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A Composite Solution With Just One Click

Microsoft

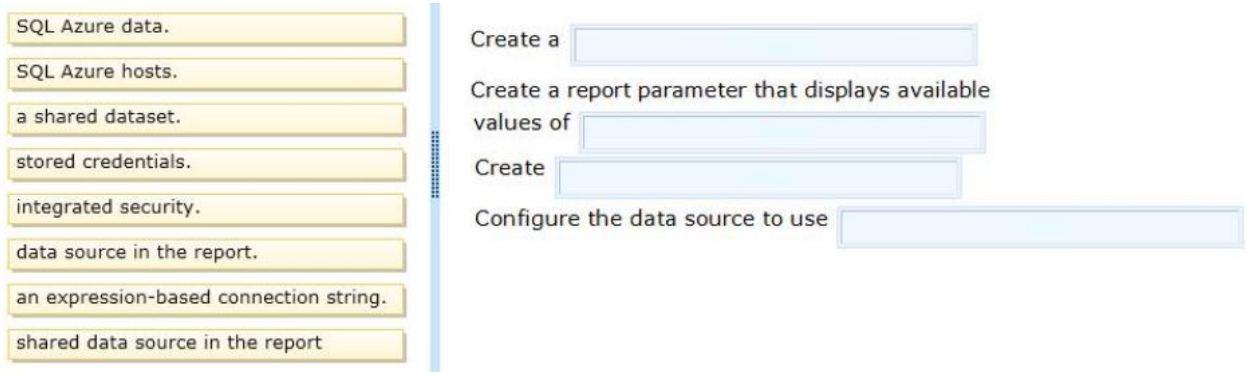
70-470 PRACTICE EXAM

Recertification for MCSE: Business Intelligence

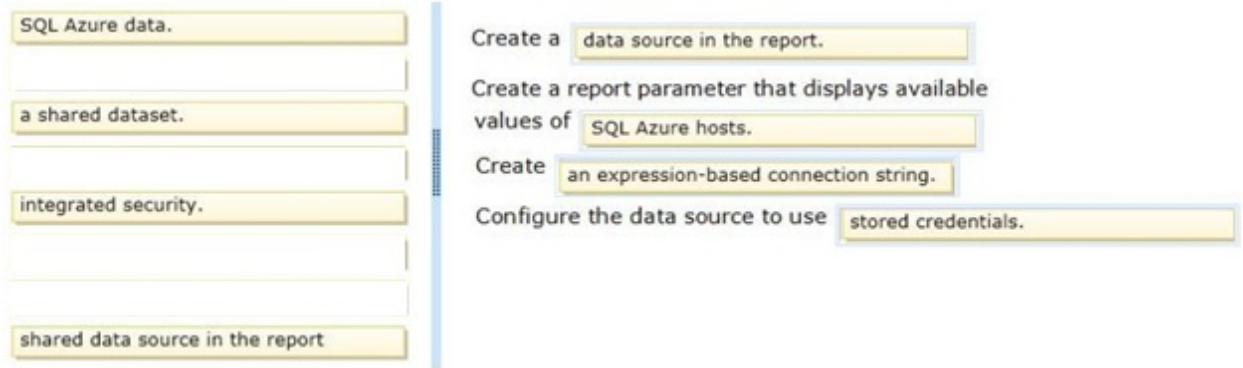
TOTAL QUESTIONS 316/8CASE STUDY

Question: 1

DRAG DROP
You are designing a SQL Server Reporting Services (SSRS) solution.
A report project must access multiple SQL Azure databases. Each database is on a different host. The databases have identical schema and security configurations.
You have the following requirements:
The report must support subscriptions.
Users must be able to select the host when running the report.
What should you do?
To answer, drag the appropriate phrase or phrases from the list to the correct location or locations in the answer area. (Answer choices may be used once, more than once, or not all.)



Answer:



Explanation:
Note:
* To include data in a report, you must first createdata connections, also known asdata sources, and then create datasets.
* A data connection includes the data source type, connection information, and the type of credentials to use. There are two types of data sources: embedded and shared. An embedded data source is defined in the report and used only by that report (fits this scenario). A shared data source is defined independently from a report and can be used by multiple reports.
* Built-in data extensions include the following data connection types:

Microsoft SQL Server
Microsoft SQL Server Analysis Services
Microsoft SharePoint List
Windows Azure SQL Database
Etc.
* Expression-based connection strings are evaluated at run time. For example, you can specify the data source as a parameter, include the parameter reference in the connection string, and allow the user to choose a data source for the report.
* Credentials You provide the credentials that are needed to access the data. The data source owner must have granted you the appropriate permissions to access both the data source and the specific data on the data source.
Reference: Data Connections, Data Sources, and Connection Strings (SSRS)

Question: 2

DRAG DROP
You are designing a SQL Server Reporting Services (SSRS) solution.
An existing report aggregates data from a SQL Server database in a chart.
You need to use the chart in a new report and ensure that other users can use the chart in their reports.
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.)

Answer:

Box 1:

Box 2:

Box 3:

Explanation:
Note:
* In Report Designer, after you create tables, charts, and other report items in a project, you can publish them asreport partsto a report server or SharePoint site integrated with a report server so that you and others can reuse them in other reports.
* . By using Report Builder, you can customize and update reports that were created in SQL Server Data Tools (SSDT) Report Designer.
* InReport Builder, IT pros and power users can create powerful operational reports, and reusable report parts and shared datasets.

Incorrect:
* (incorrect) Power View, a feature of SQL Server 2012 Reporting Services Add-in for Microsoft SharePoint Server 2010 Enterprise Edition, is an interactive data exploration, visualization, and presentation experience. It provides intuitive ad-hoc reporting for business users such as data analysts, business decision makers, and information workers. They can easily create and interact with views of data from data models based on PowerPivot workbooks published in a PowerPivot Gallery, or tabular models deployed to SQL Server 2012 Analysis Services (SSAS) instances. Power View is a browser-based Silverlight application launched from SharePoint Server 2010 that enables users to present and share insights with others in their organization through interactive presentations.
Reference: Getting Started with Report Builder
Reference: Report Parts in Report Designer (SSRS)

Question: 3

You are designing a subscription strategy for a SQL Server Reporting Services (SSRS) report.
You have an application that populates a table with user-specific subscription schedules and report formats.
You need to ensure that users can receive reports by email according to their preferences.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Create a standard subscription for each record in the table.
B. Create a data-driven subscription for each record in the schedule table.
C. Create one data-driven subscription. Schedule the subscription to frequently retrieve user preferences.
D. Create a standard subscription for each subscription schedule.

Answer: C

Question: 4

You are modifying a SQL Server Reporting Services (SSRS) report for a SQL Server Analysis Services (SSAS) cube. The report defines a report parameter of data type Date/Time with which users can filter the report by a single date. The parameter value cannot be directly used to filter the Multidimensional Expressions (MDX) query for the dataset.
You need to ensure that the report displays data filtered by the user-entered value. You must achieve this goal by using the least amount of development effort.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Edit the dataset query parameter. Change the Value property of the report parameter to an expression that uses the same format as the date dimension member key value.
B. Edit the dataset query parameter. Change the Name property of the dataset query parameter so that it points to a name value for each date dimension member.
C. Edit the dataset query parameter. Create a subcube subquery that uses the StrToSet MDX function and accepts the report parameter value.
D. Change the dataset query to Transact-SQL (T-SQL). Use the OPENROWSET function to query the cube. Output the cube results to the T-SQL query and use a Convert function to change the report parameter value into the same format as the date dimension member.

Answer: A

Question: 5

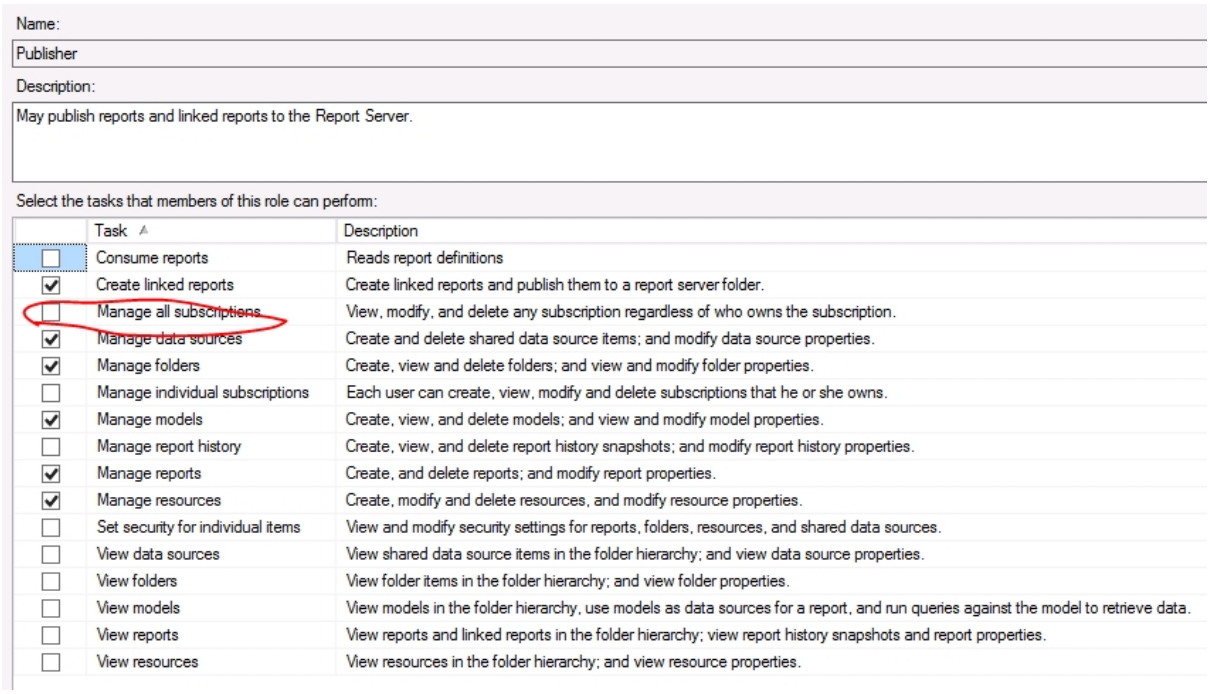
You administer a SQL Server Reporting Services (SSRS) instance in native mode.
You need to assign a predefined role that meets the following requirements:

Members of the role must be able to update shared data sources.
Members of the role must not be able to consume reports or manage subscriptions.
The role must provide only the minimum permissions required.
Which role should you assign? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. The Content Manager role
B. The Read and Process role
C. The Publisher role
D. The Browser role

Answer: C

Explanation:



Question: 6

You are designing a strategy for an enterprise reporting solution that uses SQL Server Reporting Services (SSRS).
Many of the SSRS reports will use common utilities and functions, including the following:
Report utility functions and business logic in code
Standardized report formatting properties such as fonts and colors for report branding
Formatting may change and new functions may be added as the reporting solution evolves.
You need to create a strategy for deploying the formatting and code across the entire enterprise reporting solution.
You must also ensure that reports can be easily updated to reflect formatting and function changes.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Create a report as a template. Apply standardized formatting to the template. Store code in the Code section of the template.
B. Build a web service that retrieves formatting properties and runs code. Call the web service through a report dataset.
C. Store the formatting properties and code in database objects. Use stored procedures to populate a default value for report parameters and map each parameter to a corresponding formatting property.

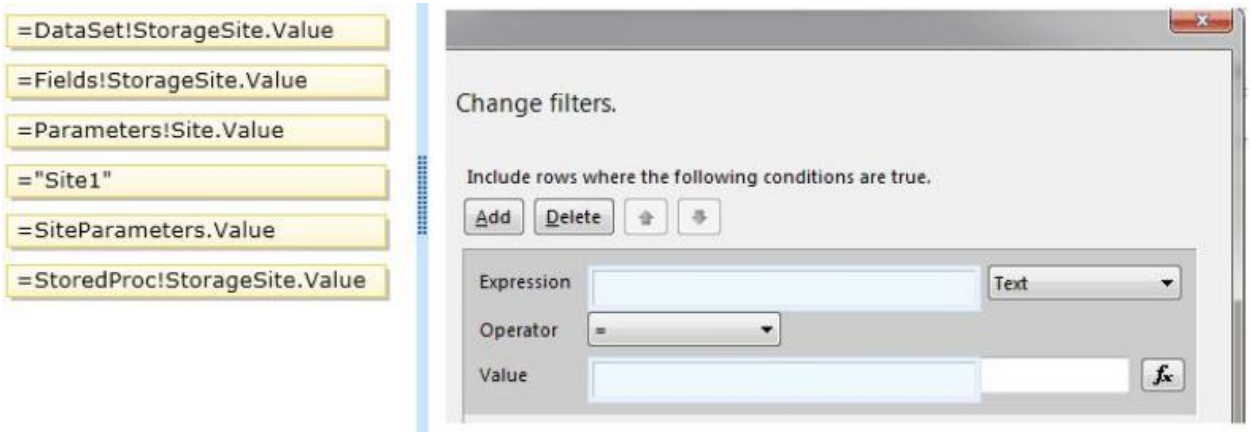
D. Create an assembly that contains formatting properties and code. Deploy the assembly on the Reporting Server and reference the assembly from each report.

Answer: D

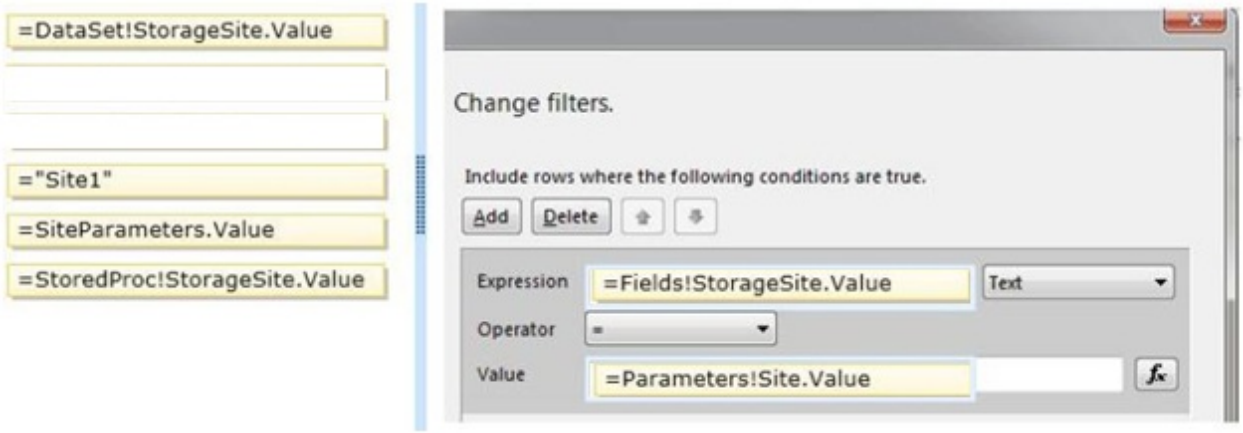
Question: 7

DRAG DROP
You are designing a dataset for a SQL Server Reporting Services (SSRS) report.
The report includes the report items displayed in the following graphic.

The dataset is sourced from a commonly used stored procedure in an inventory data mart hosted in a SQL Azure database.
It returns the status for all products across all storage sites. The report must display data for the storage site that is selected by the Site report parameter. You cannot change the stored procedure code.
You need to filter the dataset to use only data specific to the selected site.
How should you configure the filter?
To answer, drag the appropriate expression or expressions to the correct location or locations in the answer area. (Answer choices may be used once, more than once, or not all.)



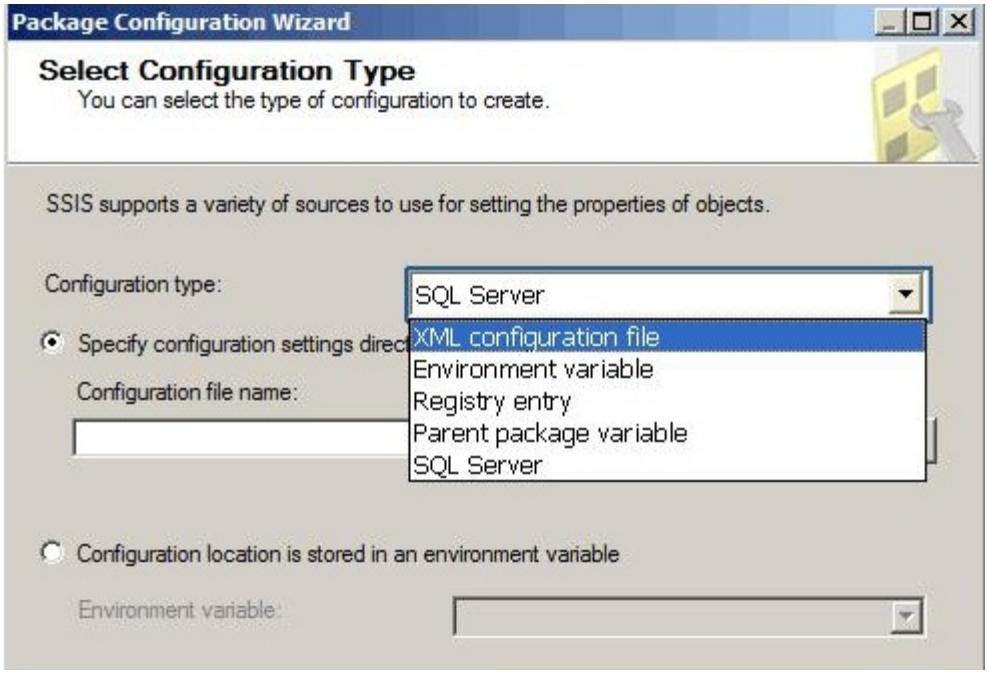
Answer:



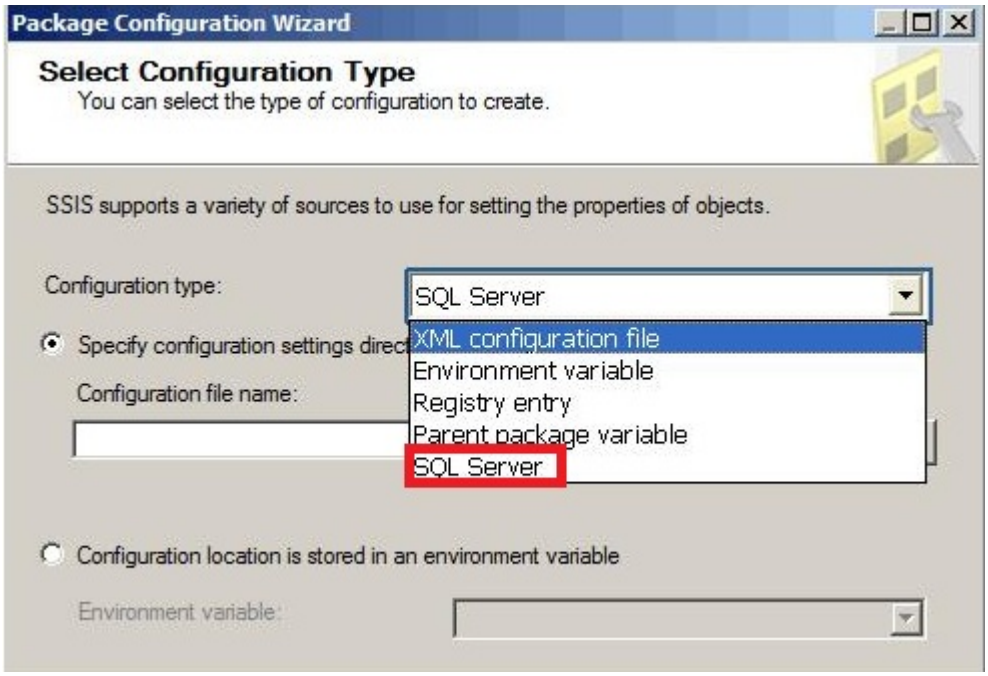
Explanation:
Note:
To set a filter on the dataset
1. Open a report in Design view.
2. Right-click a dataset in the Report Data pane and then clickDataset Properties. TheDataset Propertiesdialog box opens.
3. ClickFilters. This displays the current list of filter equations. By default, the list is empty.
4. ClickAdd. A new blank filter equation appears.
5. InExpression, type or select the expression for the field to filter. To edit the expression, click the expression (fx) button.
Box 1: Here we use the Fields expression.
6. From the drop-down box, select the data type that matches the type of data in the expression you created in step 5.
7. In theOperatorbox, select the operator that you want the filter to use to compare the values in theExpressionbox and theValuebox. The operator you choose determines the number of values that are used from the next step.
Box 2: we test for equality.
8. In theValuebox, type the expression or value against which you want the filter to evaluate the value inExpression.
Box 3: we compare to the value of the Parameter named Site.
9. Click OK.
Reference: How to: Add a Filter (Reporting Services)

Question: 8

HOTSPOT
You are designing a SQL Server Integration Services (SSIS) package configuration strategy.
The package configuration must meet the following requirements:
Include multiple properties in a configuration.
Support several packages with different configuration settings.
You need to select the appropriate configuration.
Which configuration type should you use?
To answer, select the appropriate option from the drop-down list in the dialog box.



Answer:



Explanation:
Note:
Package Configuration Types
The following table describes the package configuration types.
* SQL Server table
A table in a SQL Server database contains the configuration. The table can include multiple configurations.
* XML configuration file
An XML file contains the configurations. The XML file can include multiple configurations.
* Environment variable
An environment variable contains the configuration.
* Registry entry
A Registry entry contains the configuration.

