow activity.

Lookup Activity can be used to read or look up a record/ table name/ value from any external source. This output can further be referenced by succeeding activities.

Reference:

<https://docs.microsoft.com/en-us/azure/data-factory/concepts-pipelines-activities#data-transformation-activities>

Question 114 (Describe an analytics workload on Azure)



What are three characteristics of an Online Transaction Processing (OLTP) workload? Each correct answer presents a complete solution. (Choose three.)

NOTE: Each correct selection is worth one point.

- A. denormalized data
- B. heavy writes and moderate reads
- C. light writes and heavy reads
- D. schema on write
- E. schema on read
- F. normalized data

Answer : BDF

Explanation:

B: Transactional data tends to be heavy writes, moderate reads.

D: Typical traits of transactional data include: schema on write, strongly enforced

F: Transactional data tends to be highly normalized.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/data-guide/relational-data/online-transaction-processing>

Question 115 (Describe an analytics workload on Azure)



Which two activities can be performed entirely by using the Microsoft Power BI service without relying on Power BI Desktop? Each correct answer presents a complete solution. (Choose two.)

NOTE: Each correct selection is worth one point.

- A. report and dashboard creation
- B. report sharing and distribution
- C. data modeling
- D. data acquisition and preparation

Answer : AD



HOTSPOT -
To complete the sentence, select the appropriate option in the answer area.
Hot Area:

Answer Area

In Azure Data Factory, you can use

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|------------------------|---|
| | ▼ |
| a control flow | |
| a dataset | |
| a linked service | |
| an integration runtime | |

 to orchestrate pipeline activities that depend on the output of other pipeline activities.

Answer :

Answer Area

In Azure Data Factory, you can use

| | |
|------------------------|---|
| | ▼ |
| a control flow | |
| a dataset | |
| a linked service | |
| an integration runtime | |

 to orchestrate pipeline activities that depend on the output of other pipeline activities.

Reference:
<https://docs.microsoft.com/en-us/azure/data-factory/frequently-asked-questions>



You need to develop a solution to provide data to executives. The solution must provide an interactive graphical interface, depict various key performance indicators, and support data exploration by using drill down. What should you use in Microsoft Power BI?

- A. a dashboard
- B. a report
- C. a dataflow
- D. Microsoft Power Apps

Answer : B

Reference:
<https://docs.microsoft.com/en-us/power-bi/consumer/end-user-dashboards> <https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-kpi> <https://docs.microsoft.com/en-us/power-bi/consumer/end-user-drill>



Which two Azure services can be used to provision Apache Spark clusters? Each correct answer presents a complete solution. (Choose two.)
NOTE: Each correct selection is worth one point.

- A. Azure Time Series Insights
- B. Azure HDInsight
- C. Azure Databricks
- D. Azure Log Analytics

Answer : BC

Reference:
<https://www.sqlshack.com/a-beginners-guide-to-azure-databricks/>



You have a quality assurance application that reads data from a data warehouse.

you have a query assurance application that reads data from a data warehouse. Which type of processing does the application use?

- A. Online Transaction Processing (OLTP)
- B. batch processing
- C. Online Analytical Processing (OLAP)
- D. stream processing

Answer : A

Reference:
<https://docs.microsoft.com/en-us/azure/architecture/data-guide/relational-data/online-transaction-processing>

Question 120 (Describe an analytics workload on Azure)



Which three objects can be added to a Microsoft Power BI dashboard? Each correct answer presents a complete solution. (Choose three.)
NOTE: Each correct selection is worth one point.

- A. a report page
- B. a Microsoft PowerPoint slide
- C. a visualization from a report
- D. a dataflow
- E. a text box

Answer : ACE

Reference:
<https://docs.microsoft.com/en-us/power-bi/consumer/end-user-dashboards> <https://docs.microsoft.com/en-us/power-bi/create-reports/service-dashboard-add-widget>

Question 121 (Describe an analytics workload on Azure)



HOTSPOT -
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 |
|--|-----------------------|-----------------------|
| A Microsoft Power BI dashboard is associated with a single workspace. | <input type="radio"/> | <input type="radio"/> |
| A Microsoft Power BI dashboard can only display visualizations from a single dataset. | <input type="radio"/> | <input type="radio"/> |
| A Microsoft Power BI dashboard can display visualizations from a Microsoft Excel workbook. | <input type="radio"/> | <input type="radio"/> |

Answer :

Answer Area

| Statements | Yes | No |
|--|----------------------------------|----------------------------------|
| A Microsoft Power BI dashboard is associated with a single workspace. | <input type="radio"/> | <input checked="" type="radio"/> |
| A Microsoft Power BI dashboard can only display visualizations from a single dataset. | <input type="radio"/> | <input checked="" type="radio"/> |
| A Microsoft Power BI dashboard can display visualizations from a Microsoft Excel workbook. | <input checked="" type="radio"/> | <input type="radio"/> |

Reference:
<https://docs.microsoft.com/en-us/power-bi/connect-data/service-datasets-across-workspaces> <https://docs.microsoft.com/en-us/power-bi/consumer/end-user-dashboards><https://powerbi.microsoft.com/en-us/excel-and-power-bi/>



Which Azure Data Factory component provides the compute environment for activities?

- A. SSIS packages
- B. an integration runtime
- C. a control flow
- D. a pipeline

Answer : B

Explanation:
The Integration Runtime (IR) is the compute infrastructure used by Azure Data Factory to provide the following data integration capabilities across different network environments:
☞ Data Flow
☞ Data movement
☞ Activity dispatch
☞ SSIS package execution
Reference:
<https://docs.microsoft.com/en-us/azure/data-factory/concepts-integration-runtime>



HOTSPOT -
To complete the sentence, select the appropriate option in the answer area.
Hot Area:

Answer Area

A Microsoft Power BI

▼

dashboard

interactive report

paginated report

subscription

enables users to create highly formatted,

fixed-layout documents optimized for printing and archiving.

Answer :

Answer Area

A Microsoft Power BI

▼

dashboard

interactive report

paginated report

subscription

enables users to create highly formatted,

fixed-layout documents optimized for printing and archiving.

Explanation:
Paginated Reports in Power BI now allows users to generate these fixed-layout documents optimized for printing and archiving, such as PDF and Word files. These document-style reports with visualizations that provide additional control, like which tables expand horizontally and vertically to display all their data and continue from page to page as needed.
Reference:
<https://powerbi.microsoft.com/en-us/blog/announcing-paginated-reports-in-power-bi-general-availability/>



What are two uses of data visualization? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

- A. Represent trends and patterns over time
- B. Implement machine learning to predict future values
- C. Communicate the significance of data
- D. Enforce business logic across reports

Answer : AC

Explanation:
Data visualization is a key component in being able to gain insight into your data. It helps make big and small data easier for humans to understand. It also makes it easier to detect patterns, trends, and outliers in groups of data.

Data visualization helps data to help you find key business insights quickly and effectively.

Data visuauization brings data to neip you nnd key business insights quickly and effectively.
Reference:
<https://docs.microsoft.com/en-us/azure/synapse-analytics/spark/apache-spark-data-visualization>

Question 125 (Describe an analytics workload on Azure)



You need to use Transact-SQL to query files in Azure Data Lake Storage from an Azure Synapse Analytics data warehouse.
What should you use to query the files?

- A. Azure Functions
- B. Microsoft SQL Server Integration Services (SSIS)
- C. PolyBase
- D. Azure Data Factory

Answer : C

Reference:
<https://docs.databricks.com/data/data-sources/azure/synapse-analytics.html>

Question 126 (Describe an analytics workload on Azure)



HOTSPOT -
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 |
|--|-----------------------|-----------------------|
| You can copy a dashboard between Microsoft Power BI workspaces. | <input type="radio"/> | <input type="radio"/> |
| A Microsoft Power BI dashboard can only display visualizations from a single dataset. | <input type="radio"/> | <input type="radio"/> |
| A Microsoft Power BY dashboard can display visualizations from a Microsoft Excel workbook. | <input type="radio"/> | <input type="radio"/> |

Answer :

Answer Area

| Statements | Yes | No |
|--|----------------------------------|----------------------------------|
| You can copy a dashboard between Microsoft Power BI workspaces. | <input type="radio"/> | <input checked="" type="radio"/> |
| A Microsoft Power BI dashboard can only display visualizations from a single dataset. | <input type="radio"/> | <input checked="" type="radio"/> |
| A Microsoft Power BY dashboard can display visualizations from a Microsoft Excel workbook. | <input checked="" type="radio"/> | <input type="radio"/> |

Explanation:

Box 1: No -
You can duplicate a dashboard. The duplicate ends up in the same Power BI workspace.
There is no current functionality that allows you to move reports from one workspace to another.