* Parent package variable
A variable in the package contains the configuration. This configuration type is typically used to update properties in child packages.
Reference: Package Configurations

Question: 9

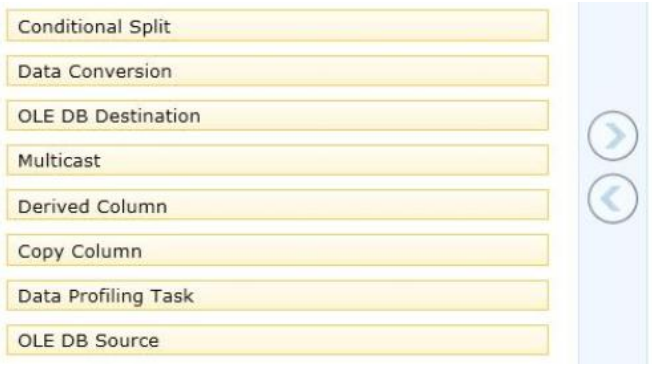
You are designing a SQL Server Integration Services (SSIS) solution. The solution will contain an SSIS project that includes several SSIS packages. Each SSIS package will define the same connection managers and variables.
You have the following requirements:
Ensure that the deployment model supports changing the content of connection strings by using parameters at execution time.
Ensure that the deployment model automatically starts from calls to the catalog.start_execution stored procedure in the SSISDB database.
Maximize performance at execution time.
Minimize development effort.
You need to design a solution that meets the requirements.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Use a project deployment model. Modify connection manager properties to use project parameters. Ensure that the SSISDB database is created.
B. Use a project deployment model. Configure connections in an XML configuration file referenced by an environment variable that corresponds to the SQL Server environment of each SSIS package.
C. Use a package deployment model. Use a SQL Server package configuration with a common filter. Change the contents of the SSIS Configurations table at runtime.
D. Use a package deployment model. Save each SSIS package to a file share that can be accessed from all environments.

Answer: A

Question: 10

DRAG DROP
You are creating a SQL Server Integration Services (SSIS) package to populate a fact table from a source table. The fact table and source table are located in a SQL Azure database. The source table has a price field and a tax field. The OLE DB source uses the data access mode of Table.
You have the following requirements:
The fact table must populate a column named TotalCost that computes the sum of the price and tax columns.
Before the sum is calculated, any records that have a price of zero must be discarded.
You need to create the SSIS package in SQL Server Data Tools.
In what sequence should you order four of the listed components for the data flow task? (To answer, move the appropriate components from the list of components to the answer area and arrange them in the correct order.)



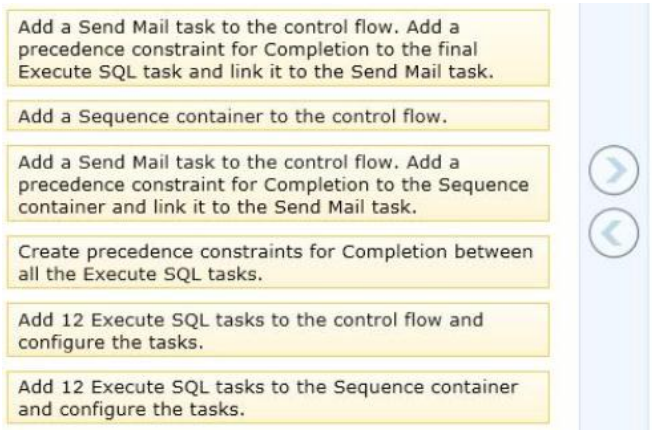
Answer:

Box 1: Ole DB Source
Box 2: Conditional Split
Disregard lines with a 0 sum.
Box 3: Derived column
Box 4: Ole DB Destination

Explanation:
Note:
* You configure a Data Flow task by adding components to the Data Flow tab. SSIS supports three types of data flow components:
Sources: Where the data comes from
Transformations: How you can modify the data
Destinations: Where you want to put the data
* Creating a data flow includes the following steps:
/ Adding one or more sources to extract data from files and databases, and add connection managers to connect to the sources.
/ Adding the transformations that meet the business requirements of the package. A data flow is not required to include transformations.
Some transformations require a connection manager. For example, the Lookup transformation uses a connection manager to connect to the database that contains the lookup data.
/ Connecting data flow components by connecting the output of sources and transformations to the input of transformations and destinations.
/ Adding one or more destinations to load data into data stores such as files and databases, and adding connection managers to connect to the data sources.
/ Configuring error outputs on components to handle problems.
At run time, row-level errors may occur when data flow components convert data, perform a lookup, or evaluate expressions. For example, a data column with a string value cannot be converted to an integer, or an expression tries to divide by zero. Both operations cause errors, and the rows that contain the errors can be processed separately using an error flow.
/ Include annotations to make the data flow self-documenting.
* The capabilities of transformations vary broadly. Transformations can perform tasks such as updating, summarizing, cleaning, merging, and distributing data. You can modify values in columns, look up values in tables, clean data, and aggregate column values.
* The Data Flow task encapsulates the data flow engine that moves data between sources and destinations, and lets the user transform, clean, and modify data as it is moved. Addition of a Data Flow task to a package control flow makes it possible for the package to extract, transform, and load data.
A data flow consists of at least one data flow component, but it is typically a set of connected data flow components: sources that extract data; transformations that modify, route, or summarize data; and destinations that load data.

Question: 11

DRAG DROP
You are designing a SQL Server Integration Services (SSIS) package to execute 12 Transact-SQL (T-SQL) statements on a SQL Azure database.
The T-SQL statements may be executed in any order. The T-SQL statements have unpredictable execution times.
You have the following requirements:
The package must maximize parallel processing of the T-SQL statements.
After all the T-SQL statements have completed, a Send Mail task must notify administrators.
You need to design the SSIS package.
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.)



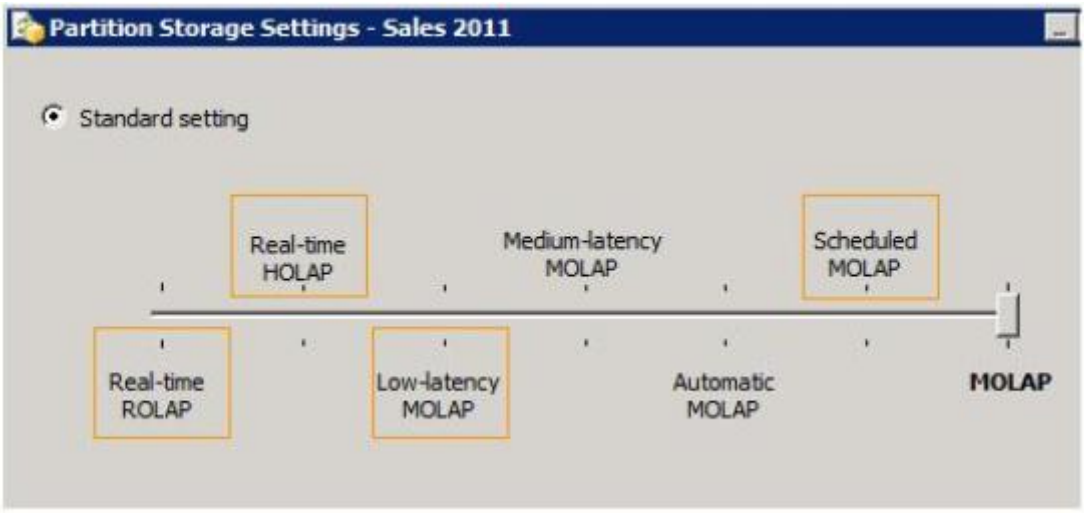
Answer:

Box 1: Add a Sequence container to the control flow.
Box 2: Add 12 Execute SQL tasks to the Sequence container and configure the tasks.
Box 3: Add a Send mail task to the control flow. Add a precedence constraint for Completion to the to the Sequence container and link it to the Send Mail task.

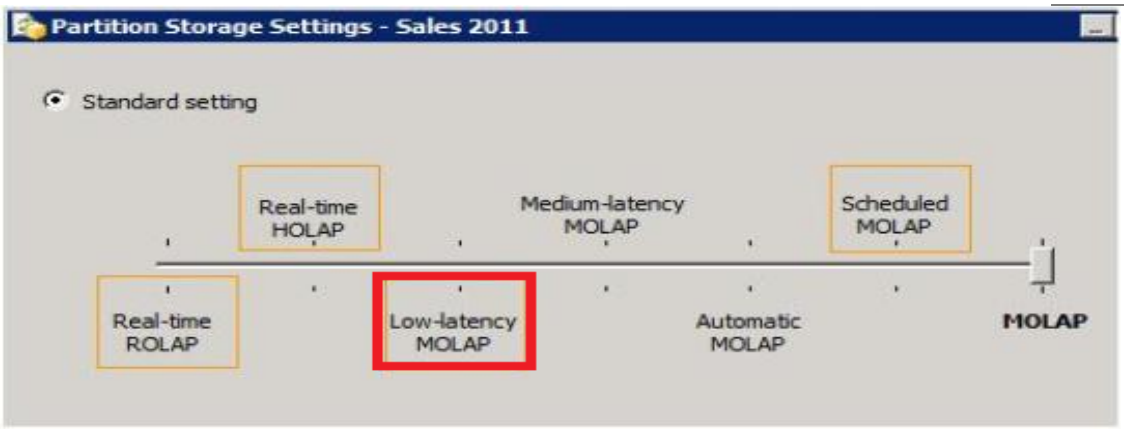
Explanation:
Note:
The Sequence container defines a control flow that is a subset of the package control flow. Sequence containers group the package into multiple separate control flows, each containing one or more tasks and containers that run within the overall package control flow.
Reference: Sequence Container

Question: 12

HOTSPOT
You are configuring the partition storage settings for a SQL Server Analysis Services (SSAS) cube.
The partition storage must meet the following requirements:
Optimize the storage of source data and aggregations in the cube.
Use proactive caching.
Drop cached data that is more than 30 minutes old.
Update the cache when data changes, with a silence interval of 10 seconds.
You need to select the partition storage setting.
Which setting should you select?
To answer, select the appropriate setting in the answer area.



Answer:

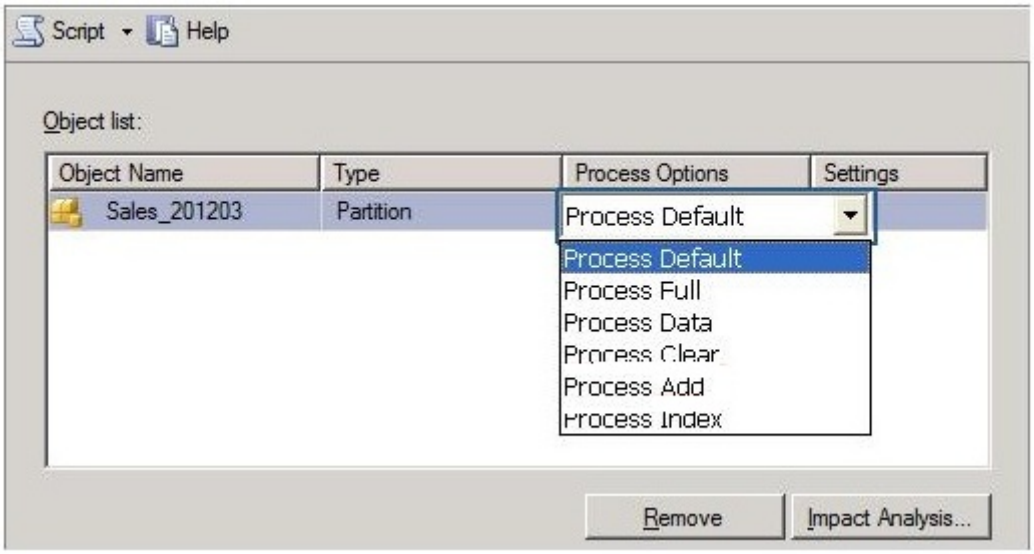


Explanation:
http://msdn.microsoft.com/en-us/library/ms175646.aspx
Low Latency MOLAP
Detail data and aggregations are stored in multidimensional format. The server listens for notifications of changes to the data and switches to real-time ROLAP while MOLAP objects are reprocessed in a cache. A silence interval of at least 10 seconds is required before updating the cache. There is an override interval of 10 minutes if the silence interval is not attained. Processing occurs automatically as data changes with a target latency of 30 minutes after the first change.
This setting would typically be used for a data source with frequent updates when query performance is somewhat more important than always providing the most current data. This setting automatically processes MOLAP objects whenever required after the latency interval. Performance is slower while the MOLAP objects are being reprocessed.

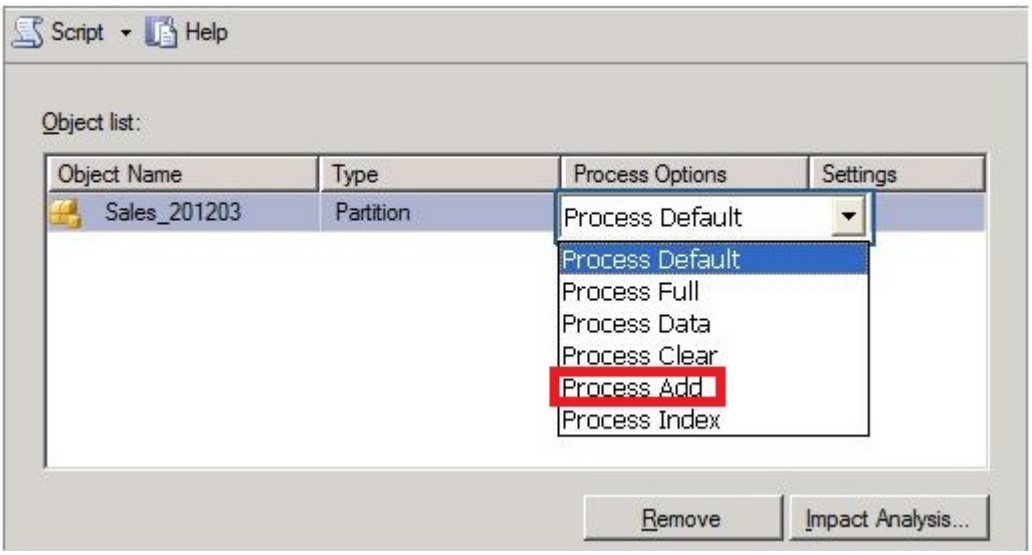
Question: 13

HOTSPOT
A SQL Server Analysis Services (SSAS) cube contains billions of rows of data and is rapidly increasing in size. The cube consists of a single measure group and a single partition. The cube is currently processed by using the Process Full process option.
You have the following requirements to reduce the cube processing time:
Partition the measure group by month.
Create a staging table that contains only data which is more recent than the last time the cube was processed.
Do not include data updates or deletions in the staging table.
Insert records from the staging table into the appropriate partition.
You need to change the process option to meet the requirements.

Which process option should you choose?
To answer, select the appropriate option from the drop-down list in the dialog box.



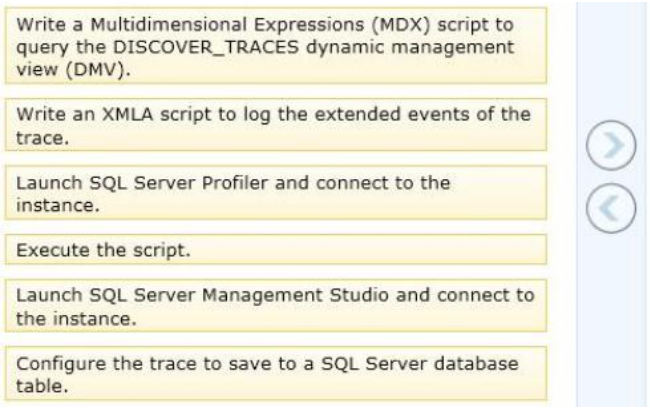
Answer:



Explanation:
Note:
ProcessAdd
ProcessAdd applies only to dimensions and partitions.
ProcessAdd is a new processing option for dimensions that did not exist in Analysis Services 2000. It essentially optimizes ProcessUpdate for the scenario where only new members are added. ProcessAdd never deletes or updates existing members. It only adds new members. The user can restrict the dimension table so that ProcessAdd reads only the new rows.
ProcessAdd for partitions is the equivalent of incremental partition processing in Analysis Services 2000. The user typically specifies an alternate fact table or a filter condition pointing to the new rows. ProcessAdd internally creates a temporary partition, processes it with the specified fact data, and merges it into the target partition.
Reference: Analysis Services 2005 Processing Architecture

Question: 14

DRAG DROP
You administer a SQL Server Analysis Services (SSAS) instance.
You need to capture a continuous log of detailed event and subevent durations and custom trace events from queries executed in the SSAS instance.
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.)



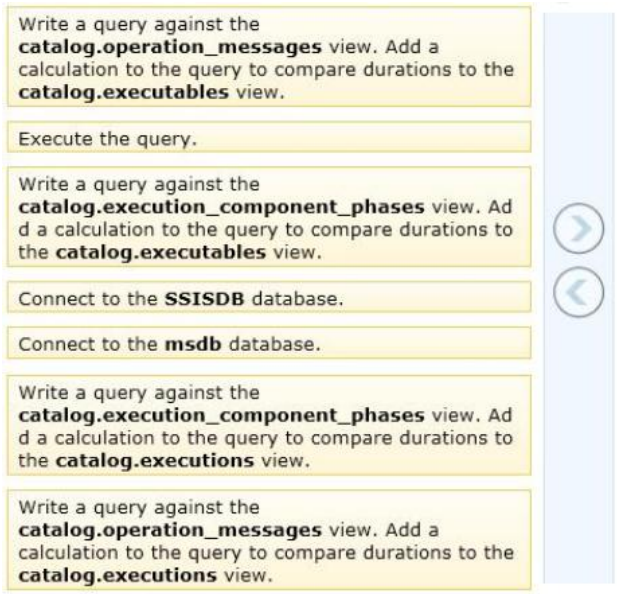
Answer:

Box 1: Write an XMLA script to log the extended events of the trace.
Box 2: Launch SQL Server Management Studio and connect to the instance.
Box 3: Execute the script.

Explanation:
Note:
* Auditing an instance of SQL Server or a SQL Server database involves tracking and logging events that occur on the system. The SQL Server Audit object collects a single instance of server- or database-level actions and groups of actions to monitor. The audit is at the SQL Server instance level. You can have multiple audits per SQL Server instance. The Server Audit Specification object belongs to an audit. You can create one server audit specification per audit, because both are created at the SQL Server instance scope.
* Trace events can be started and captured using SQL Server Profiler, , or can be started from an XMLA command as SQL Server Extended Events and later analyzed.
* Extended Event tracing is enabled using a similar XMLA create object script.
Reference: Analysis Services Trace Events

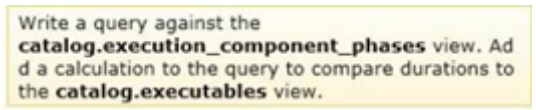
Question: 15

DRAG DROP
You plan to deploy a SQL Server Integration Services (SSIS) project by using the project deployment model.
You need to monitor control flow tasks to determine whether any of them are running longer than usual.
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.)



Answer:

Box 1: Connect to the SSISDB database.
Box 2:



Box 3: Execute the query

Explanation:
Note:
* execution_component_phases
Displays the time spent by a data flow component in each execution phase.
* The following example uses the catalog.execution_component_phases view to find the total amount of time that a specific package has spent executing in all phases (active_time), and the total elapsed time for the package (total_time).

```
use SSISDB
select package_name, task_name, subcomponent_name, execution_path,
SUM(DATEDIFF(ms,start_time,end_time)) as active_time,
DATEDIFF(ms,min(start_time), max(end_time)) as total_time
from catalog.execution_component_phases
where execution_id = 1841
group by package_name, task_name, subcomponent_name, execution_path
order by package_name, task_name, subcomponent_name, execution_path
```

* catalog.executables
This view displays a row for each executable in the specified execution.
An executable is a task or container that you add to the control flow of a package.
*(incorrect) catalog.executions (SSISDB Database)
Displays the instances of package execution in the Integration Services catalog. Packages that are executed with the Execute Package task run in the same instance of execution as the parent package.
This view displays a row for each instance of execution in the catalog.
* (incorrect) catalog.operation_messages
Displays messages that are logged during operations in the Integration Services catalog.
This view displays a row for each message that is logged during an operation in the catalog. The message can be generated by the server, by the package execution process, or by the execution engine.
Reference: catalog.execution_component_phases

Reference: catalog.executables

Question: 16

You are designing a partitioning strategy for a large fact table in a data warehouse.
Tens of millions of new records are loaded into the data warehouse weekly, outside of business hours. Most queries are generated by reports and by cube processing. Data is frequently queried at the day level and occasionally at the month level.
You need to partition the table to maximize the performance of queries.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Partition the fact table by month, and compress each partition.
B. Partition the fact table by week.
C. Partition the fact table by year.
D. Partition the fact table by day, and compress each partition.

Answer: D

Question: 17

You are designing an extract, transform, load (ETL) process for loading data from a SQL Server database into a large fact table in a data warehouse each day with the prior day's sales data.
The ETL process for the fact table must meet the following requirements:
Load new data in the shortest possible time.
Remove data that is more than 36 months old.
Ensure that data loads correctly.
Minimize record locking.
Minimize impact on the transaction log.
You need to design an ETL process that meets the requirements.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Partition the destination fact table by date. Insert new data directly into the fact table and delete old data directly from the fact table.
B. Partition the destination fact table by date. Use partition switching and staging tables both to remove old data and to load new data.
C. Partition the destination fact table by customer. Use partition switching both to remove old data and to load new data into each partition.
D. Partition the destination fact table by date. Use partition switching and a staging table to remove old data. Insert new data directly into the fact table.

Answer: B

Question: 18

DRAG DROP
You are administering a SQL Server Analysts Services (SSAS) database on a server. The database hosts a financial cube based on a SQL Azure database.
You need to grant write access to the financial cube for all users in the group USA\PowerUsers.
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.)

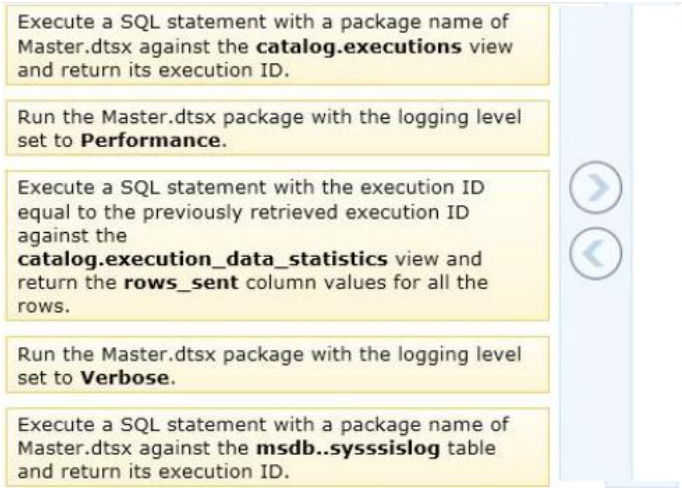
Answer:

Box 1: In the SQL Management Studio (SSMS), connect to the SSAS instance on the server.
Box 2: Create a new role for the database.
Box 3: Add the USA\PowerUsers group to the role. Set the cube access for the role to Read and Process.