Box 2: No -

Box 3: Yes -
Reference:
<https://docs.microsoft.com/en-us/power-bi/connect-data/service-datasets-across-workspaces> <https://docs.microsoft.com/en-us/power-bi/consumer/end-user-dashboards><https://powerbi.microsoft.com/en-us/excel-and-power-bi/>

Question 127 (Describe an analytics workload on Azure)



What are three characteristics of an Online Transaction Processing (OLTP) workload? Each correct answer presents a complete solution. (Choose three.)
NOTE: Each correct selection is worth one point.

- A. denormalized data
- B. heavy writes and moderate reads
- C. light writes and heavy reads
- D. schema defined in a database
- E. schema defined when reading unstructured data from a database
- F. normalized data

Answer : BDF

Explanation:
B: Transactional data tends to be heavy writes, moderate reads.
D: Typical traits of transactional data include: schema on write, strongly enforced. The schema is defined in a database.
F: Transactional data tends to be highly normalized.
Reference:
<https://docs.microsoft.com/en-us/azure/architecture/data-guide/relational-data/online-transaction-processing>

Question 128 (Describe an analytics workload on Azure)



What is the primary purpose of a data warehouse?

A. to provide answers to complex queries that rely on data from multiple sources
B. to provide transformation services between source and target data stores
C. to provide read-only storage of relational and non-relational historical data
D. to provide storage for transactional line-of-business (LOB) applications

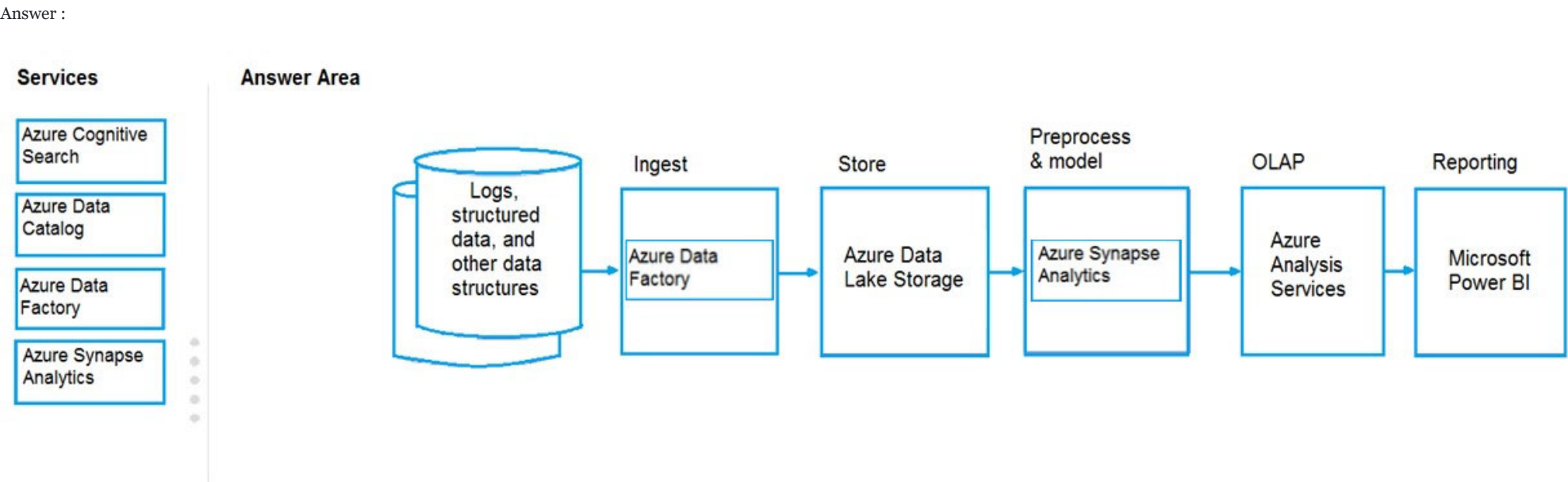
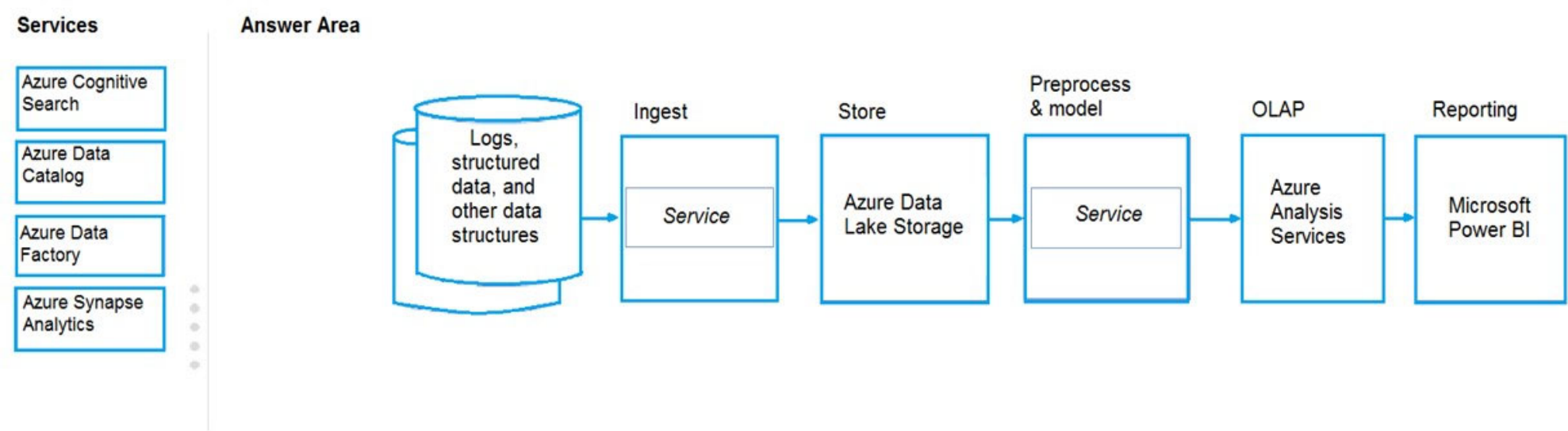
Answer : C

Explanation:
Consider using a data warehouse when you need to keep historical data separate from the source transaction systems for performance reasons. Data warehouses make it easy to access historical data from multiple locations, by providing a centralized location using common formats, keys, and data models.
Query both relational and nonrelational data.
Incorrect Answers:
D: Data warehouses don't need to follow the same terse data structure you may be using in your OLTP databases.
Reference:
<https://docs.microsoft.com/en-us/azure/architecture/data-guide/relational-data/data-warehousing>

Question 129 (Describe an analytics workload on Azure)



DRAG DROP -
Match the Azure services to the appropriate locations in the architecture.
To answer, drag the appropriate service from the column on the left to its location on the right. Each service may be used once, more than once, or not at all.
NOTE: Each correct match is worth one point.
Select and Place:



Explanation:
Box Ingest: Azure Data Factory -
You can build a data ingestion pipeline with Azure Data Factory (ADF).
Box Preprocess & model: Azure Synapse Analytics
Use Azure Synapse Analytics to preprocess data and deploy machine learning models.
Reference:
<https://docs.microsoft.com/en-us/azure/machine-learning/how-to-data-ingest-adf> <https://docs.microsoft.com/en-us/azure/machine-learning/team-data-science-process/sqldw-walkthrough>

DRAG DROP -
Match the types of workloads to the appropriate scenarios.
To answer, drag the appropriate workload type from the column on the left to its scenario on the right. Each workload type may be used once, more than once, or not at all.
NOTE: Each correct match is worth one point.
Select and Place:

Workload Types

Batch

Streaming

Answer Area

Workload type

Analyzing web traffic from the past year

Workload type

Classifying images that were uploaded last month

Workload type

Tracking how many people are currently using a website

Answer :

Workload Types

Batch

Streaming

Answer Area

Batch

Analyzing web traffic from the past year

Batch

Classifying images that were uploaded last month

Streaming

Tracking how many people are currently using a website

Explanation:

Box 1: Batch -
The batch processing model requires a set of data that is collected over time while the stream processing model requires data to be fed into an analytics tool, often in micro-batches, and in real-time. The batch Processing model handles a large batch of data while the Stream processing model handles individual records or micro-batches of few records. In Batch Processing, it processes over all or most of the data but in Stream Processing, it processes over data on a rolling window or most recent record.