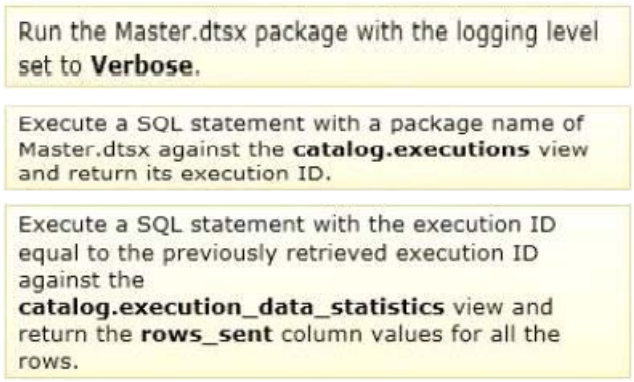
Explanation:
Note:
* A member of the server role for Microsoft SQL Server Analysis Services, or a member of a database role that has Full Control (Administrator) permissions in a particular database, can create a database role that only has permission to process specified objects within the database. Giving a database role permission to process a database object lets an administrator delegate the task of processing certain objects, without also granting extraneous permissions to the user who is performing the processing.
* To give a database role permission to process a cube
1. In SQL Server Management Studio, connect to the instance of Analysis Services, expandRolesfor the appropriate database in Object Explorer, and then double-click a database role (or right-click Rolesand selectNew Roleto create a new database role). If this is a new role, make sure that you enter a name for the role in theRole namebox.
2. ClickCubesin theSelect a Pagepane, locate the cube in theCubelist, and then select theProcesscheck box for the cube.
3. Click theOKbutton.
* There is no write permissions on a cube.
Reference: Grant Process Permissions on an Analysis Services Multidimensional Database

Question: 19

DRAG DROP
You are validating whether a SQL Server Integration Services (SSIS) package named Master.dtsx in the SSIS catalog is executing correctly.
You need to display the number of rows in each buffer passed between each data flow component of the package.
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.)



Answer:



Explanation:
http://sqlblog.com/blogs/jamie_thomson/archive/2012/09/03/36994.aspx

Question: 20

You are creating a Multidimensional Expressions (MDX) calculation for Projected Revenue in a cube.
For Customer A, Projected Revenue is defined as 150 percent of the Total Sales for the customer. For all other customers, Projected Revenue is defined as 110 percent of the Total Sales for the customer.
You need to calculate the Projected Revenue as efficiently as possible.
Which calculation should you use? (More than one answer choice may achieve the goal. Select the BEST answer.)

A.
```
CREATE MEMBER CurrentCube.[Measures].[Projected Revenue]
AS [Measures].[Total Sales];
SCOPE ([Customer].[Customer Name].MEMBERS, [Measures].[Projected Revenue]);
  [Measures].[Total Sales] * 1.1;
  IF [Customer].[Customer Name].CurrentMember.Name = "Customer A"
    THEN [Measures].[Total Sales] * 1.5
  END IF;
END SCOPE;
```

B.
```
CREATE MEMBER CurrentCube.[Measures].[Projected Revenue]
AS CASE WHEN [Customer].[Customer Name].CurrentMember.Name = "Customer A"
THEN [Measures].[Total Sales] * 1.5
ELSE [Measures].[Total Sales] * 1.1 END
```

C.
```
CREATE MEMBER CurrentCube.[Measures].[Projected Revenue]
AS [Measures].[Total Sales] * 1.1;
SCOPE ([Customer].[Customer Name].&[Customer A], [Measures].[Projected Revenue]);
  THIS = [Measures].[Total Sales] * 1.5;
END SCOPE;
```

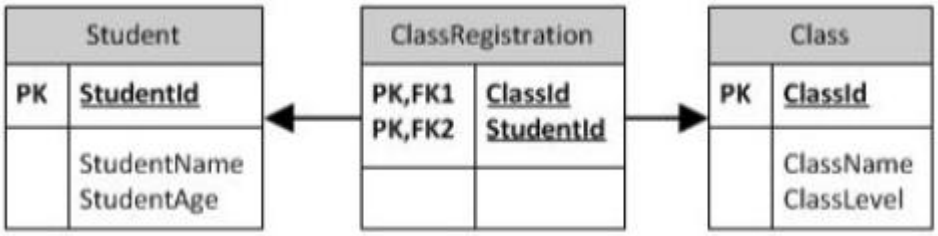
D.
```
CREATE MEMBER CurrentCube.[Measures].[Projected Revenue]
AS [Measures].[Total Sales] * 1.1;
SCOPE ([Customer].[Customer Name].MEMBERS, [Measures].[Projected Revenue]);
  [Customer].[Customer Name].&[Customer A] = [Measures].[Total Sales] * 1.5;
END SCOPE;
```

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

Answer: C

Question: 21

You are developing the database schema for a SQL Server Analysis Services (SSAS) BI Semantic Model (BISM). The BISM will be based on the schema displayed in the following graphic.



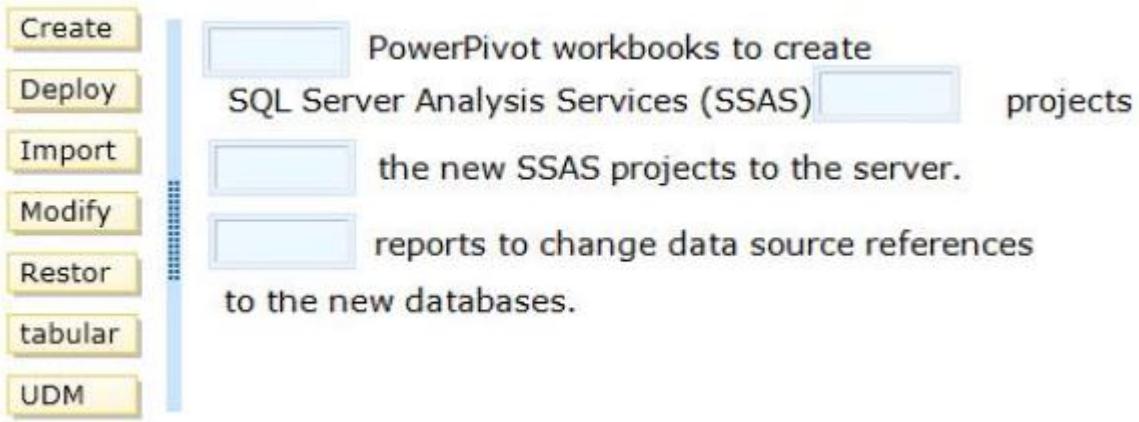
You have the following requirements:
Ensure that queries of the data model correctly display average student age by class and average class level by student.
Minimize development effort.
You need to design the data model.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Create a multidimensional project and define measures and a reference relationship.
B. Create a tabular project and define calculated columns.
C. Create a multidimensional project and define measures and a many-to-many dimensional relationship.
D. Create a tabular project and define measures.

Answer: C

Question: 22

DRAG DROP
You are designing a self-service business intelligence and reporting environment.
Business analysts will create and publish PowerPivot for Microsoft Excel workbooks and create reports by using SQL Server Reporting Services (SSRS) and Power View. When the data models become more complex and the data volume increases, the data models will be replaced by IT-hosted server-based models.
You have the following requirements:
Maintain the self-service nature of the reporting environment.
Reuse existing reports.
Add calculated columns to the data models.
You need to create a strategy for implementing this process.
What should you do?
To answer, drag the appropriate term or terms to the correct location or locations in the answer area. (Answer choices may be used once, more than once, or not all.)



Answer:

Box 1: Import
Box 2: tabular
Box 3: Deploy
Box 4: Modify

Explanation:
You can see that the audiences for these two approaches are different: Tabular models are for IT professionals, while PowerPivot models are for business users. And keep in mind you can import a PowerPivot workbook to create a new tabular product. For example, a business user might create a solution using PowerPivot. By restoring the workbook, IT can add features that are not supported in PowerPivot, such as roles to grant read permission to different groups of users. Additionally, recognition by IT that the model is important to the organization may prompt them to import the workbook into a tabular project and take ongoing responsibility for developing the model.

Question: 23

You are modifying a star schema data mart that feeds order data from a SQL Azure database into a SQL Server Analysis Services (SSAS) cube. The data mart contains two large tables that include flags and indicators for some orders. There

are 100 different flag columns, each with 10 different indicator values. Some flags reuse indicators. The tables both have a granularity that matches the fact table.
You have the following requirements:
Allow users to slice data by all flags and indicators.
Modify the date dimension table to include a surrogate key of a numeric data type and add the surrogate key to the fact table.
Use the most efficient design strategy for cube processing and queries.
You need to modify the schema.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Define the surrogate key as an INT data type. Combine the distinct flag/indicator combinations into a single dimension.
B. Define the surrogate key as an INT data type. Create a single fact dimension in each table for its flags and indicators.
C. Define the surrogate key as a BIGINT data type. Combine the distinct flag/indicator combinations into a single dimension.
D. Define the surrogate key as a BIGINT data type. Create a single fact dimension in each table for its flags and indicators.

Answer: A

Question: 24

You are defining a named set by using Multidimensional Expressions (MDX) in a sales cube.
The cube includes a Product dimension that contains a Category hierarchy and a Color attribute hierarchy.
You need to return only the blue products in the Category hierarchy.
Which set should you use? (More than one answer choice may achieve the goal. Select the BEST answer.)

A.
```
CrossJoin
  (
    [Product].[Product Category].[Product Name].Members,
     [Product].[Color].&[Blue]
  )
```

B.
```
Filter
  (
    [Product].[Product Category].[Product Name].Members,
     ([Product].[Color].&[Blue], [Measures].[Sales Amount]) > 0
  )
```

C.
```
Exists
  (
    [Product].[Product Category].[Product Name].Members,
     [Product].[Color].&[Blue]
  )
```

D.
```
Generate
  (
    [Product].[Color].&[Blue],
     [Product].[Model Name].[Model Name].Members, ALL
  )
```

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

Answer: C

Question: 25

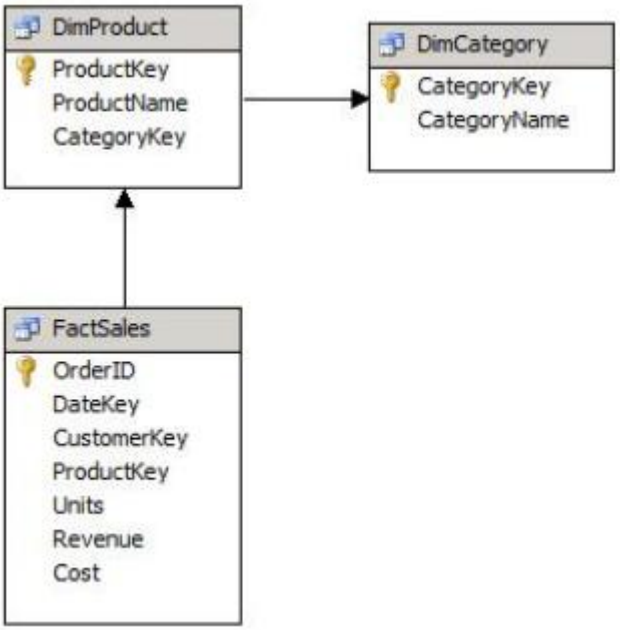
An existing cube dimension that has 30 attribute hierarchies is performing very poorly. You have the following requirements:
Implement drill-down browsing.
Reduce the number of attribute hierarchies but ensure that the information contained within them is available to users on demand.
Optimize performance.
You need to redesign the cube dimension to meet the requirements.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. set the AggregateFunction property to Sum on all measures. Use the SCOPE statement in a Multidimensional Expressions (MDX) calculation to tune the aggregation types.
B. Set the AttributeHierarchyOptimizedState property to FullyOptimized on the attribute hierarchies.
C. Create user-defined hierarchies. For the attributes sourced by the levels of the user-defined hierarchies, set the RelationshipType property to Rigid. Run incremental processing.
D. Remove as many attribute hierarchies as possible from the dimension. Reintroduce the information in the attribute hierarchies as properties. Implement natural hierarchies and set the AttributeHierarchyVisible property to False for attributes used as levels in the natural hierarchies.

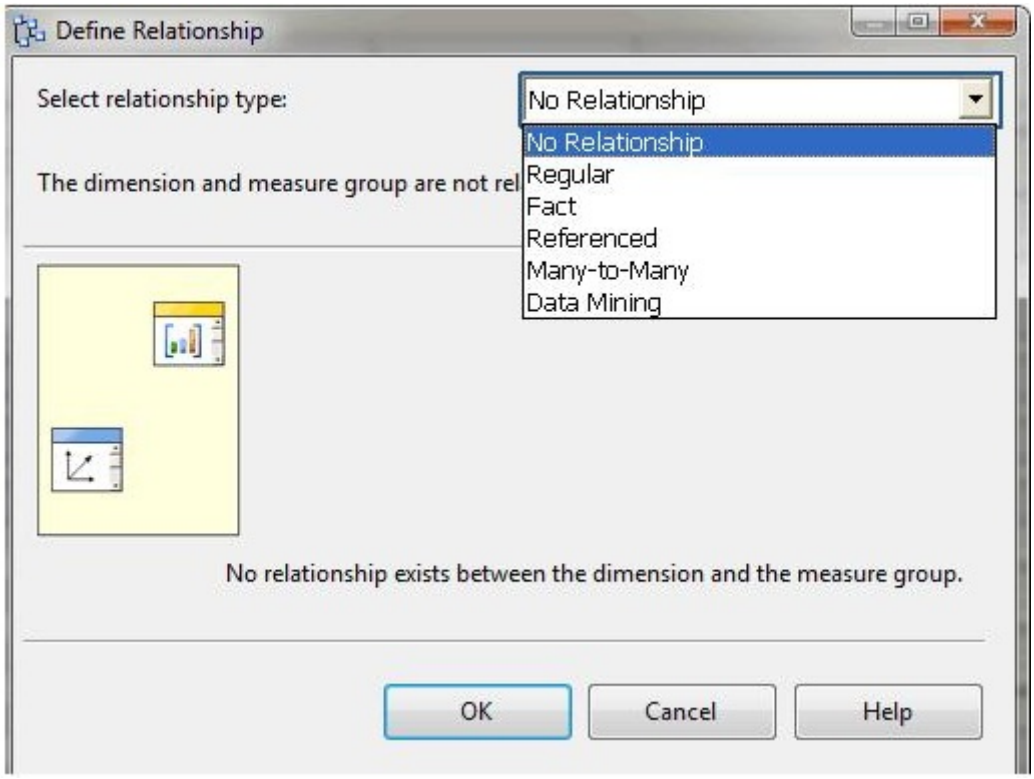
Answer: D

Question: 26

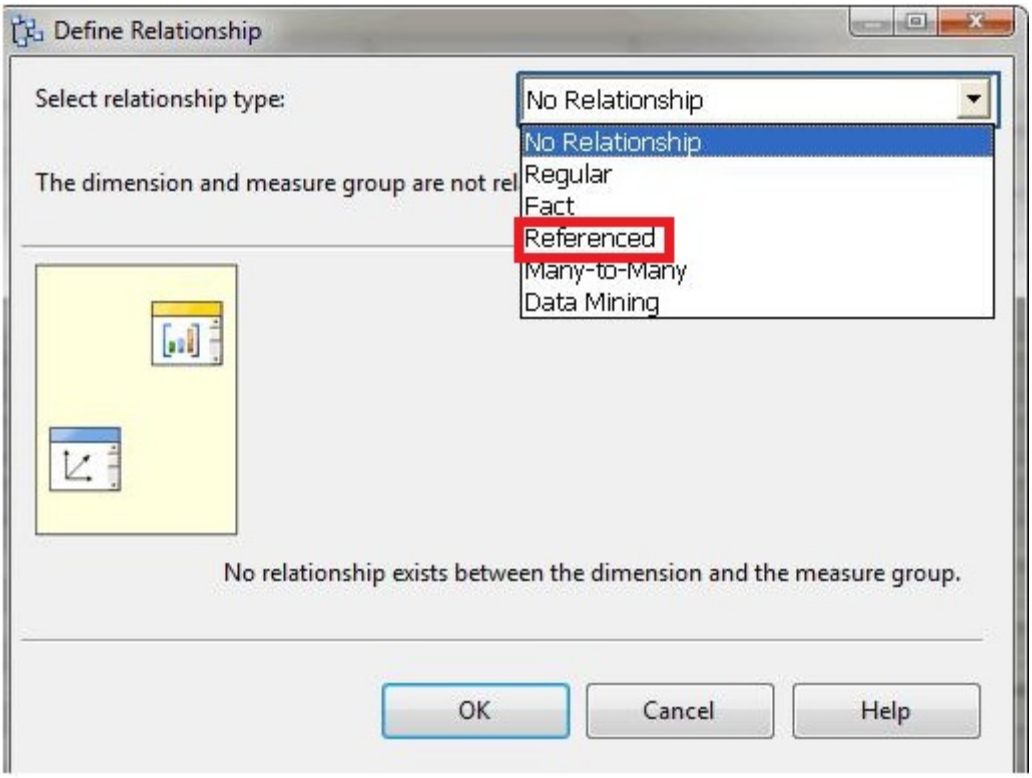
HOTSPOT
You are developing a SQL Server Analysis Services (SSAS) cube. A dimension named Category is based on the DimCategory table.
A subset of the data source view is shown in the following graphic.



You need to relate the Category dimension to the Sales measure group.
Which relationship type should you choose?
To answer, select the appropriate option from the drop-down list in the dialog box.



Answer:



Explanation:
Note:
Referenced Relationship
Link a dimension to a fact table indirectly through a dimension that is linked directly through a primary key–foreign key relationship.

Question: 27

You are designing a partitioning strategy for a large fact table in a Manufacturing data warehouse.
Tens of millions of new inventory fact records are loaded into the data warehouse weekly, outside of business hours. Most queries against the database are generated by reports and by cube processing. Data is frequently queried at the day level and occasionally at the month level.

A. Partition the inventory fact table by month, and compress each partition.
B. Partition the inventory fact table by day, and compress each partition.
C. Partition the inventory fact table by year.
D. Partition the inventory fact table by week.

Answer: B

Question: 28

A SQL Server Analysis Services (SSAS) cube contains a large measure group. The fact table supporting the measure group is loaded with new data throughout the day.
You have the following requirements:
Ensure that the cube displays current data as quickly as possible.
Maximize availability of the cube.
Maximize query performance for all aggregation levels.
You need to choose a partitioning strategy that meets the requirements.

Which partitioning strategy should you choose? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Create one partition for the current day that uses multidimensional OLAP (MOLAP) with proactive caching as a storage mode.
B. Create one partition for the current month that uses hybrid OLAP (HOLAP) as a storage mode.
C. Create one partition for the current day that uses relational OLAP (ROLAP) as a storage mode.
D. Create one partition for the current day that uses multidimensional OLAP (MOLAP) as a storage mode. Process the partition each night.

Answer: A

Question: 29

You are designing an extract, transform, load (ETL) process for loading data from a SQL Azure database into a large fact table in a data warehouse each day with the prior day's sales data.
The ETL process for the fact table must meet the following requirements:
Load new data in the shortest possible time.
Remove data that is more than 36 months old.
Minimize record locking.
Minimize impact on the transaction log.
You need to design an ETL process that meets the requirements.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Partition the fact table by date. Insert new data directly into the fact table and delete old data directly from the fact table.
B. Partition the fact table by customer. Use partition switching both to remove old data and to load new data into each partition.
C. Partition the fact table by date. Use partition switching and staging tables both to remove old data and to load new data.
D. Partition the fact table by date. Use partition switching and a staging table to remove old data. Insert new data directly into the fact table.

Answer: C

Question: 30

DRAG DROP
You are validating whether a SQL Server Integration Services (SSIS) package named Master.dtsx in the SSIS catalog is executing correctly.
You need to display the number of rows in each buffer passed between each data flow component of the package.
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.)

Execute a SQL statement with a package name of Master.dtsx against the **catalog.executions** view and return its execution ID.

Run the Master.dtsx package with the logging level set to **Basic**.

Execute a SQL statement with the execution ID equal to the previously retrieved execution ID against the **catalog.execution_data_statistics** view and return the **rows_sent** column values for all the rows.

Run the Master.dtsx package with the logging level set to **Verbose**.

Execute a SQL statement with a package name of Master.dtsx against the **catalog.event_messages** view and return its execution ID.

Answer:

Box 1:

Run the Master.dtsx package with the logging level set to **Verbose**.

Box 2:

Execute a SQL statement with a package name of Master.dtsx against the **catalog.executions** view and return its execution ID.

Box 3:

Execute a SQL statement with the execution ID equal to the previously retrieved execution ID against the **catalog.execution_data_statistics** view and return the **rows_sent** column values for all the rows.

Explanation:

Note:

* You are going to become very very familiar indeed with [catalog].[executions]. It is a view that provides a record of all package executions on the server and, most importantly, it contains [execution_id] – the identifier for each execution and the field to which all other objects herein will be related.

Question: 31

DRAG DROP

You plan to deploy a SQL Server Integration Services (SSIS) project by using the project deployment model.

You need to monitor control flow tasks to determine whether any of them are running longer than usual.

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.)

Write a query against the **catalog.execution_component_phases** view. Add a calculation to the query to compare durations to the **catalog.executions** view.

Write a query against the **catalog.execution_data_statistics** view. Add a calculation to the query to compare durations to the **catalog.executions** view.

Write a query against the **catalog.execution_data_statistics** view. Add a calculation to the query to compare durations to the **catalog.execution_data_taps** view.

Write a query against the **catalog.execution_component_phases** view. Add a calculation to the query to compare durations to the **catalog.execution_data_taps** view.

Execute the query.

Connect to the **SSISDB** database.

Connect to the **msdb** database.