Box 2: Batch -

Box 3: Streaming -
Reference:
<https://k21academy.com/microsoft-azure/dp-200/batch-processing-vs-stream-processing>

HOTSPOT -
To complete the sentence, select the appropriate option in the answer area.
Hot Area:

Answer Area

In a data warehousing workload, data

| | |
|---|---|
| | ▼ |
| from a single source is distributed to multiple locations | |
| from multiple sources is combined in a single location | |
| is added to a queue for multiple systems to process | |
| is used to train machine learning models | |

Answer :

Answer Area

In a data warehousing workload, data

| | |
|---|---|
| | ▼ |
| from a single source is distributed to multiple locations | |
| from multiple sources is combined in a single location | |
| is added to a queue for multiple systems to process | |
| is used to train machine learning models | |

Explanation:
Note: The data warehouse workload encompasses:
⦿ The entire process of loading data into the warehouse
⦿ Performing data warehouse analysis and reporting
⦿ Managing data in the data warehouse
⦿ Exporting data from the data warehouse
Reference:
<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-workload-management>

Question 132 (Describe an analytics workload on Azure)



HOTSPOT -
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 |
|--|-----------------------|-----------------------|
| A pipeline is a representation of a data structure within Azure Data Factory | <input type="radio"/> | <input type="radio"/> |
| Azure Data Factory pipelines can execute other pipelines | <input type="radio"/> | <input type="radio"/> |
| A processing step within an Azure Data Factory pipeline is an activity | <input type="radio"/> | <input type="radio"/> |

Answer :

Answer Area

| Statements | Yes | No |
|--|----------------------------------|----------------------------------|
| A pipeline is a representation of a data structure within Azure Data Factory | <input type="radio"/> | <input checked="" type="radio"/> |
| Azure Data Factory pipelines can execute other pipelines | <input checked="" type="radio"/> | <input type="radio"/> |
| A processing step within an Azure Data Factory pipeline is an activity | <input checked="" type="radio"/> | <input type="radio"/> |

Explanation:

explanation:

Box 1: No -
A pipeline is a logical grouping of activities that together perform a task.

Box 2: Yes -
You can construct pipeline hierarchies with data factory.

Box 3: Yes -
A pipeline is a logical grouping of activities that together perform a task.
Reference:
<https://mrpaulandrew.com/2019/09/25/azure-data-factory-pipeline-hierarchies-generation-control/>

Question 133 (Describe an analytics workload on Azure)



DRAG DROP -
Match the Azure services to the appropriate requirements.
To answer, drag the appropriate service from the column on the left to its requirement on the right. Each service may be used once, more than once, or not at all.
NOTE: Each correct match is worth one point.
Select and Place:

Services

- Azure Data Factory
- Azure Data Lake Storage
- Azure SQL Database
- Azure Synapse Analytics

Answer Area

- Service Output data to Parquet format
- Service Store data that is in Parquet format
- Service Persist a tabular representation of data that is stored in Parquet format

Answer :

Services

- Azure Data Factory
- Azure Data Lake Storage
- Azure SQL Database
- Azure Synapse Analytics

Answer Area

- Azure Data Factory Output data to Parquet format
- Azure Data Lake Storage Store data that is in Parquet format
- Azure Synapse Analytics Persist a tabular representation of data that is stored in Parquet format

Explanation:

Box 1: Azure Data Factory -

Box 2: Azure Data Lake Storage -
Azure Data Lake Storage (ADLA) now natively supports Parquet files. ADLA adds a public preview of the native extractor and outputter for the popular Parquet file format

Box 3: Azure Synapse Analytics -
Use Azure Synapse Analytics Workspaces.
Reference:
<https://docs.microsoft.com/en-us/azure/data-factory/supported-file-formats-and-compression-codecs>

Question 134 (Describe an analytics workload on Azure)

HOTSPOT -

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 |
|--|-----------------------|-----------------------|
| Azure Synapse Analytics scales storage and compute independently | <input type="radio"/> | <input type="radio"/> |
| Azure Synapse Analytics can be paused to reduce compute costs | <input type="radio"/> | <input type="radio"/> |
| An Azure Synapse Analytics data warehouse has a fixed storage capacity | <input type="radio"/> | <input type="radio"/> |

Answer :

Answer Area

| Statements | Yes | No |
|--|----------------------------------|----------------------------------|
| Azure Synapse Analytics scales storage and compute independently | <input checked="" type="radio"/> | <input type="radio"/> |
| Azure Synapse Analytics can be paused to reduce compute costs | <input checked="" type="radio"/> | <input type="radio"/> |
| An Azure Synapse Analytics data warehouse has a fixed storage capacity | <input type="radio"/> | <input checked="" type="radio"/> |

Explanation:

Box 1: Yes -
Compute is separate from storage, which enables you to scale compute independently of the data in your system.