Answer:

Box 1: Connect to the SSISDB database.
Box 2:

Write a query against the **catalog.execution_component_phases** view. Add a calculation to the query to compare durations to the **catalog.executables** view.

Box 3: Execute the query

Explanation:
Note:
* execution_component_phases
Displays the time spent by a data flow component in each execution phase.
* The following example uses the catalog.execution_component_phases view to find the total amount of time that a specific package has spent executing in all phases (active_time), and the total elapsed time for the package (total_time).

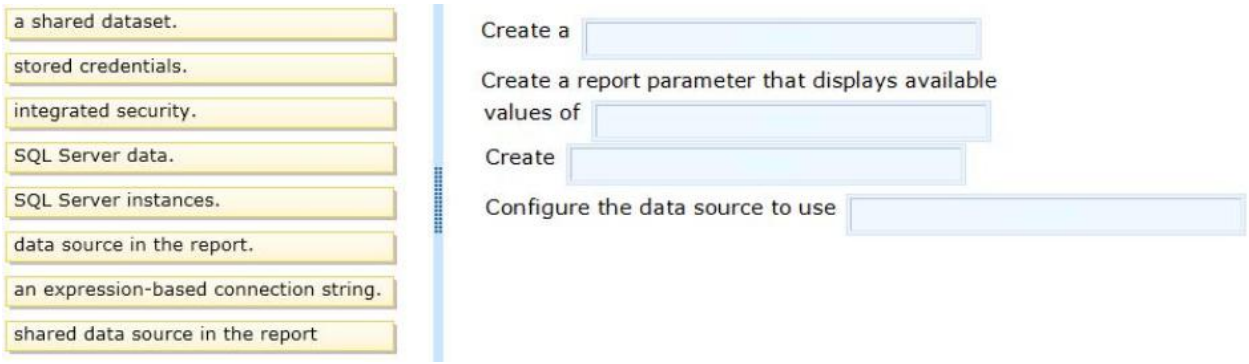
```
Use SSISDB
Select package_name, task_name, subcomponent_name, execution_path,
SUM(DATEDIFF(ms,start_time,end_time)) as active_time,
DATEDIFF(ms,min(start_time), max(end_time)) as total_time
From catalog.execution_component_phases
Where execution_id = 1841
Group by package_name, task_name, subcomponent_name, execution_path
Order by package_name, task_name, subcomponent_name, execution_path
```

* catalog.executables
This view displays a row for each executable in the specified execution.
An executable is a task or container that you add to the control flow of a package.
*(incorrect) catalog.executions (SSISDB Database)
Displays the instances of package execution in the Integration Services catalog. Packages that are executed with the Execute Package task run in the same instance of execution as the parent package.
This view displays a row for each instance of execution in the catalog.
* (incorrect) catalog.operation_messages
Displays messages that are logged during operations in the Integration Services catalog.
This view displays a row for each message that is logged during an operation in the catalog. The message can be generated by the server, by the package execution process, or by the execution engine.

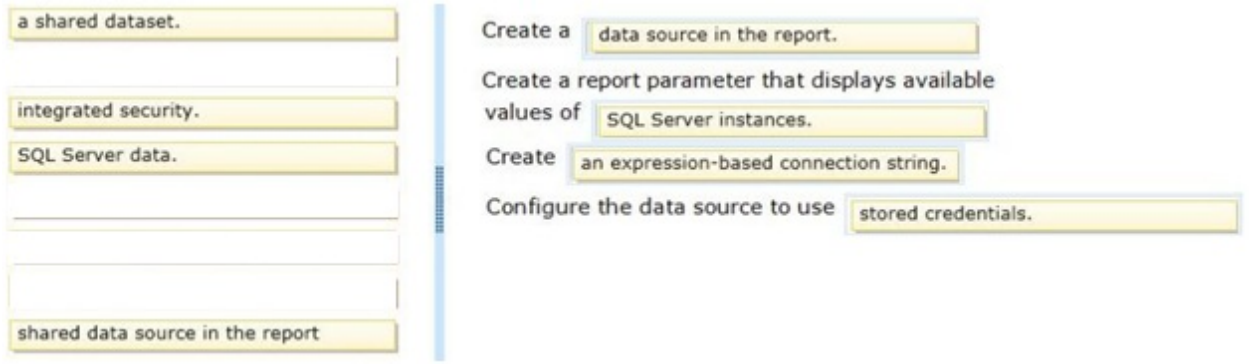
Reference: catalog.execution_component_phases
Reference: catalog.executables

Question: 32

DRAG DROP
You are designing a SQL Server Reporting Services (SSRS) solution.
A report project must access multiple SQL Server databases. Each database is on a different instance. The databases have identical schema and security configurations.
You have the following requirements:
The report must support subscriptions.
Users must be able to select the host when running the report.
What should you do?
To answer, drag the appropriate phrase or phrases from the list to the correct location or locations in the answer area. (Answer choices may be used once, more than once, or not all.)



Answer:



Explanation:
Note:
The report need a data source.
Through a report parameter the user can select among the available SQL Server instances.
This selection is used through an expression-based connection string.
Authentication is handled through stored credentials.

Question: 33

DRAG DROP
You are designing a SQL Server Reporting Services (SSRS) solution.
An existing report aggregates data from a SQL Azure database in a chart.

You need to use the chart in a new report and ensure that other users can use the chart in their reports.
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,)

Answer:

Box 1:

Box 2:

Box 3:

Explanation:
Note:
* In Report Designer, after you create tables, charts, and other report items in a project, you can publish them asreport partsto a report server or SharePoint site integrated with a report server so that you and others can reuse them in other reports.
* . By using Report Builder, you can customize and update reports that were created in SQL Server Data Tools (SSDT) Report Designer.
* InReport Builder, IT pros and power users can create powerful operational reports, and reusable report parts and shared datasets.
Incorrect:
* (incorrect) Power View, a feature of SQL Server 2012 Reporting Services Add-in for Microsoft SharePoint Server 2010 Enterprise Edition, is an interactive data exploration, visualization, and presentation experience. It provides intuitive ad-hoc reporting for business users such as data analysts, business decision makers, and information workers. They can easily create and interact with views of data from data models based on PowerPivot workbooks published in a PowerPivot Gallery, or tabular models deployed to SQL Server 2012 Analysis Services (SSAS) instances. Power View is a browser-based Silverlight application launched from SharePoint Server 2010 that enables users to present and share insights with others in their organization through interactive presentations.
Reference: Getting Started with Report Builder
Reference: Report Parts in Report Designer (SSRS)

Question: 34

You are designing a multidimensional OLAP (MOLAP) cube.
The MOLAP cube must meet the following requirements:
Ensure that workloads for aggregation tuning can be automatically collected.
Require the least amount of effort to perform manual aggregation tuning.
Minimize impact on the performance of previously tuned queries.
You need to design a MOLAP cube that meets the requirements.

What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Enable SQL Server Analysis Services (SSAS) query logging. Run the Usage-Based Optimization Wizard to generate aggregations. Merge the wizard results with existing aggregation designs.
B. Set up multiple partitions. Run the Aggregation Design Wizard periodically for each measure group. After the wizard finishes, discard the old aggregation design and accept the new one.
C. Set up multiple partitions. Run the Aggregation Design Wizard on each partition. Schedule the aggregations by using an XMLA script in SQL Server Agent.
D. Set the AggregationUsage property of all attributes based on natural keys to Full.

Answer: A

Question: 35

You are designing a fact table in a SQL Server database.
The fact table must meet the following requirements:
Include a columnstore index.
Allow users to choose up to 10 dimension tables and up to five facts at one time.
Maximize performance of queries that aggregate measures by using any of the 10 dimensions.
Support billions of rows.
Use the most efficient design strategy.
You need to design the fact table to meet the requirements.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

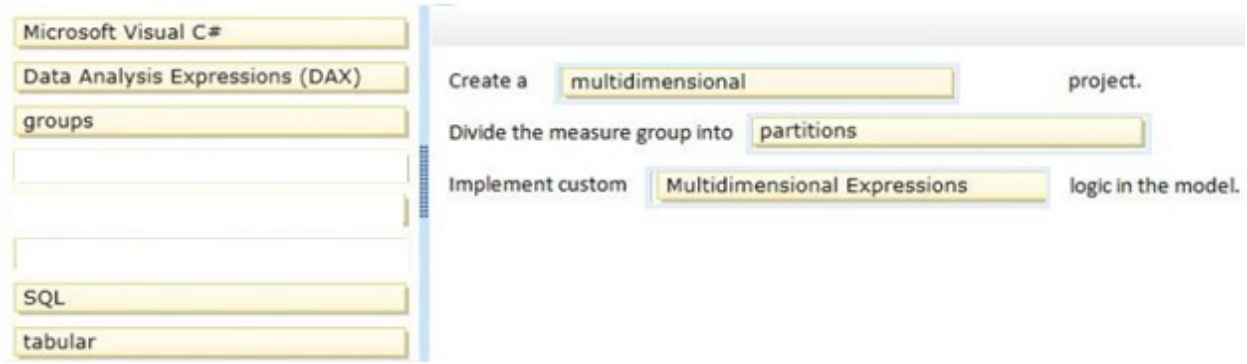
A. Design a fact table with 5 dimensional key columns and 10 measure columns. Place the columnstore index on the dimensional key columns.
B. Design a fact table with 5 dimensional key columns and 10 measure columns. Place the columnstore index on the measure columns.
C. Design a fact table with 10 dimensional key columns and 5 measure columns. Place the columnstore index on the dimensional key columns and the measure columns.
D. Design a fact table with 10 dimensional key columns and 5 measure columns. Place the columnstore index on only the measure columns.

Answer: C

Question: 36

DRAG DROP
You are designing a SQL Server Analysis Services (SSAS) data model on a very large data warehouse.
The fact tables in the data warehouse contain terabytes of data in tens of billions of rows.
You must support the following features:
Complex attribute/column relationships
Advanced calculations in the data model definition
Advanced calculations using logic deployed in a custom assembly
You need to choose the correct SSAS design strategy.
What should you do?
To answer, drag the appropriate term or terms to the correct location or locations in the answer area. (Answer choices may be used once, more than once, or not all.)

Answer:



Explanation:
Note:
Box 1:
The primary reason for building an Analysis Services multidimensional model is to achieve fast performance of ad hoc queries against business data. A multidimensional model is composed of cubes and dimensions that can be annotated and extended to support complex query constructions.
Box 2:
A partition is a container for a portion of the measure group data. Partitions are not seen from MDX queries; all queries reflect the whole content of the measure group, regardless of how many partitions are defined for the measure group. The data content of a partition is defined by the query bindings of the partition, and by the slicing expression.
Box 3:
Multidimensional Expressions (MDX) is the query language that you use to work with and retrieve multidimensional data in Microsoft SQL Server 2005 Analysis Services (SSAS).

Question: 37

You are creating a Multidimensional Expressions (MDX) calculation for Projected Revenue in a cube.
For Product A, Projected Revenue is defined as 150 percent of the Total Sales of the product. For all other products, Projected Revenue is defined as 110 percent of the Total Sales of the product.
You need to calculate the Projected Revenue as efficiently as possible.
Which calculation should you use? (More than one answer choice may achieve the goal. Select the BEST answer.)

A.
```
CREATE MEMBER CurrentCube.[Measures].[Projected Revenue]
AS CASE WHEN [Product].[Product Name].CurrentMember.Name = "Product A"
THEN [Measures].[Total Sales] * 1.5
ELSE [Measures].[Total Sales] * 1.1 END
```

B.
```
CREATE MEMBER CurrentCube.[Measures].[Projected Revenue]
AS [Measures].[Total Sales] * 1.1;
SCOPE ([Product].[Product Name].MEMBERS, [Measures].[Projected Revenue]);
  [Product].[Product Name].&[Product A] = [Measures].[Total Sales] * 1.5;
END SCOPE;
```

C.
```
CREATE MEMBER CurrentCube.[Measures].[Projected Revenue]
AS [Measures].[Total Sales] * 1.1;
SCOPE ([Product].[Product Name].&[Product A], [Measures].[Projected Revenue]);
  THIS = [Measures].[Total Sales] * 1.5;
END SCOPE;
```

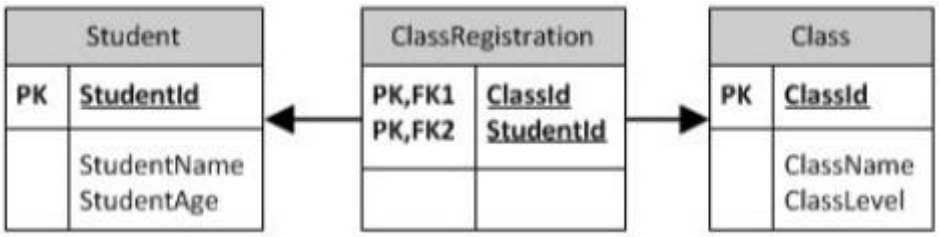
D.
```
CREATE MEMBER CurrentCube.[Measures].[Projected Revenue]
AS [Measures].[Total Sales];
SCOPE ([Product].[Product Name].MEMBERS, [Measures].[Projected Revenue]);
  [Measures].[Total Sales] * 1.1;
  IF [Product].[Product Name].CurrentMember.Name = "Product A"
    THEN [Measures].[Total Sales] * 1.5
  END IF;
END SCOPE;
```

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

Answer: C

Question: 38

You are developing the database schema for a SQL Server Analysis Services (SSAS) BI Semantic Model (BISM). The BISM will be based on the schema displayed in the following graphic.



You have the following requirements:
Ensure that queries of the data model correctly display average student age by class.
Ensure that the solution supports role-based security and partitions.
Minimize development effort.
You need to design the data model.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Create a multidimensional project and define measures and a many-to-many dimensional relationship. Create partitions in SQL Server Management Studio (SSMS).
B. Create a multidimensional project and define measures and a reference relationship. Create partitions in SQL

Server Data Tools (SSDT).
C. Create a tabular project and define measures. Create partitions in SQL Server Data Tools (SSDT).
D. Create a tabular project and define calculated columns. Create partitions in SQL Server Management Studio (SSMS).

Answer: A

Question: 39

You are defining a named set by using Multidimensional Expressions (MDX) in a sales cube.
The cube includes a Customer dimension that contains a Geography hierarchy and a Gender attribute hierarchy.
You need to return only the female customers in the Geography hierarchy.
Which set should you use? (More than one answer choice may achieve the goal. Select the BEST answer.)

A.
```
Exists
   (
     [Customer].[Customer Geography].[Customer Name].Members,
      [Customer].[Gender].&[Female]
   )
```

B.
```
Generate
   (
     [Customer].[Gender].&[Female],
      [Customer].[Model Name].[Model Name].Members, ALL
   )
```

C.
```
Filter
   (
     [Customer].[Customer Geography].[Customer Name].Members,
      ([Customer].[Gender].&[Female], [Measures].[Sales Amount]) > 0
   )
```

D.
```
CrossJoin
   (
     [Customer].[Customer Geography].[Customer Name].Members,
      [Customer].[Gender].&[Female]
   )
```

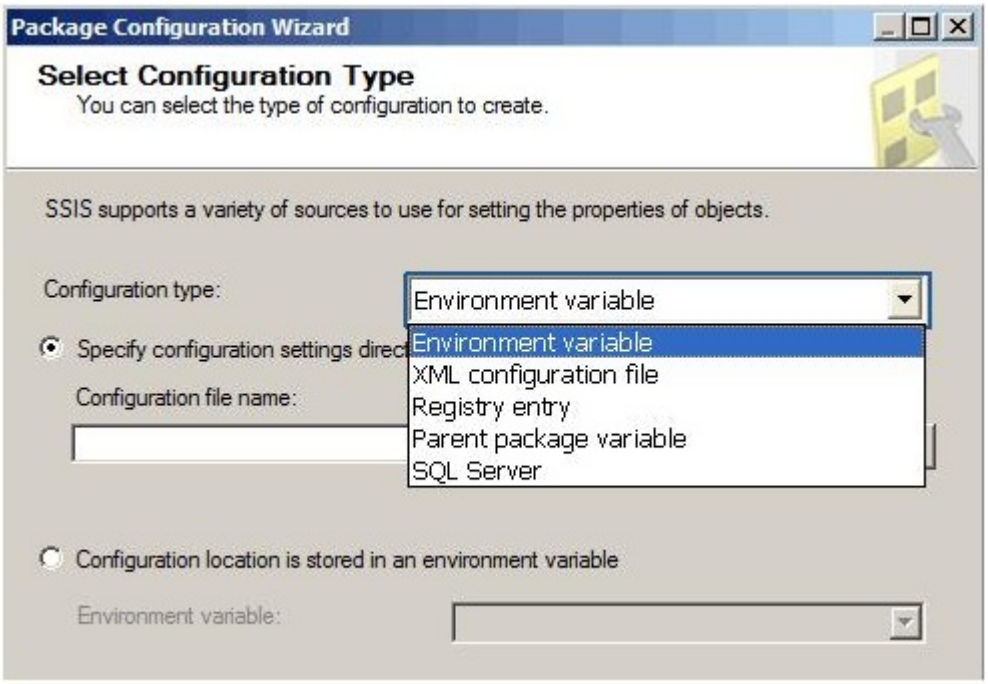
A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

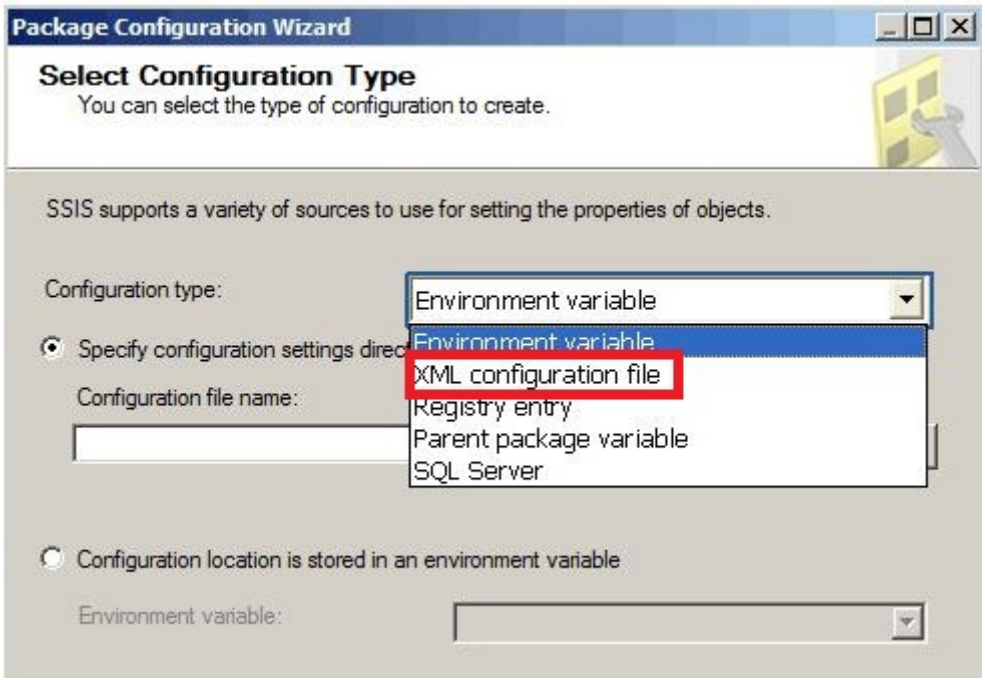
Question: 40

HOTSPOT
You are designing a SQL Server Integration Services (SSIS) package configuration strategy.
The package configuration must meet the following requirements:
Include multiple properties in a configuration.

Force packages to load all settings in the configuration.
Support Encrypting File System (EFS) formats.
You need to select the appropriate configuration.
Which configuration type should you use?
To answer, select the appropriate option from the drop-down list in the dialog box.



Answer:



Explanation:
Note:
Package Configuration Types
The following table describes the package configuration types.
* SQL Server table
A table in a SQL Server database contains the configuration. The table can include multiple configurations.

* XML configuration file
An XML file contains the configurations. The XML file can include multiple configurations.
* Environment variable
An environment variable contains the configuration.
* Registry entry
A Registry entry contains the configuration.
* Parent package variable
A variable in the package contains the configuration. This configuration type is typically used to update properties in child packages.
Reference: Package Configurations

Question: 41

You are designing a SQL Server Integration Services (SSIS) solution that will load multiple Online Transactional Processing (OLTP) data sources into a SQL Server data mart.
You have the following requirements:
Ensure that the process supports the creation of an exception report that details possible duplicate key values, null ratios within columns, and column-length distributions of values.
Ensure that users can generate the exception report in an XML format.
Use the minimum development effort.
You need to design the SSIS solution to meet the requirements.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Use a Data Profiling task. Use a Data Flow task to extract the XML output of the Data Profiling task into a SQL Server table. Query the table to view the exceptions.
B. Use Data Flow tasks to process the clean data.
C. Use a Data Profiling task. Read the exceptions in Data Profile Viewer.
D. Design a stored procedure that examines data for common dirty data patterns. Use an Execute SQL task.

Answer: C

Explanation:
Ref: http://technet.microsoft.com/en-us/library/bb895263.aspx

Question: 42

You are designing a SQL Server Integration Services (SSIS) solution. The solution will contain an SSIS project that includes several SSIS packages. Each SSIS package will define the same connection managers and variables.
You have the following requirements:
The deployment model must support changing the content of connection strings by using parameters at execution time.
The deployment model must automatically log events to the SSISDB database.
Maximize performance at execution time.
You need to design a solution that meets the requirements.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Use a project deployment model. Modify connection manager properties to use project parameters.
B. Use a package deployment model. Save each SSIS package to a file share that can be accessed from all environments.
C. Use a package deployment model. Configure connections in an XML configuration file referenced by an environment variable that corresponds to the SQL Server environment of each SSIS package.

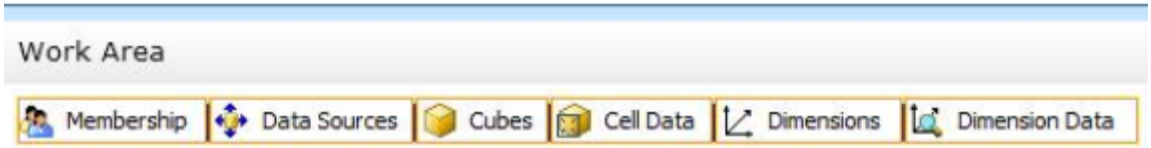
D. Use a project deployment model. Modify connection manager properties to use package parameters.

Answer: A

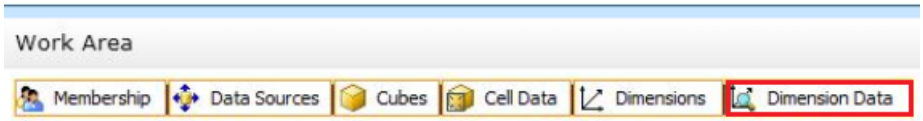
Explanation:
Ref: http://technet.microsoft.com/en-us/library/hh213290.aspx

Question: 43

HOTSPOT
You are setting role permissions for a SQL Server Analysis Service (SSAS) cube.
You plan to grant Read access for specific attribute members only to specific Active Directory security groups.
You need to enter a Multidimensional Expressions (MDX) expression to configure the attribute member access.
On which tab should you enter the MDX expression? To answer, select the appropriate tab in the answer area.



Answer:



Question: 44

You have a SQL Server Reporting Services (SSRS) 2008 instance integrated with an Internet-facing Microsoft SharePoint 2010 farm. PerformancePoint Services and Excel Services are installed and configured.
You need to upgrade to SSRS 2012 with the minimum downtime and hardware requirements.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Migrate SSRS content to a separate instance of SSRS 2012 on the same server.
B. Perform an in-place upgrade of the SSRS environment.
C. Migrate SSRS content to new servers that run SSRS 2012.
D. Install SSRS 2012 on a new SharePoint farm and migrate content to the new farm.

Answer: C

Question: 45

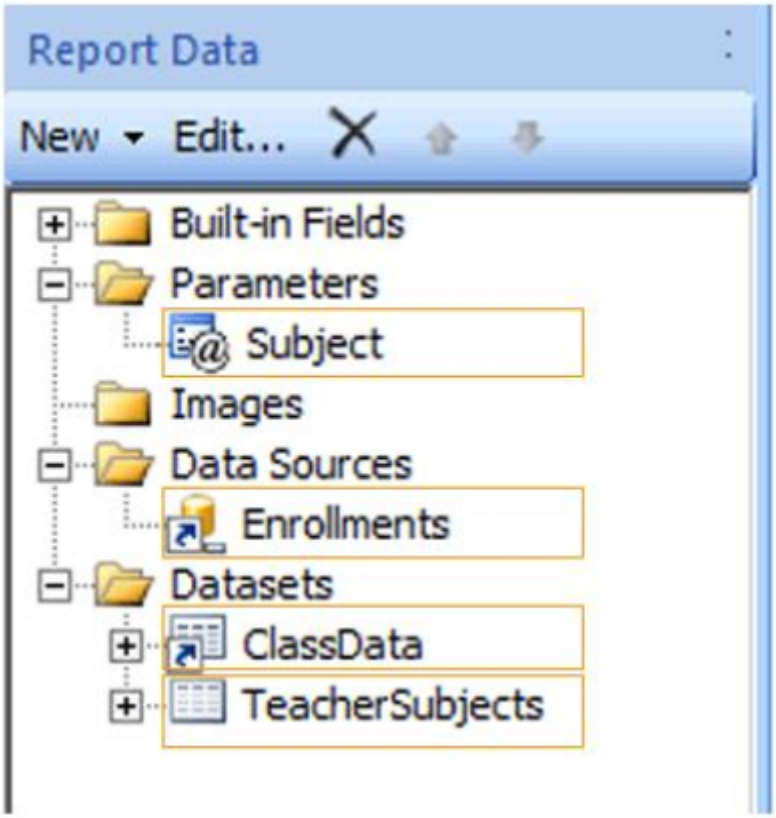
You are redesigning a SQL Server Analysis Services (SSAS) database that contains a cube named Sales. Before the initial deployment of the cube, partition design was optimized for processing time. The cube currently includes five partitions named FactSalesl through FactSales5. Each partition contains from 1 million to 2 million rows.
The FactSales5 partition contains the current year's information. The other partitions contain information from prior years; one year per partition. Currently, no aggregations are defined on the partitions.
You remove fact rows that are more than five years old from the fact table in the data source and configure query logs on the SSAS server.
Several queries and reports are running very slowly.
You need to optimize the partition structure and design aggregations to improve query performance and minimize administrative overhead.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Use the Usage-Based Optimization Wizard to create aggregations for the current partitions.
B. Use the Aggregation Design Wizard to create aggregations for the current partitions.
C. Combine all the partitions into a single partition. Use the Usage-Based Optimization Wizard to create aggregations.
D. Combine all the partitions into a single partition. Use the Aggregation Design Wizard to create aggregations.

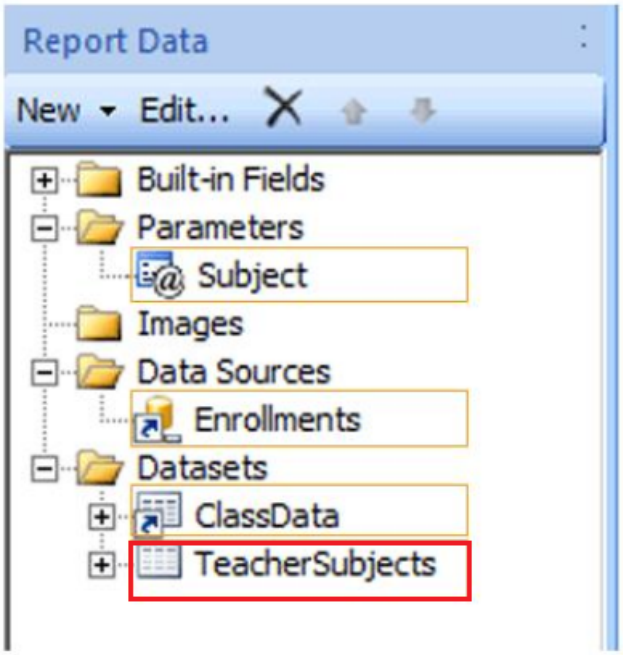
Answer: A

Question: 46

HOTSPOT
A school stores information about teachers, students, classes, and enrollments in a Windows Azure SQL Database database. The database includes a table that maps the user IDs of teachers to the subjects they teach.
Teachers access reports in a SQL Server Reporting Services (SSRS) instance by using their credentials.
You are developing a report that displays a table of class enrollments for a specific subject. The report will prompt teachers to select from their mapped subjects. The table is based on a dataset named ClassData. To minimize report execution time, the ClassData dataset has been configured to cache all class enrollment data.
You need to ensure that the report parameter displays the correct subjects for each teacher.
Which item should you configure? To answer, select the appropriate item in the answer area.



Answer:



Question: 47

A group of report writers develop reports. The report writers currently use Report Builder 1.0 and report models. The report writers are not trained on SQL Server query writing. Their report assignments come from various departments within the organization.
The company is upgrading to SQL Server 2012 with SQL Server Reporting Services (SSRS) in native mode. After the upgrade, reports will retrieve data from a large new data warehouse that will reside on an instance of the SQL Server 2012 Database Engine. Reports for each department will retrieve data from only a subset of the data warehouse tables.
You are designing the data access strategy. You have the following requirements:
Ensure that report writers can create only reports that display data which they have database permissions to view.
Minimize the effort required to update connection strings for all reports developed by the report writers.
Minimize the number of fields visible in a specific report for report writers who work for multiple departments.
You need to design the data access strategy.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Create report models by using SQL Server Data Tools (SSDT). Include data sources and data source views for each department's data requirements. Configure each data source to use integrated security.
B. Create one shared data source that uses integrated security. Create an embedded dataset for each report.
C. Create one shared data source that uses integrated security. Create one shared dataset that includes all tables required by the report writers.
D. Create one shared data source that uses integrated security. Create a shared dataset for each department's data requirements.

Answer: D

Question: 48

A company runs SQL Server Database Engine and SQL Server Reporting Services (SSRS) in native mode. Reports are based on data that is cached in multiple shared datasets. Source data is purged each day at midnight for regulatory compliance purposes. The shared datasets may continue to cache data that should not be used in reports. Shared

report schedules are often paused during nightly server maintenance windows.
Reports must not return purged data.
You need to create a fully automated solution to ensure that reports do not deliver purged data.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Create a shared schedule. Configure the datasets to expire on the shared schedule.
B. Write a script that calls the flushcache method to clear individual items from the SSRS cache. Create a SQL Server Agent job that runs rs.exe with the script as an input file, and schedule the job to run every day after the purge process completes.
C. Create a SQL Server Agent job that uses a Transact-SQL (T-SQL) step to delete the data from the dbo.ExecutionCache table in the ReportServerTempDB database. Schedule the job to run every day after the purge process completes.
D. Republish the cached datasets by using SQL Server Data Tools.

Answer: B

Question: 49

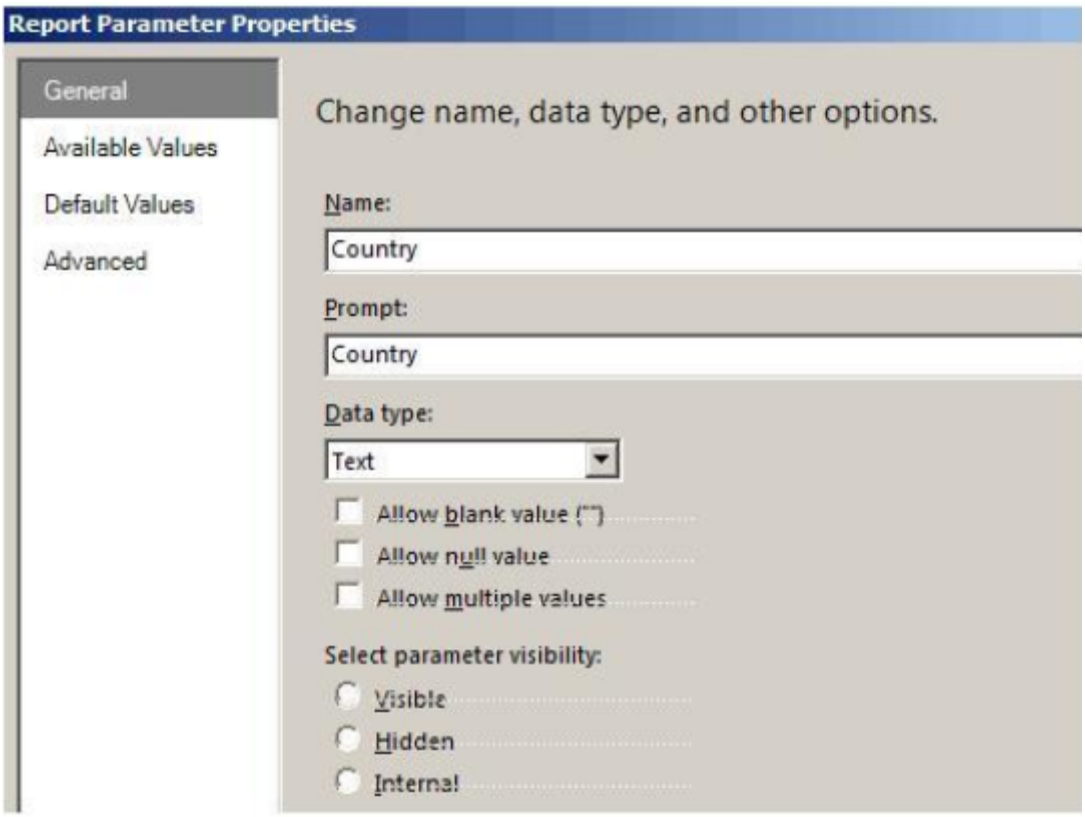
You are designing a complex report that displays sales metrics for a customer hierarchy. The customer hierarchy has six levels and contains approximately 1 million members.
You have the following requirements:
Allow users to easily display and navigate data.
Minimize report processing time.
Simplify the report design and maintenance processes.
You need to design a report that meets the requirements.
How should you design the report? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Retrieve all customers and use drilldown groupings to show or hide hierarchy levels.
B. Add a report part for each hierarchy level.
C. Add a subreport for each hierarchy level.
D. Display only the children of the current hierarchy level and drill through to the selected member.

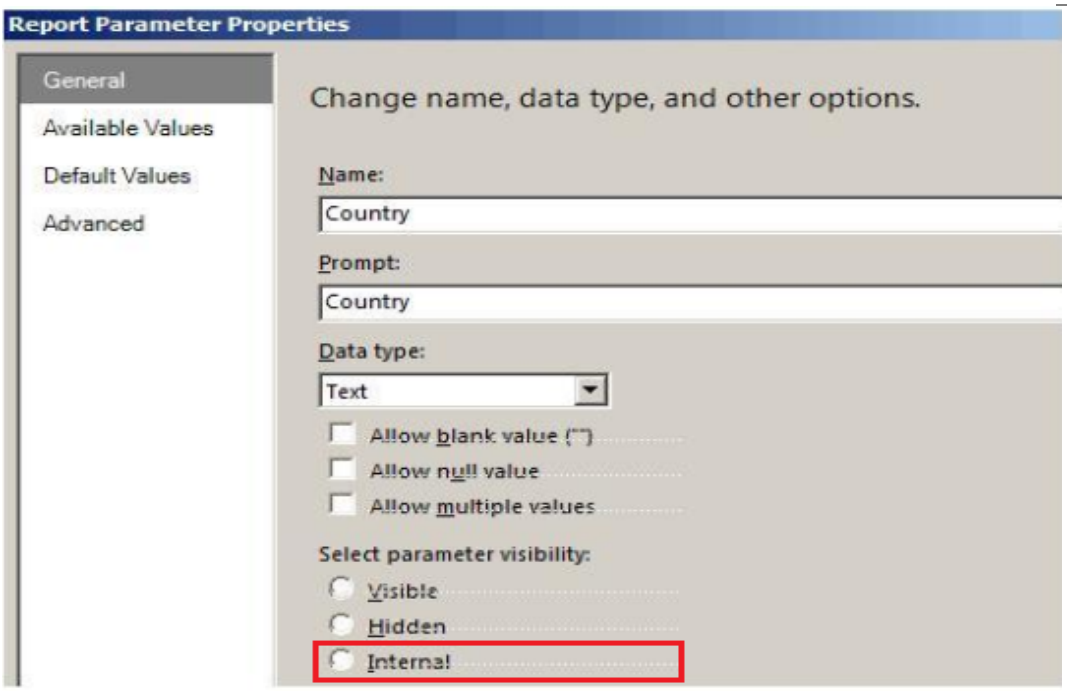
Answer: D

Question: 50

HOTSPOT
You are using a new installation of SQL Server Reporting Services (SSRS) to create three sales reports that consume data from a stored procedure. The stored procedure is defined in a Windows Azure SQL Database.
All reports must pass USA to the Country parameter of the stored procedure. Users cannot change the Country report parameter value.
You need to configure the report parameter properties.
How should you configure the report parameter properties? To answer, select the appropriate setting or settings in the answer area.



Answer:



Question: 51

You deploy a PowerPivot workbook to a PowerPivot Gallery in a Microsoft SharePoint site. Workbook data comes from two different sources: Source A and Source B.

The workbook contains five tables with a total of 20 million rows from Source A, and three small lookup tables from Source B. Data from Source A is updated throughout the day. Data from Source B is updated at 3:00 P.M.

You have the following requirements:

Refresh the PowerPivot workbook with updated lookup data as soon as possible.

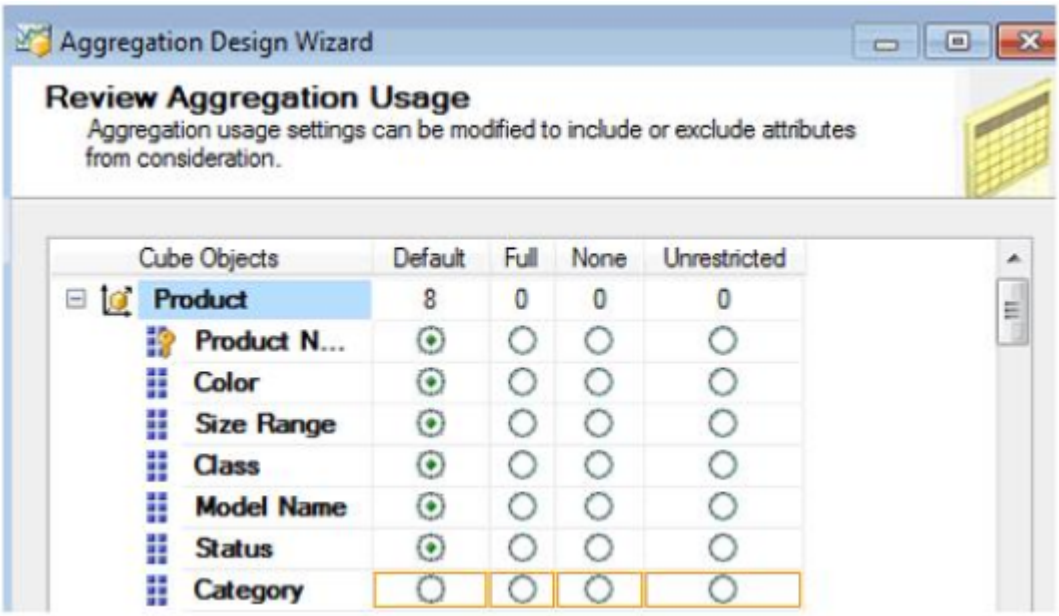
Minimize load on the source systems and the SharePoint environment during business hours.
Minimize user involvement in the data refresh process.
You enable automatic data refresh for the workbook.
You need to configure a data refresh schedule for the workbook that meets the requirements.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Set the default schedule to refresh outside of business hours. Do not manually refresh the workbook.
B. Set the default schedule to refresh outside of business hours. Manually refresh the workbook at 9:00 A.M. every day.
C. Set the default schedule to refresh at 9:00 A.M. every day. Create a separate schedule for Source A's connection to refresh outside of business hours.
D. Set the default schedule to refresh at 3:00 P.M. every day. Do not create individual source schedules.
E. Set the default schedule to refresh at 9:00 A.M. every day. Do not create individual source schedules.

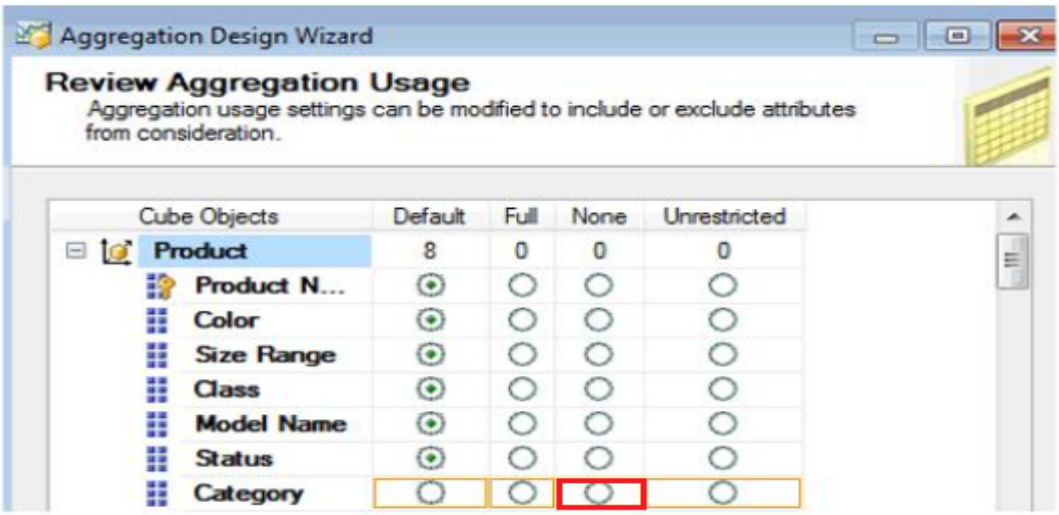
Answer: C

Question: 52

HOTSPOT
You are designing aggregations for a SQL Server Analysis Services (SSAS) cube.
You need to ensure that every aggregation excludes the Category attribute.
Which option should you select?
To answer, select the appropriate option in the answer area.



Answer:



Question: 53

HOTSPOT

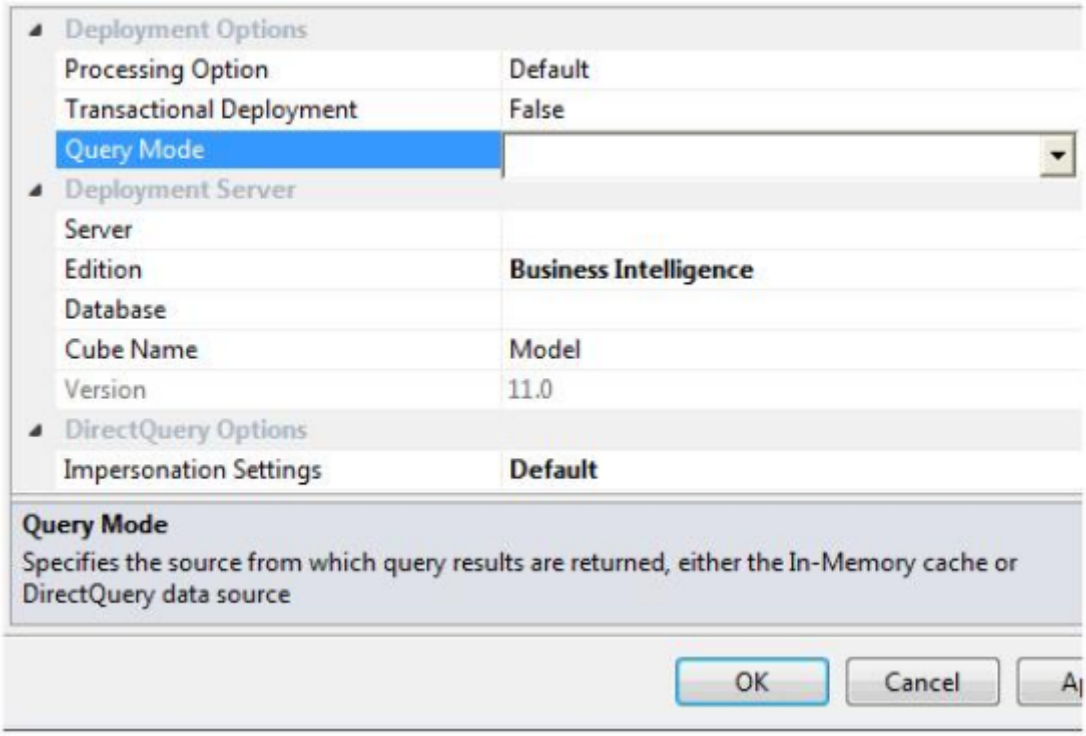
You are developing a SQL Server Analysis Services (SSAS) tabular project. The DirectQuery Mode property of the data model has been set to On. The current partition for the table is configured as the DirectQuery partition.