Box 2: Yes -
You can use the Azure portal to pause and resume the dedicated SQL pool compute resources.
Pausing the data warehouse pauses compute. If your data warehouse was paused for the entire hour, you will not be charged compute during that hour.

Box 3: No -
Storage is sold in 1 TB allocations. If you grow beyond 1 TB of storage, your storage account will automatically grow to 2 TBs.

Reference:
<https://azure.microsoft.com/en-us/pricing/details/synapse-analytics/>

Question 135 (Describe an analytics workload on Azure)

What should you use to build a Microsoft Power BI paginated report?

A. Charticulator
B. Power BI Desktop
C. the Power BI service
D. Power BI Report Builder

Answer : D

Explanation:
Power BI Report Builder is the standalone tool for authoring paginated reports for the Power BI service.

Reference:
<https://docs.microsoft.com/en-us/power-bi/paginated-reports/paginated-reports-report-builder-power-bi>

Question 136 (Describe an analytics workload on Azure)

DRAG DROP -

Match the Azure services to the appropriate locations in the architecture.

To answer, drag the appropriate service from the column on the left to its location on the right. Each service may be used once, more than once, or not at all.

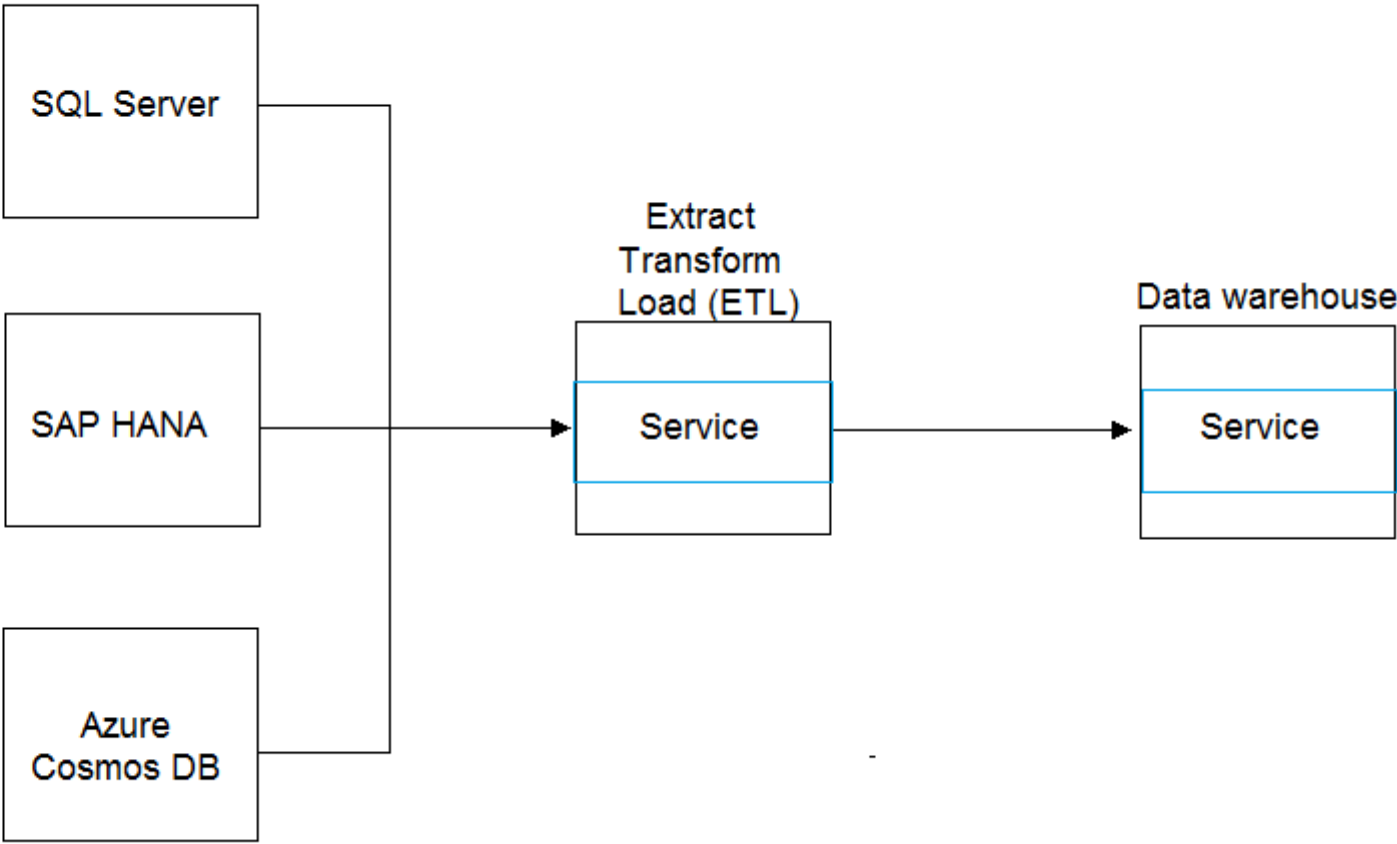
NOTE: Each correct match is worth one point.