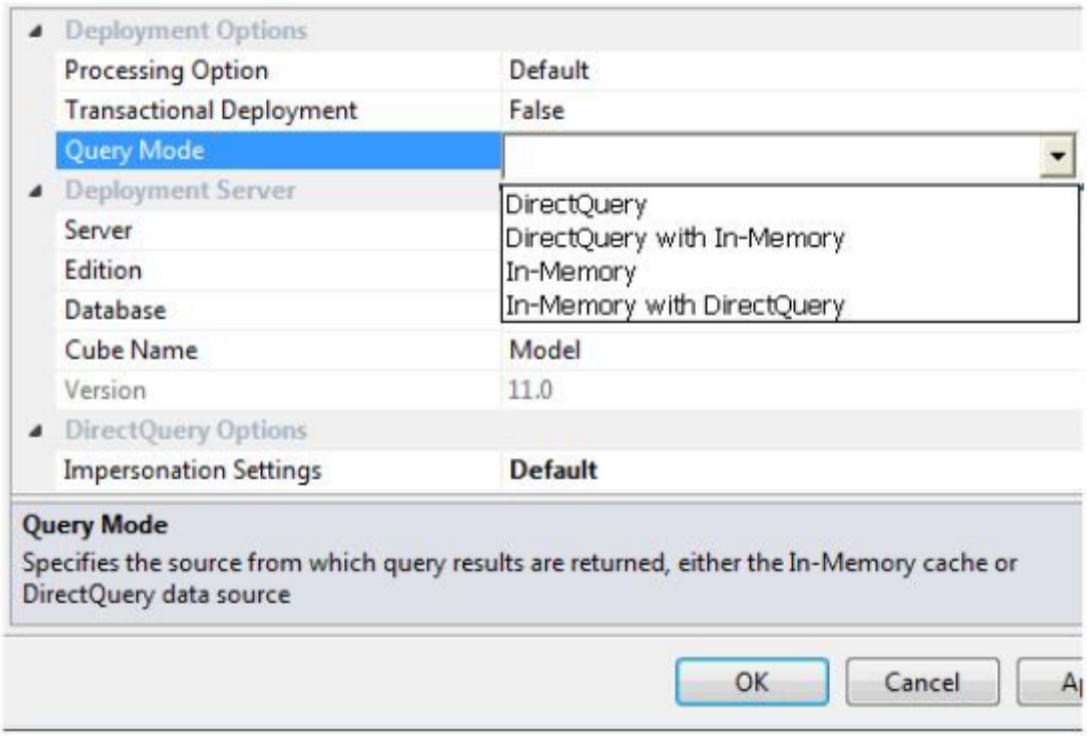
Data is loaded into a data mart throughout the day and must be available in the data model as soon as possible. The model must support querying by clients that issue both Data Analysis Expressions (DAX) queries and Multidimensional Expressions (MDX) queries. Clients issuing DAX queries must receive real-time query results.

You need to select the appropriate Query Mode property for deployment.

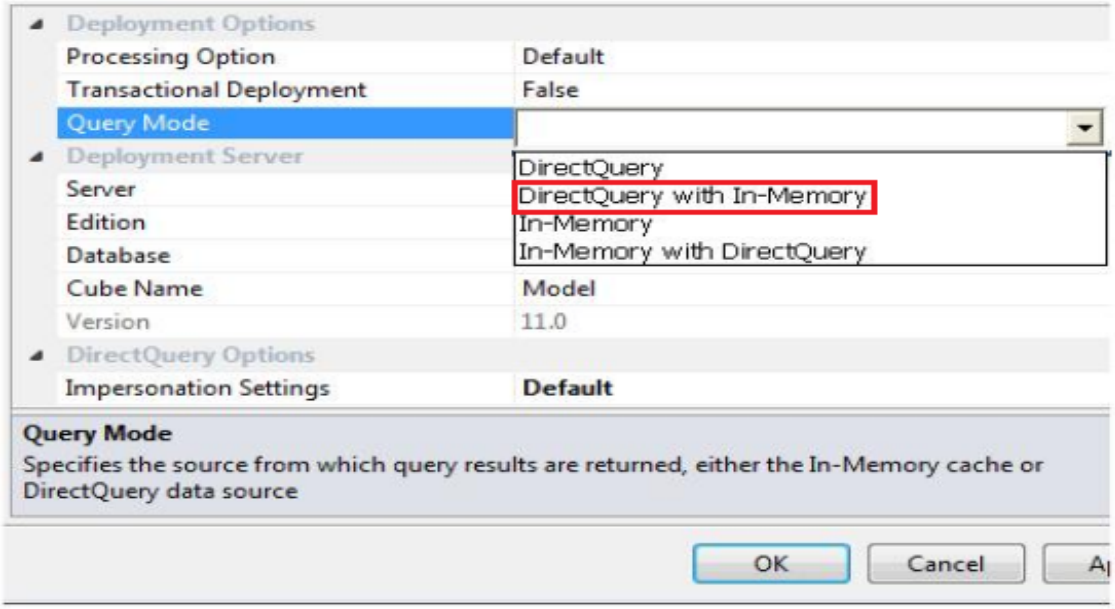
Which query mode should you select?

To answer, select the appropriate query mode from the drop-down list in the dialog box.





Answer:



Question: 54

You are designing a SQL Server Integration Services (SSIS) solution. The solution will contain an SSIS project that includes several SSIS packages. Each SSIS package will define the same connection managers and variables.

You have the following requirements:

Ensure that the deployment model supports changing the content of connection strings by using parameters at execution time.

Ensure that the deployment model automatically starts from calls to the catalog.start_execution stored procedure in the SSISDB database.

Maximize performance at execution time.

Minimize development effort.

You need to design a solution that meets the requirements.

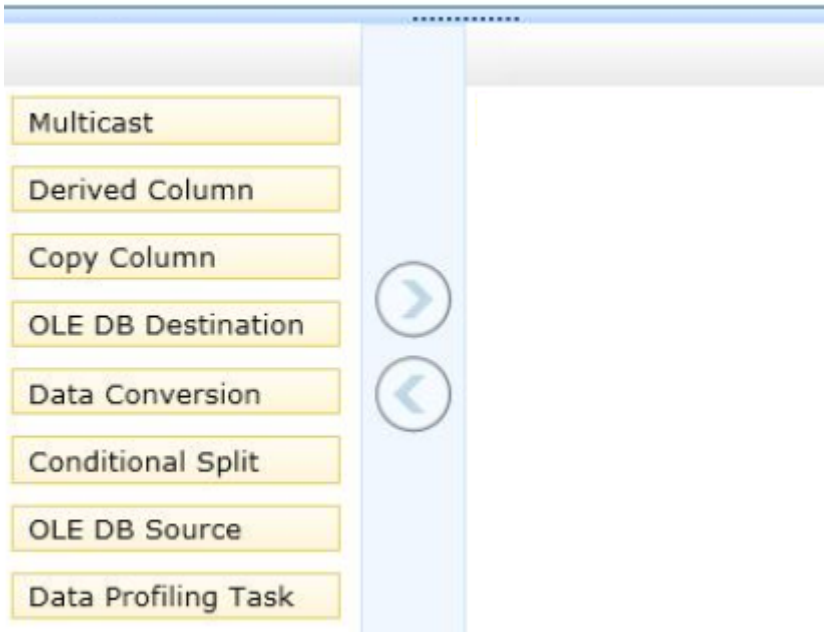
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Use a package deployment model. Use a SQL Server package configuration with a common filter. Change the contents of the SSIS Configurations table at runtime.
B. Use a project deployment model. Configure connections in an XML configuration file referenced by an environment variable that corresponds to the SQL Server environment of each SSIS package.
C. Use a package deployment model. Save each SSIS package to a file share that can be accessed from all environments.
D. Use a project deployment model. Modify connection manager properties to use project parameters. Ensure that the SSISDB database is created.

Answer: D

Question: 55

DRAG DROP
You are creating a SQL Server Integration Services (SSIS) package to populate a fact table from a source table. The fact table and source table are located in a Windows Azure SQL Database. The source table has a price field and a tax field. The OLE DB source uses the data access mode of Table.
You have the following requirements:
The fact table must populate a column named TotalCost that computes the sum of the price and tax columns.
Before the sum is calculated, any records that have a price of zero must be discarded.
You need to create the SSIS package in SQL Server Data Tools.
In what sequence should you order four of the listed components for the data flow task? (To answer, move the appropriate components from the list of components to the answer area and arrange them in the correct order.)



Answer:

Box 1: OLE DB Source
Box 2: Conditional split
Box 3: Derived Column
Box 4: Ole DB Destination

Explanation:
Note:

* SQL Server Integration Services provides three different types of data flow components: sources, transformations, and destinations. Sources extract data from data stores such as tables and views in relational databases, files, and Analysis Services databases. Transformations modify, summarize, and clean data. Destinations load data into data stores or create in-memory datasets.
* The Conditional Split transformation can route data rows to different outputs depending on the content of the data. The implementation of the Conditional Split transformation is similar to a CASE decision structure in a programming language. The transformation evaluates expressions, and based on the results, directs the data row to the specified output.
* The Derived Column transformation creates new column values by applying expressions to transformation input columns. An expression can contain any combination of variables, functions, operators, and columns from the transformation input. The result can be added as a new column or inserted into an existing column as a replacement value.

Question: 56

DRAG DROP
You are developing a SQL Server Integration Services (SSIS) package to add a large amount of data to a fact table named factOrders. The factOrders table is partitioned by week and has a clustered index.
You need to load three weeks' data into the factOrders table by using the most efficient method.
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.

Answer:

Box 1:

Create three temporary fact tables for staging, each with the same structure as the **factOrders** table.

Box 2:

Load one week's data into each of the temporary fact tables in parallel.

Box 3:

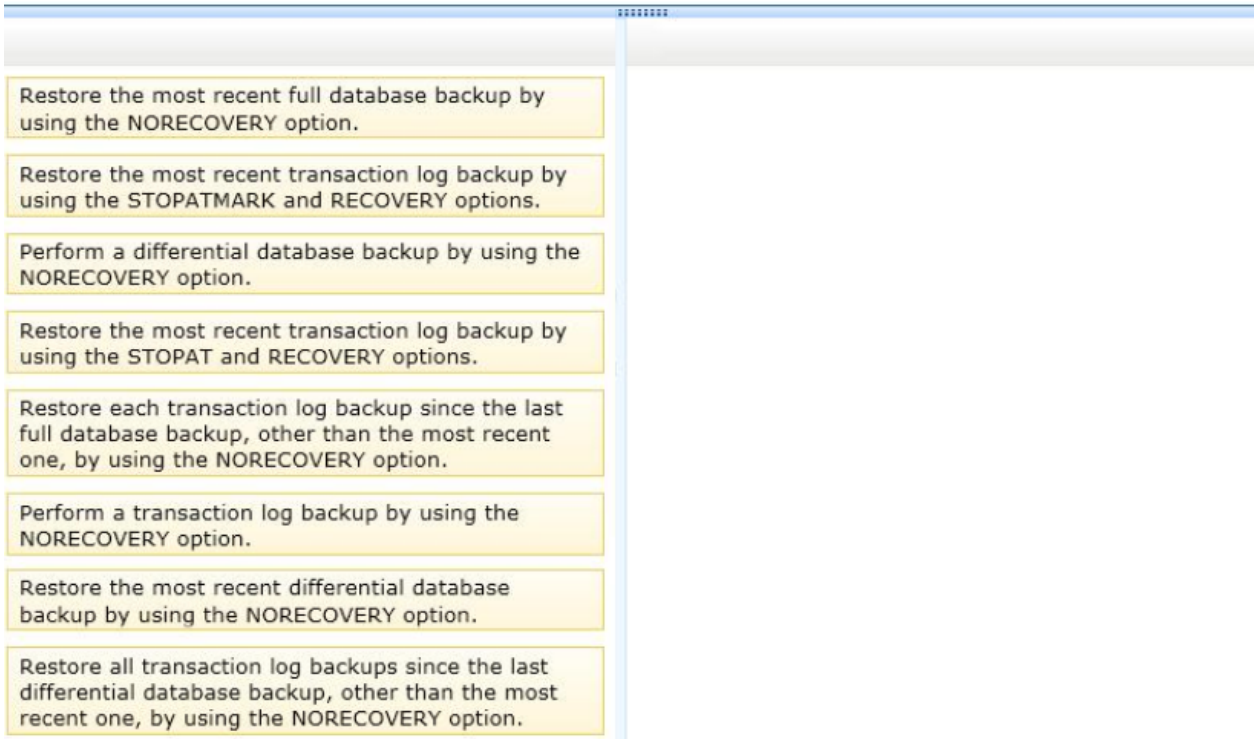
Use the **ALTER TABLE...SWITCH** statement to switch the temporary fact table partitions to the **factOrders** table.

Explanation:

Note:
* Need temporary tables.
* Can load data into the temporary tables in parallel
* ALTER TABLE
/ SWITCH
SWITCH [PARTITION source_partition_number_expression] TO [schema_name.] target_table [PARTITION target_ partition_number_expression]
Switches a block of data in one of the following ways:
Reassigns all data of a table as a partition to an already-existing partitioned table.
Switches a partition from one partitioned table to another.
Reassigns all data in one partition of a partitioned table to an existing non-partitioned table.

Question: 57

DRAG DROP
You are the database administrator of a SQL Server 2012 data warehouse implemented as a single database on a production server. The database is constantly updated by using SQL Server Integration Services (SSIS) packages and SQL Server Analysis Services (SSAS) cube writeback operations.
The database uses the full recovery model. A backup strategy has been implemented to minimize data loss in the event of hardware failure.
SQL Server Agent jobs have been configured to implement the following backup operations:
A full database backup every day at 12:00 A.M.
Differential database backups every day at 6:00 A.M., 12:00 P.M., and 6:00 P.M.
Transaction log backups every hour on the hour.
At 2:38 P.M. a SSIS package corrupts the data in a fact table. The corruption cannot be undone. You are notified at 3:15 P.M. You immediately take the database offline to prevent further data access and modification.
You need to restore the data warehouse and minimize downtime and data loss.
Which four 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.



Answer:

Box 1:

Perform a transaction log backup by using the NORECOVERY option.

Box 2:

Restore the most recent full database backup by using the NORECOVERY option.

Box 3:

Restore each transaction log backup since the last full database backup, other than the most recent one, by using the NORECOVERY option.

Box 4:

Restore the most recent transaction log backup by using the STOPAT and RECOVERY options.

Explanation:
Note:
* (box 1)
/ For a database using the full or bulk-logged recovery model, in most cases you must back up the tail of the log before restoring the database. Restoring a database without first backing up the tail of the log results in an error, unless the RESTORE DATABASE statement contains either the WITH REPLACE or the WITH STOPAT clause, which must specify a time or transaction that occurred after the end of the data backup.
/ If the database is online and you plan to perform a restore operation on the database, before starting the restore operation, back up the tail of the log using WITH NORECOVERY:
BACKUP LOG database_name TO <backup_device> WITH NORECOVERY
* To restore a database to a specific point in time or transaction, specify the target recovery point in a STOPAT, STOPATMARK, or STOPBEFOREMARK clause.
* (incorrect, box 4): The STOPBEFOREMARK and STOPATMARK options have two parameters, mark_name and lsn_number. The mark_name parameter, which identifies a transaction mark in a log backup, is supported only in RESTORE LOG statements. The lsn_number parameter, which specifies a log sequence number, is supported in both RESTORE DATABASE statements and RESTORE LOG statements.

Question: 58

You are designing a SQL Server 2012 Integration Services (SSIS) deployment strategy. You currently have many SQL Server 2008 SSIS packages that require upgrading.
The production environment includes SSIS 2012 and SSIS 2008. The environment includes existing command shell scripts that invoke the dtutil command-line utility.
You need to design a deployment strategy that supports existing deployment strategies and requires the minimum amount of effort.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Use a project deployment model. Change the command shell scripts to reference the SQL Server 2012 path to dtutil.
B. Use a package deployment model. Use the Integration Services Deployment Wizard.
C. Use a package deployment model. Change the command shell scripts to reference the SQL Server 2012 path to dtutil.
D. Use a project deployment model. Use the Integration Services Deployment Wizard.

Answer: C

Question: 59

HOTSPOT

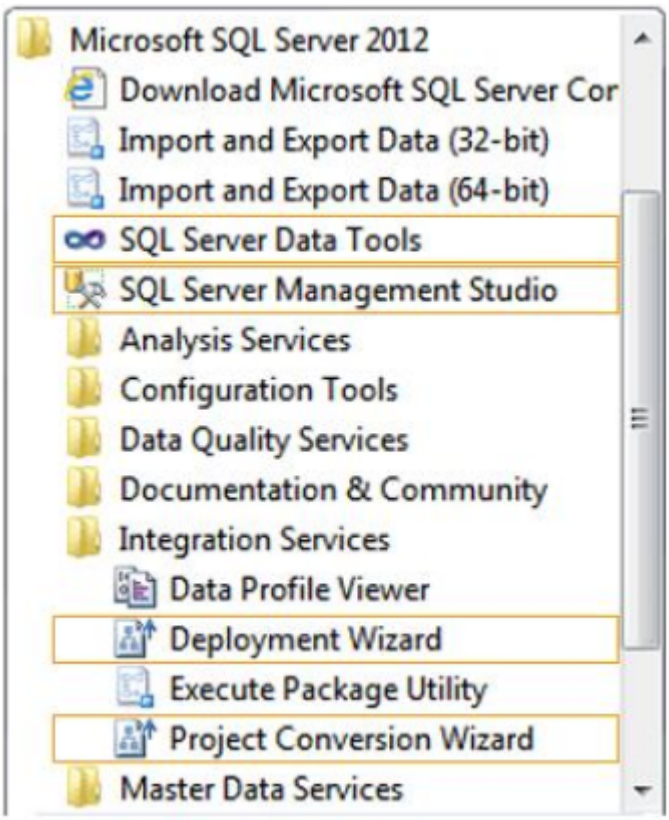
A company maintains separate environments for development, test, and production. The company uses the project deployment model for SQL Server Integration Services (SSIS) deployments.

You create an SSIS project to perform a daily refresh of the data warehouse and data models. The project has five packages.

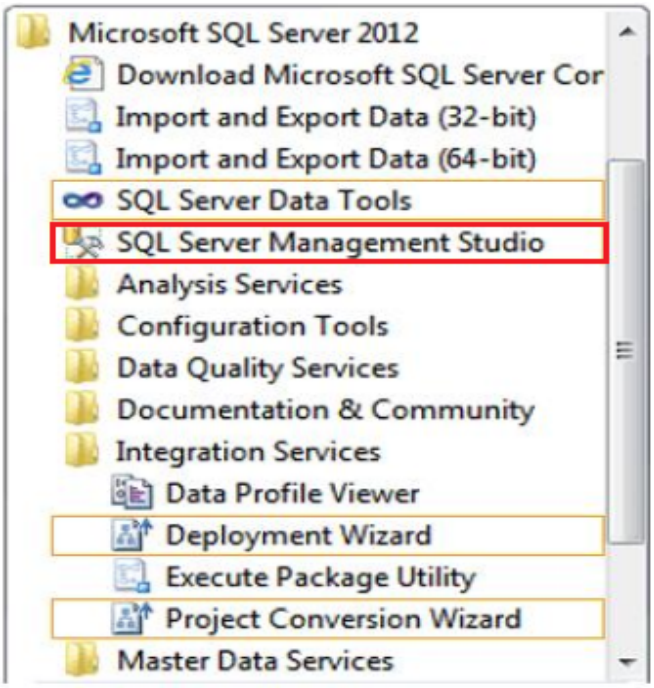
You need to configure the project to ensure that the development, test, and production teams can run each package without manually adding server-specific information.

Which program should you use?

To answer, select the appropriate program in the answer area.



Answer:



Question: 60

DRAG DROP

You are developing packages in a SQL Server Integration Services (SSIS) project to load a data warehouse.

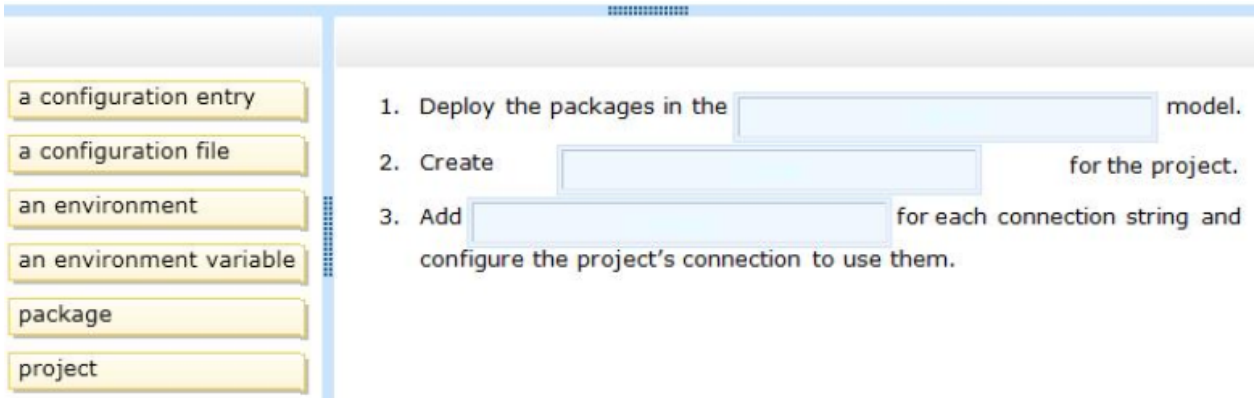
You are designing a method for configuring the packages' connections when deployed to a production SSIS catalog. All packages load data from two source databases.