Select and Place:

Services

- Azure Analysis Services
- Azure Data Factory
- Azure Table storage
- Azure Cosmos DB
- Azure Synapse Analytics

Answer Area

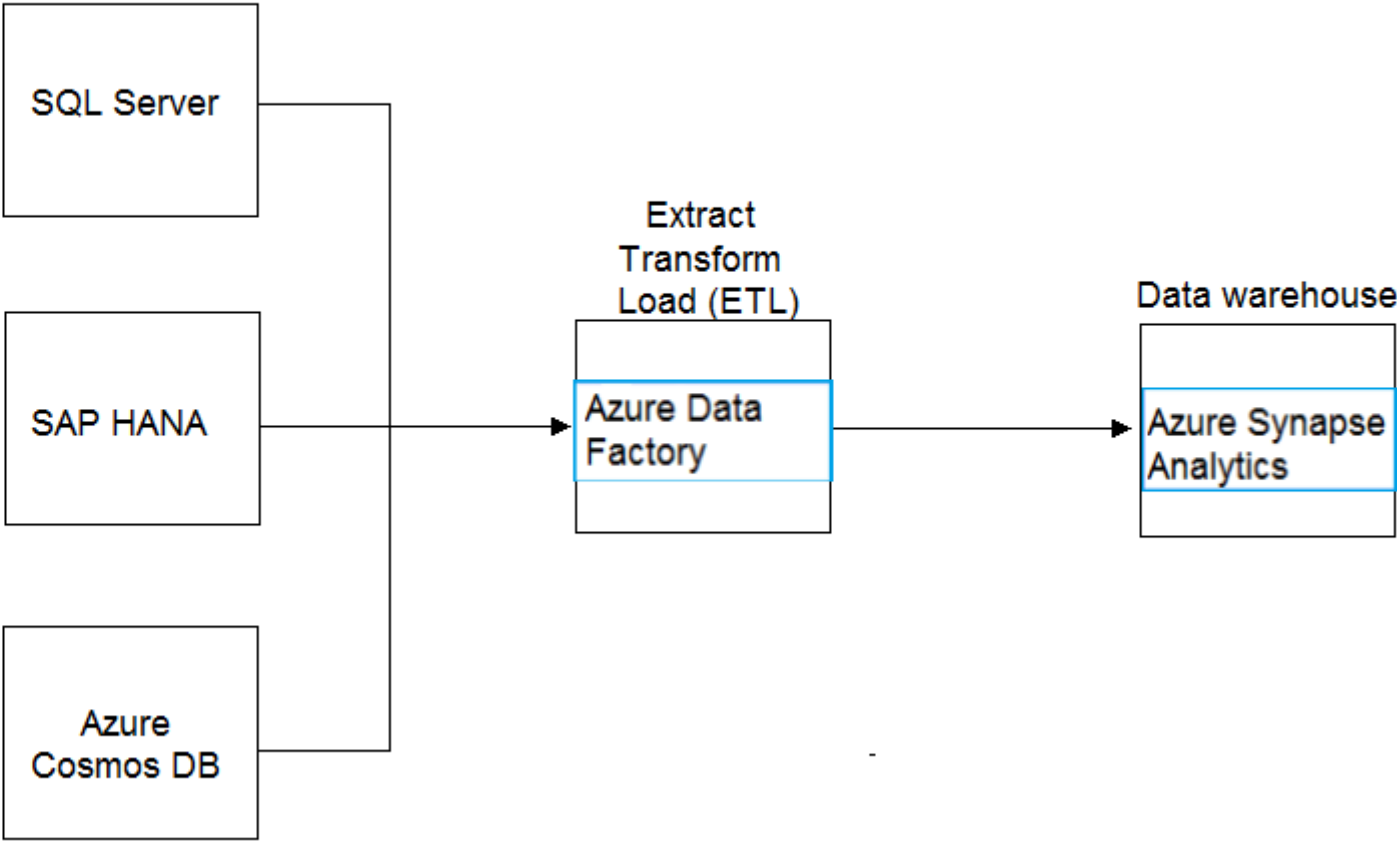


Answer :