Two packages also load data from a third source database. Another SSIS project will use the same connections.

You need to meet the requirements.

What should you do?

To answer, drag the appropriate term or terms to the correct location or locations in the answer area. (Each term may be used once, more than once, or not at all.)



Answer:

1. Deploy the packages in the project model.
2. Create an environment for the project.
3. Add an environment variable for each connection string and configure the project's connection to use them.

Question: 61

DRAG DROP

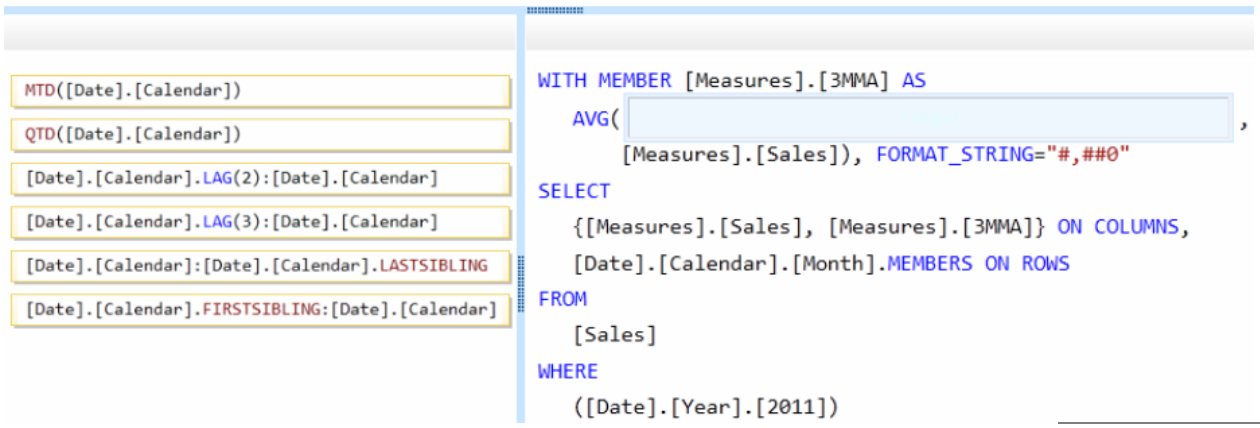
A SQL Server Analysis Services (SSAS) cube named Sales includes a dimension named Date that defines a hierarchy named Calendar. The Calendar hierarchy consists of Year, Quarter, and Month levels. The Type properties of the Date dimension and its attributes are appropriately configured to mark the dimension as a time dimension.

You are creating a Multidimensional Expressions (MDX) query that will return sales for each month of 2011 and a three-month moving average of sales (labeled 3MMA), as shown in the following diagram.

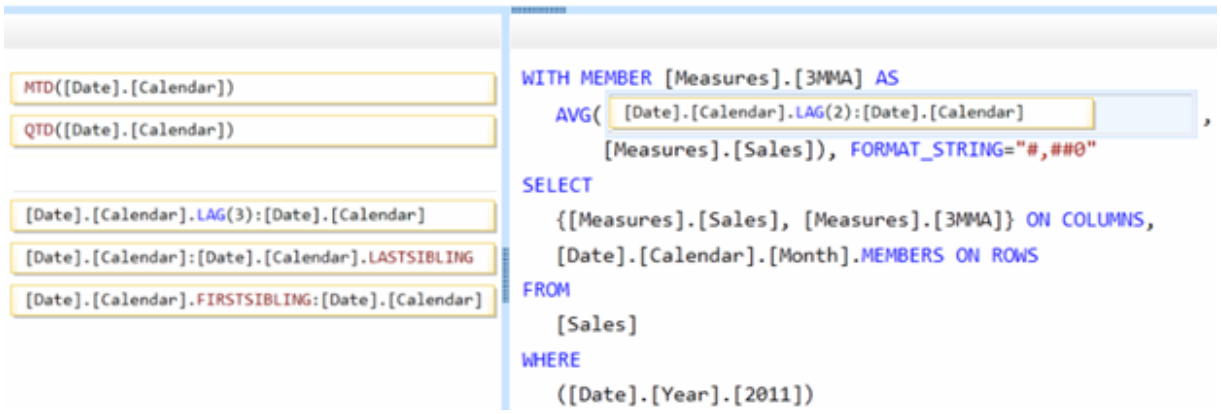
	Sales	3MMA
2011-04	3,000	2,333
2011-05	4,000	3,000
2011-06	5,000	4,000
2011-07	6,000	5,000
2011-08	4,000	5,000
2011-09	3,000	4,333
2011-10	4,000	3,667
2011-11	5,000	4,000
2011-12	6,000	5,000

You need to complete the MDX query.

Which set expression should you use? To answer, drag the appropriate expression to the answer area.



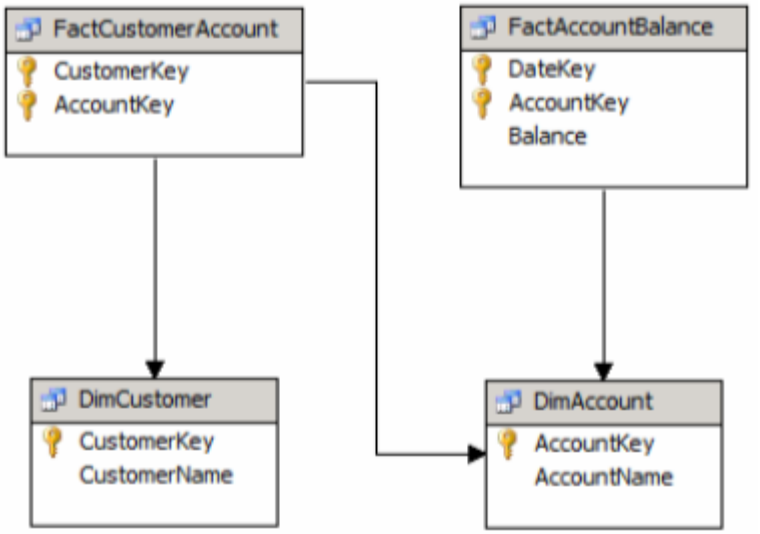
Answer:



Question: 62

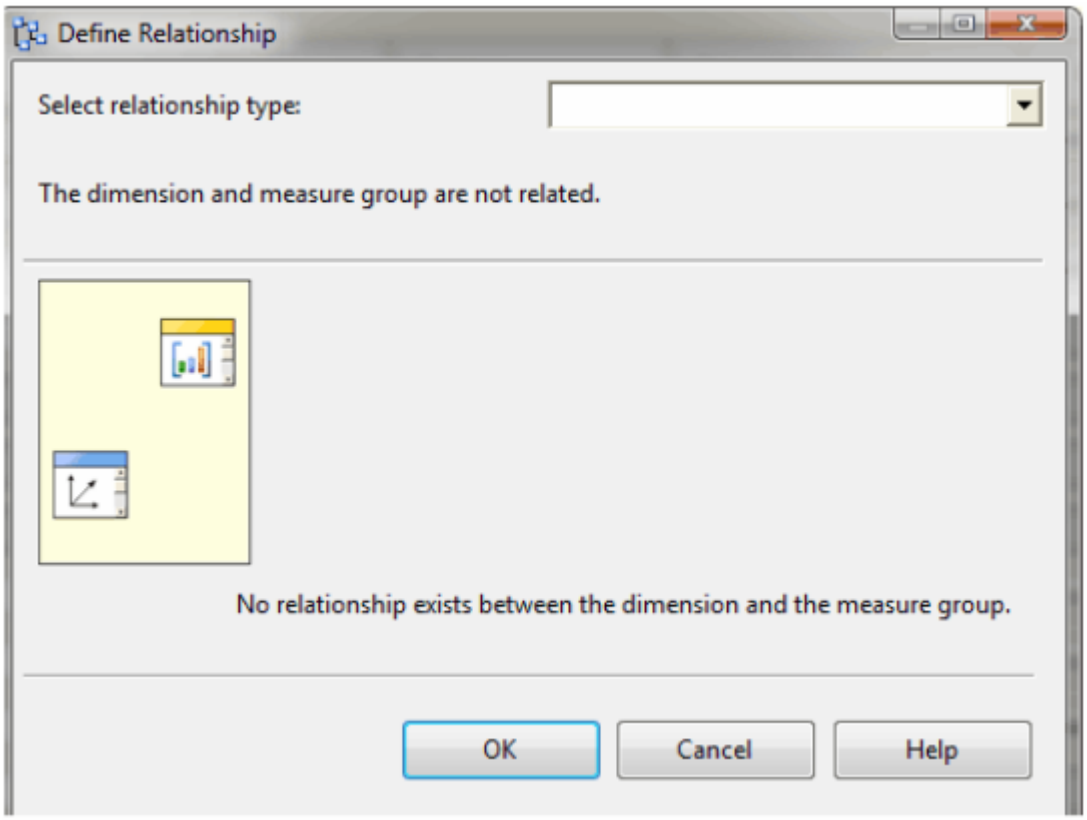
HOTSPOT

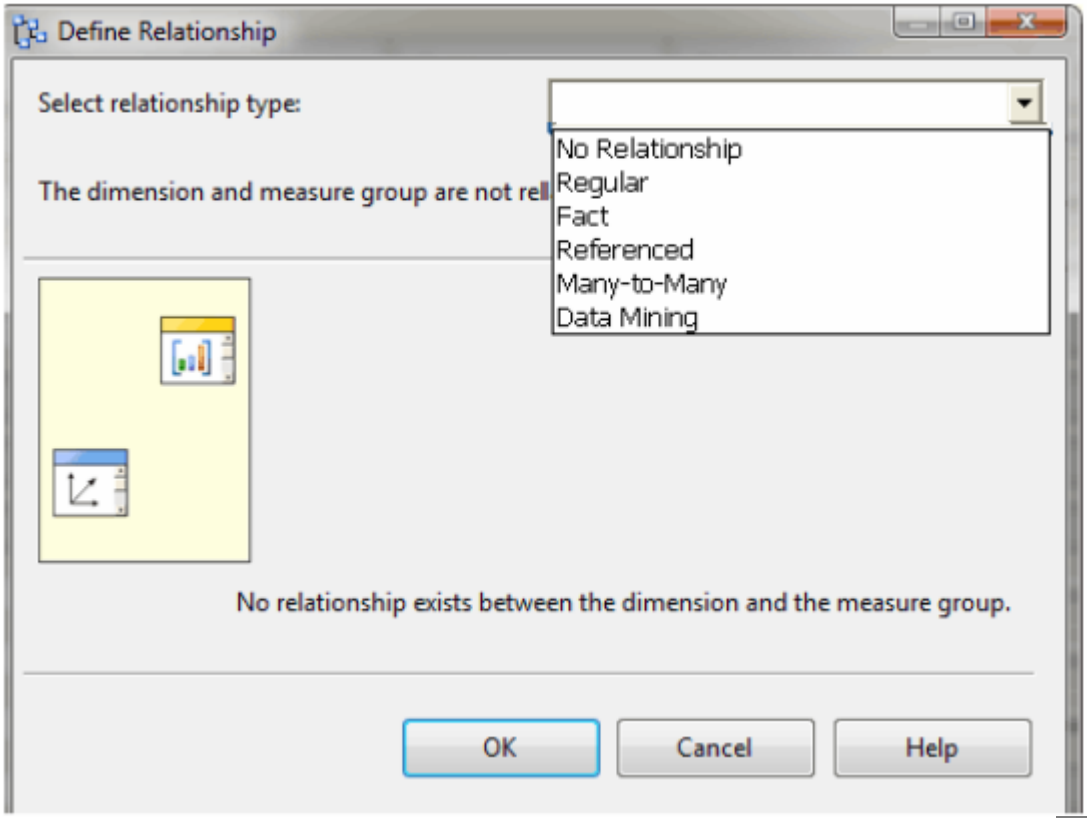
You are developing a SQL Server Analysis Services (SSAS) cube. A dimension named Customer is based on the DimCustomer table. A subset of the data source view is shown in the following graphic.



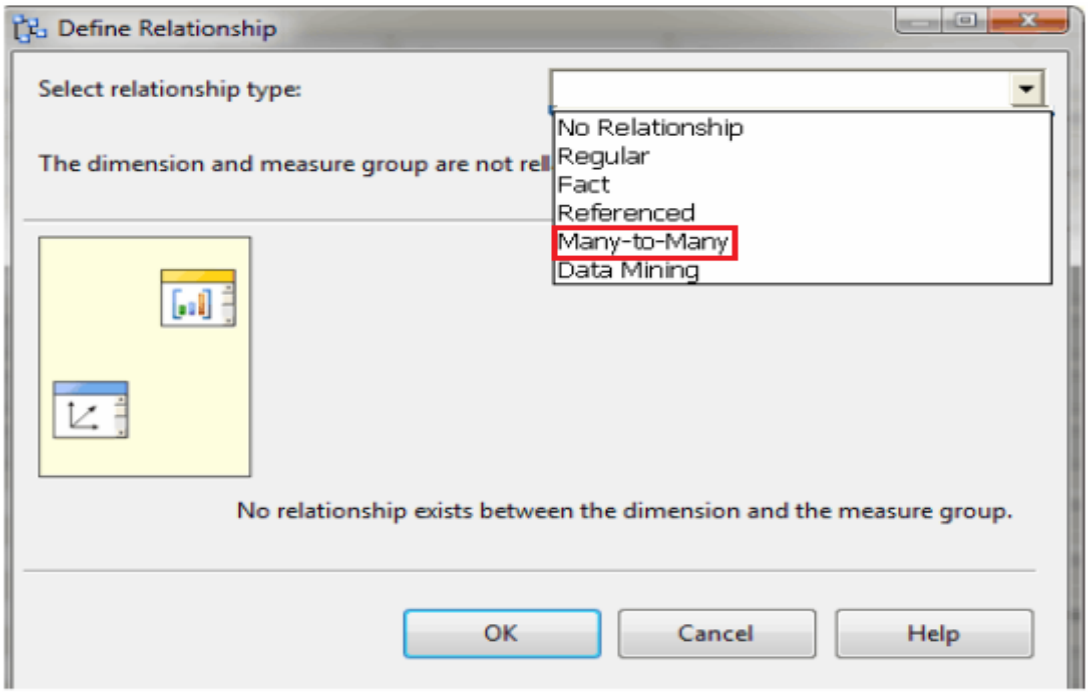
You need to relate the Customer dimension to the AccountBalance measure group.

Which relationship type should you choose? To answer, select the appropriate option from the drop-down list in the dialog box.


Define Relationship
Select relationship type:
The dimension and measure group are not related.
No relationship exists between the dimension and the measure group.
OK
Cancel
Help


Define Relationship
Select relationship type:
The dimension and measure group are not rel
No Relationship
Regular
Fact
Referenced
Many-to-Many
Data Mining
No relationship exists between the dimension and the measure group.
OK
Cancel
Help

Answer:



Question: 63

The IT department is currently upgrading all SQL Server Integration Services (SSIS) packages to SSIS 2012.
The final version of a complex SSIS 2005 package has been overwritten. Four prior versions of the package exist. Each of the prior versions contains a different part of the final solution. You have backups of all associated project files.
You need to create an updated package as quickly and accurately as possible.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Use an XML editing tool to merge the compatible changes of the package versions by comparing the package refID fields. Upgrade the merged version.
B. Upgrade the four package versions. Use an XML editing tool to merge the compatible changes of the package versions by comparing the package refID fields.
C. Use the DataSet.Merge method to merge the compatible changes of the package versions by using the Lineage IDs. Upgrade the merged version.
D. Upgrade the four package versions. Use SSIS Designer to visually compare the package versions, determine the compatible changes, and copy the compatible tasks into a single package.

Answer: B

Question: 64

HOTSPOT
You administer a SQL Server Analysis Services (SSAS) cube.
You plan to optimize the cube partitions by using usage-based optimization.
You need to configure the SSAS instance.
Which properties should you configure? To answer, select the appropriate properties in the dialog box in the answer area.

Name	Value	Current Value
ForceCommitTimeout	30000	30000
Log \ FlightRecorder \ Enabled	true	true
Log \ QueryLog \ CreateQueryLogTable	false	false
Log \ QueryLog \ QueryLogConnectionString		
Log \ QueryLog \ QueryLogSampling	10	10
Log \ QueryLog \ QueryLogTableName	OlapQueryLog	OlapQueryLog
LogDir	C:\Program File...	C:\Program File...
Memory \ HardMemoryLimit	0	0
Memory \ LowMemoryLimit	65	65
Memory \ TotalMemoryLimit	80	80
Memory \ VertiPaqMemoryLimit	60	60
Network \ ListenOnlyOnLocalConnections	false	false
Network \ Requests \ EnableBinaryXML	false	false
Network \ Requests \ EnableCompression	false	false

Show Advanced (All) Properties

Answer:

Name	Value	Current Value
ForceCommitTimeout	30000	30000
Log \ FlightRecorder \ Enabled	true	true
Log \ QueryLog \ CreateQueryLogTable	false	false
Log \ QueryLog \ QueryLogConnectionString		
Log \ QueryLog \ QueryLogSampling	10	10
Log \ QueryLog \ QueryLogTableName	OlapQueryLog	OlapQueryLog
LogDir	C:\Program File...	C:\Program File...
Memory \ HardMemoryLimit	0	0
Memory \ LowMemoryLimit	65	65
Memory \ TotalMemoryLimit	80	80
Memory \ VertiPaqMemoryLimit	60	60
Network \ ListenOnlyOnLocalConnections	false	false
Network \ Requests \ EnableBinaryXML	false	false
Network \ Requests \ EnableCompression	false	false

Show Advanced (All) Properties

Question: 65

DRAG DROP

You administer a SQL Server Reporting Services (SSRS) infrastructure. Data alerts are provisioned.

You need to monitor the number of report data feed processing events during every automated execution.

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.)

Answer:

Box 1:

Capture the **Alerting: events processed** - **DeliverAlert** values and compare them to the previously queried events.

Box 2:

Open Data Alert Manager.

Box 3:

Query the **Alerting: events processed** – **GenerateAlert** event.

Explanation:

Note:

* DeliverAlert

The runtime creates the data alert message and sends it to all recipients by email.

* GenerateAlert

The alerting runtime processes the report data feed, applies the rules specified in the data alert definition, determines whether to create an instance of the data alert, and if needed creates an instance of the data alert.

* Data Alert Manager lists alert definitions and error information that help information workers and alerting administrators understand why the failure occurred. Some common reasons for failure include:

The report data feed changed and columns that are used in the data alert definition rules are no longer included in the data feed.

Permission to view the report was revoked.

The data type in the underlying data source changed and the alert definition is no longer valid.

Question: 66

DRAG DROP

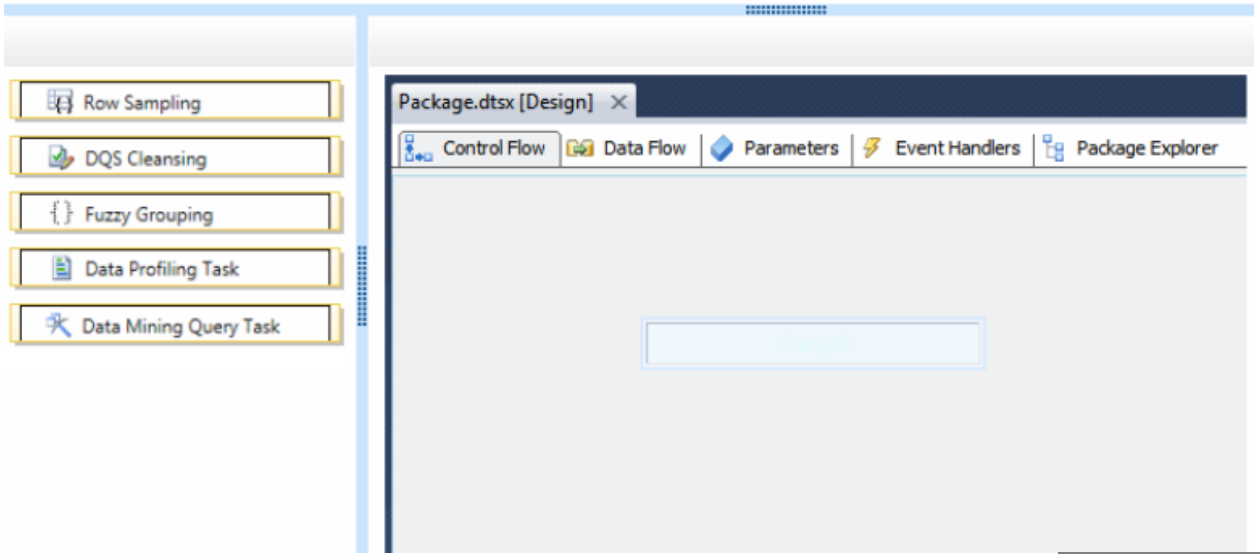
A company has a data warehouse that is rapidly increasing in size.

You plan to improve query performance by partitioning a very large fact table.

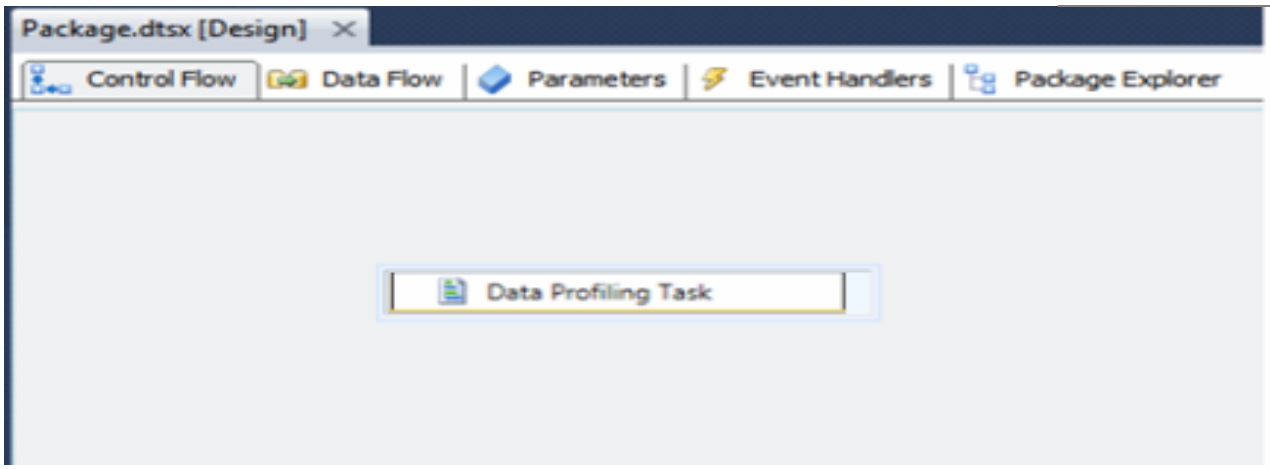
You need to identify the columns that are good partitioning candidates and the range that each partition should include.