Services

- Azure Analysis Services
- Azure Data Factory
- Azure Table storage
- Azure Cosmos DB
- Azure Synapse Analytics

Answer Area



Explanation:

Box 1: Azure Data factory - Relevant Azure service for the three ETL phases are Azure Data Factory and SQL Server Integration Services (SSIS).

Box 2: Azure Synapse Analytics - You can copy and transform data in Azure Synapse Analytics by using Azure Data Factory
Note: Azure Synapse Analytics connector is supported for the following activities:
☞ Copy activity with supported source/sink matrix table
☞ Mapping data flow
☞ Lookup activity
☞ GetMetadata activity

Reference: <https://docs.microsoft.com/en-us/azure/architecture/data-guide/relational-data/etl> <https://docs.microsoft.com/en-us/azure/data-factory/connector-azure-sql-data-warehouse>



r or 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 |
|---|-----------------------|-----------------------|
| Azure Databricks is an Apache Spark-based collaborative analytics platform. | <input type="radio"/> | <input type="radio"/> |
| Azure Analysis Services is used for transactional workloads. | <input type="radio"/> | <input type="radio"/> |
| Azure Data Factory orchestrates data integration workflows. | <input type="radio"/> | <input type="radio"/> |

Answer :

Answer Area

| Statements | Yes | No |
|---|----------------------------------|----------------------------------|
| Azure Databricks is an Apache Spark-based collaborative analytics platform. | <input checked="" type="radio"/> | <input type="radio"/> |
| Azure Analysis Services is used for transactional workloads. | <input type="radio"/> | <input checked="" type="radio"/> |
| Azure Data Factory orchestrates data integration workflows. | <input checked="" type="radio"/> | <input type="radio"/> |

Reference:
<https://docs.microsoft.com/en-us/azure/databricks/scenarios/what-is-azure-databricks> <https://docs.microsoft.com/en-us/azure/analysis-services/analysis-services-overview> <https://docs.microsoft.com/en-us/azure/data-factory/introduction>

Question 138 (Describe an analytics workload on Azure)



Which scenario is an example of a streaming workload?

- A. sending transactions that are older than a month to an archive
- B. sending transactions daily from point of sale (POS) devices
- C. sending telemetry data from edge devices
- D. sending cloud infrastructure metadata every 30 minutes

Answer : C

Question 139 (Describe an analytics workload on Azure)



HOTSPOT -
To complete the sentence, select the appropriate option in the answer area.
Hot Area:

Answer Area

Batch workloads

process data in memory, row-by-row.
collect and process data at most once a day.
process data as new data is received in near real-time.
collect data and then process the data when a condition is met.

Answer :

Answer Area

| | |
|-----------------|---|
| Batch workloads | |
| | process data in memory, row-by-row. |
| | collect and process data at most once a day. |
| | process data as new data is received in near real time. |

Question 140 (Describe an analytics workload on Azure)

HOTSPOT -
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 |
|--|-----------------------|-----------------------|
| Processing salary payments once a month is an example of a batch workload. | <input type="radio"/> | <input type="radio"/> |
| A wind turbine that sends 50 sensor readings per second is an example of a streaming workload. | <input type="radio"/> | <input type="radio"/> |
| A home electricity meter that sends readings once a day to an energy provider is an example of a streaming workload. | <input type="radio"/> | <input type="radio"/> |

Answer :

Answer Area

| Statements | Yes | No |
|--|----------------------------------|----------------------------------|
| Processing salary payments once a month is an example of a batch workload. | <input checked="" type="radio"/> | <input type="radio"/> |
| A wind turbine that sends 50 sensor readings per second is an example of a streaming workload. | <input checked="" type="radio"/> | <input type="radio"/> |
| A home electricity meter that sends readings once a day to an energy provider is an example of a streaming workload. | <input type="radio"/> | <input checked="" type="radio"/> |

Question 141 (Describe an analytics workload on Azure)

A bar chart showing year-to-date sales by region is an example of which type of analytics?

- A. predictive
- B. prescriptive
- C. descriptive
- D. diagnostic

Answer : D