Which component should you add to the package?

To answer, drag the appropriate component from the list of items to the answer area.



Answer:



Question: 67

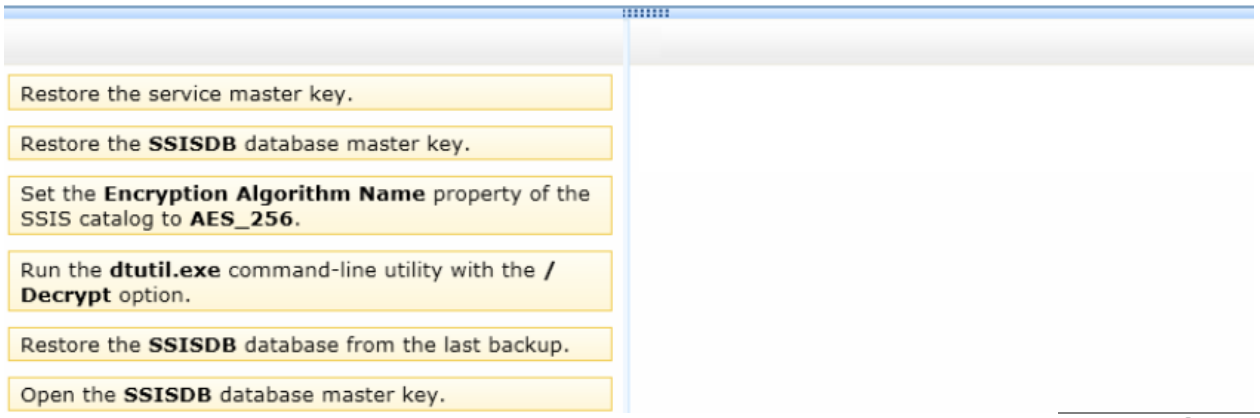
A company runs SQL Server Database Engine and SQL Server Reporting Services (SSRS) in native mode. Reports are based on data that is cached in multiple shared datasets. Source data is archived each day at midnight for regulatory compliance purposes. The shared datasets may continue to cache data that should not be used in reports. Shared report schedules are often paused during nightly server maintenance windows.
Reports must not return archived data.
You need to create a fully automated solution to ensure that reports do not deliver archived data.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Write a script that calls the flushcache method to clear individual items from the SSRS cache. Create a SQL Server Agent job that runs rs.exe with the script as an input file, and schedule the job to run every day after the archive process completes.
B. Create a SQL Server Agent job that uses a Transact-SQL (T-SQL) step to truncate the dbo.ExecutionCache table in the ReportServerTempDB database. Schedule the job to run every day after the archive process completes.
C. Create a SQL Server Agent job that restarts the SQL Server Reporting Services service. Schedule the job to run every day after the archive process completes.
D. Create a shared schedule. Configure the datasets to expire on the shared schedule.

Answer: A

Question: 68

DRAG DROP
You are the administrator of a SQL Server Integration Services (SSIS) catalog. You have access to the original password that was used to create the SSIS catalog.
A full database backup of the SSISDB database on the production server is made each day. The server used for disaster recovery has an operational SSIS catalog.
Information that is encrypted in the SSISDB database must not be lost.
You need to document the disaster recovery solution that restores the production SSIS catalog to the disaster recovery server.
Which three steps should you document in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.



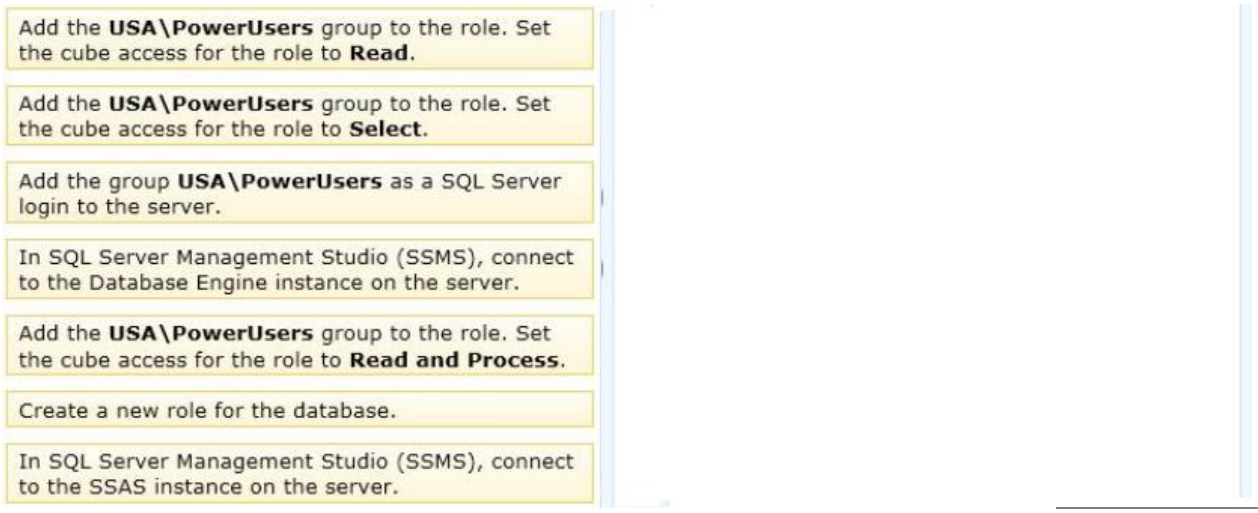
Answer:

Box 1: Restore the SSISDB database from the last backup.
Box 2: Restore the SSISDB master key.
Box 3: Open the SSISDB database master key

Explanation:
Note:
To Restore the SSIS Database
1. Restore the SSISDB database from the backup by using the Restore Database dialog box in SQL Server Management Studio.
2. Restore the master key (Use this method if you have the original password that was used to create SSISDB), open master key decryption by password = 'LS1Setup!' --'Password used when creating SSISDB'Alter Master Key Add encryption by Service Master Key

Question: 69

DRAG DROP
You are administering a SQL Server Analysis Services (SSAS) database on a server. The database hosts a financial cube based on a SQL Azure database.
You need to grant read access to the financial cube for all users in the group USA\PowerUsers.
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.)



Answer:

Box 1: In the SQ L Management Studio (SSMS), connect to the SSAS instance on the server.
Box 2: Create a new role for the database.
Box 3: Add the USA\PowerUsers group to the role. Set the cube access for the role to Read.

Explanation:
Note:
* A member of the server role for Microsoft SQL Server Analysis Services, or a member of a database role that has Full Control (Administrator) permissions in a particular database, can create a database role that only has permission to process specified objects within the database. Giving a database role permission to process a database object lets an administrator delegate the task of processing certain objects, without also granting extraneous permissions to the user who is performing the processing.
* To give a database role permission to process a cube
1. In SQL Server Management Studio, connect to the instance of Analysis Services, expandRolesfor the appropriate database in Object Explorer, and then double-click a database role (or right-click Rolesand selectNew Roleto create a new database role). If this is a new role, make sure that you enter a name for the role in theRole namebox.
2. ClickCubesin theSelect a Pagepane, locate the cube in theCubelist, and then select theProcesscheck box for the cube.
3. Click theOKbutton.
* There is no write permissions on a cube.
Reference: Grant Process Permissions on an Analysis Services Multidimensional Database

Question: 70

You are designing a reporting solution that uses SQL Server Reporting Services (SSRS) in SharePoint integrated mode.
The reporting solution must meet the following requirements:
Allow report writers to reuse content between different reports.
Allow report writers to modify reusable content in SharePoint.
Retain version history for report content.
You need to choose a reporting method that meets the requirements.
What should you use? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. drillthrough reports
B.linked reports
C.subreports
D.report parts

Answer: D

Question: 71

You deploy a PowerPivot workbook to a document library in a Microsoft SharePoint site. Workbook data comes from two different sources: Source A and Source B.
The workbook contains three small lookup tables from Source A, and five tables with a total of 20 million rows from Source B. Data from Source A is updated at 9:00 A.M. and data from Source B is updated throughout the day.
You have the following requirements:
Refresh the PowerPivot workbook with updated lookup data as soon as possible.
Minimize load on the source systems and the SharePoint environment during business hours.
Minimize user involvement in the data refresh process.
You enable automatic data refresh for the workbook.
You need to configure a data refresh schedule for the workbook that meets the requirements.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Set the default schedule to refresh outside of business hours. Do not manually refresh the workbook.
B.Set the default schedule to refresh outside of business hours. Manually refresh the workbook at 9:00 A.M. every day.
C.Set the default schedule to refresh at 9:00 A.M. every day. Create a separate schedule for Source B's connection to refresh outside of business hours.
D.Set the default schedule to refresh at 3:00 P.M. every day. Do not create individual source schedules.
E.Set the default schedule to refresh at 9:00 A.M. every day. Do not create individual source schedules.

Answer: C

Question: 72

You need to design a data warehouse schema to support a multidimensional cube. The fact table will contain multiple columns representing order dates, shipping dates, and billing dates. The cube will contain a measure group based on the fact table.
What is the best design to achieve the goal? More than one answer choice may achieve the goal. Select the BEST answer.

A. In the database, create a time table for each date column in the fact table.
From the data source view, join each date column in the fact table to the corresponding time table.
Create dimensions for each time table.
B.In the database, create a time table containing a column that corresponds to each date column in the fact table.
From the data source view, join each date column in the fact table to the corresponding column in the time table.
Create a dimension for the time table.
C.In the database, create a time table that uses an integer primary key and a datetime column.
Create a dimension based on the time table.
From the Cube Designer, use the Dimension Usage tab to define a relationship between the measure group date columns and the datetime column of the time dimension.
D.In the database, create a time table that uses an integer primary key and a datetime column.
Create a dimension based on the time table.
From the Cube Designer, use the Dimension Usage tab to define a relationship between the measure group date columns and the key column of the time dimension.

Answer: B

Question: 73

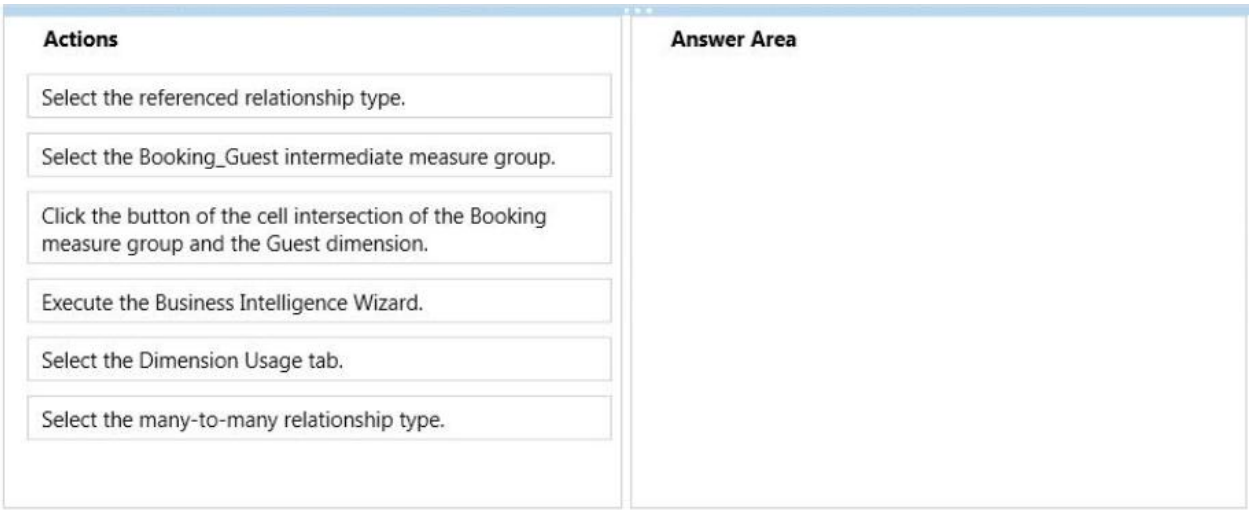
You are creating a product dimension table and a SQL Server Integration Services (SSIS) package that will load the table.
You need to keep a history in the table of changes to the names of products.
Which three actions should you perform? Each correct answer presents part of the solution.

A. Add a Slowly Changing Dimension transformation to the package.
B.Enable Change Data Capture for the table.
C.Create an inferred member column in the table.
D.From the Slowly Changing Dimension Wizard, set the name column to Type 3.
E.Create an end date column in the table.
F.Create a start date column in the table.

Answer: A, E, F

Question: 74

DRAG DROP
You are designing a business intelligence (BI) solution for a hotel booking system. Each hotel booking may have more than one guest.
The BI solution contains a fact table named Booking, a factless fact table named Booking_Guest and a dimension named Guest.
Booking contains an entry for each booking. Booking_Guest contains an entry for each guest in each booking. Guest contains an entry for each guest.
You need to define the many-to-many relationship in SQL Server Analysis Services (SSAS) for the hotel booking system.
Which four 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.



Answer:

Box 1:

Select the Dimension Usage tab.

Box 2:

Click the button of the cell intersection of the Booking measure group and the Guest dimension.

Box 3:

Select the many-to-many relationship type.

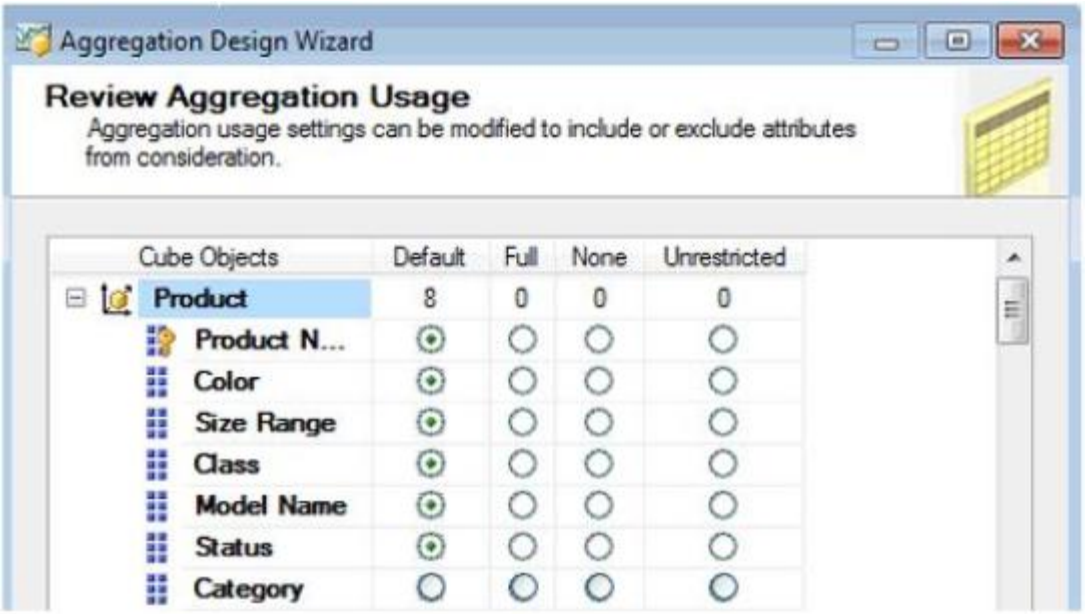
Box 4:

Select the Booking_Guest intermediate measure group.

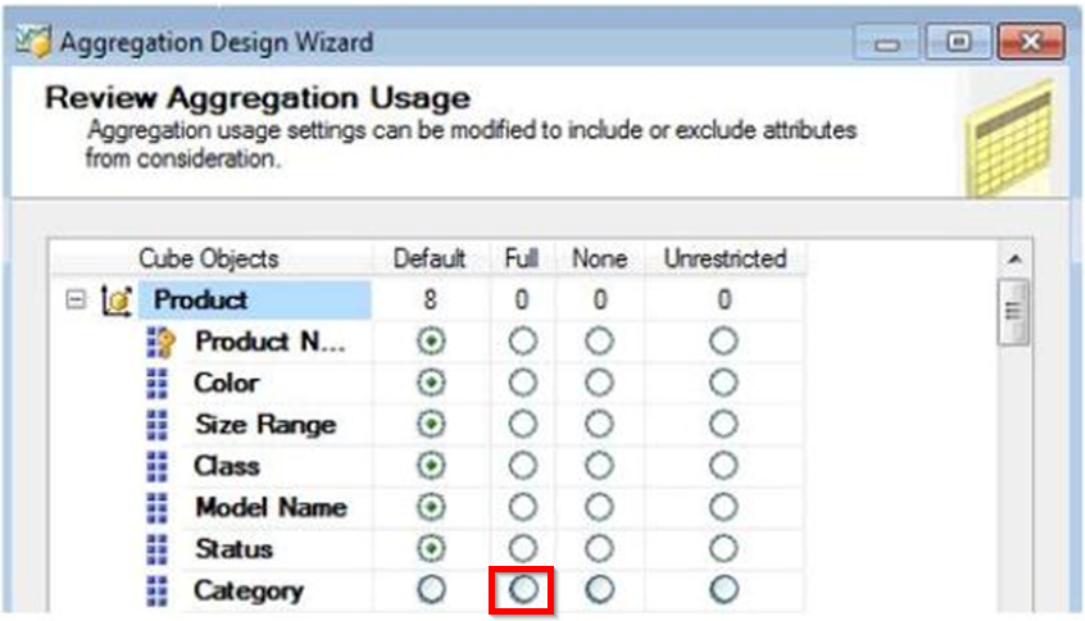
Explanation:
Ref: http://technet.microsoft.com/en-us/library/ms170463.aspx

Question: 75

HOTSPOT
You are designing aggregations for a SQL Server Analysis Services (SSAS) cube.
You need to ensure that every aggregation includes the Category attribute.
Which option should you select? To answer, select the appropriate option button in the answer area.



Answer:



Question: 76

You are redesigning a SQL Server Analysis Services (SSAS) database that contains a cube named Sales. Before the initial deployment of the cube, partition design was optimized for processing time. The cube currently includes five partitions named FactSalesl through FactSales5. Each partition contains from 1 million to 2 million rows.
The FactSales5 partition contains the current year's information. The other partitions contain information from prior years; one year per partition. Currently, no aggregations are defined on the partitions.
You remove fact rows that are more than five years old from the fact table in the data source and configure query logs on the SSAS server.
Several queries and reports are running very slowly.
You need to optimize the partition structure and design aggregations to improve query performance and minimize administrative overhead.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Use the Aggregation Design Wizard to create aggregations for the current partitions.
B.Combine all the partitions into a single partition. Use the Usage-Based Optimization Wizard to create aggregations.
C.Combine all the partitions into a single partition. Use the Aggregation Design Wizard to create aggregations.
D.Use the Usage-Based Optimization Wizard to create aggregations for the current partitions.

Answer: D

Question: 77

You have a data warehouse named DW1.
An OLAP cube named Cube1 uses DW1 as its data source. Cube1 uses the MOLAP storage mode.
You create a SQL Server Integration Services (SSIS) package that updates DW1, and then processes Cube1. The package executes each day at 06:00.
You need to configure the storage settings of Cube1. The solution must ensure that aggregation processing is reduced as much as possible during cube querying.
What is the best storage setting you should you use for Cube1? More than one answer choice may achieve the goal. Select the BEST answer.

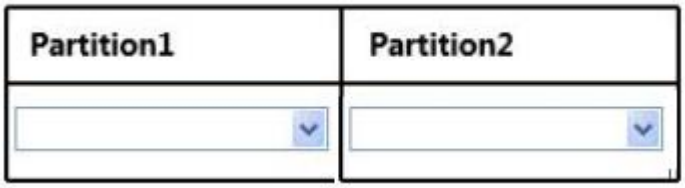
A. Medium-latency MOLAP
B.Scheduled MOLAP
C.Low-latency MOLAP
D.Automatic MOLAP

Answer: D

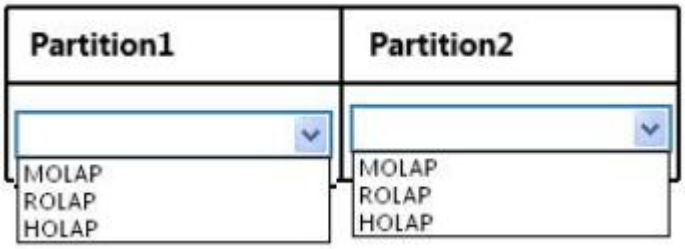
Question: 78

HOTSPOT
You have an OLAP cube named Cube1. Cube1 has two partitions named partition1 and partition2.
You need to configure the storage mode for each cube partition.
The solution must meet the following requirements:
Users must be able to retrieve aggregate data from partition1 as quickly as possible.
The processing time for partition1 and partition2 must be minimized.
The least possible amount of storage must be used for partition2.
What should you do? To answer, select the appropriate storage mode for each partition in the answer area.

Answer Area

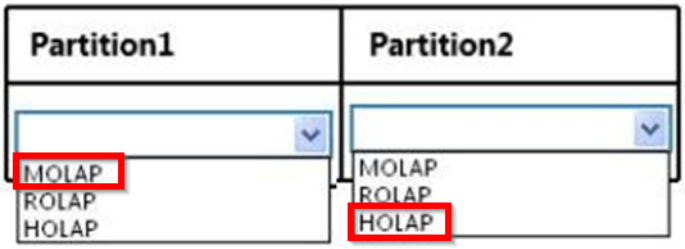


Answer Area



Answer:

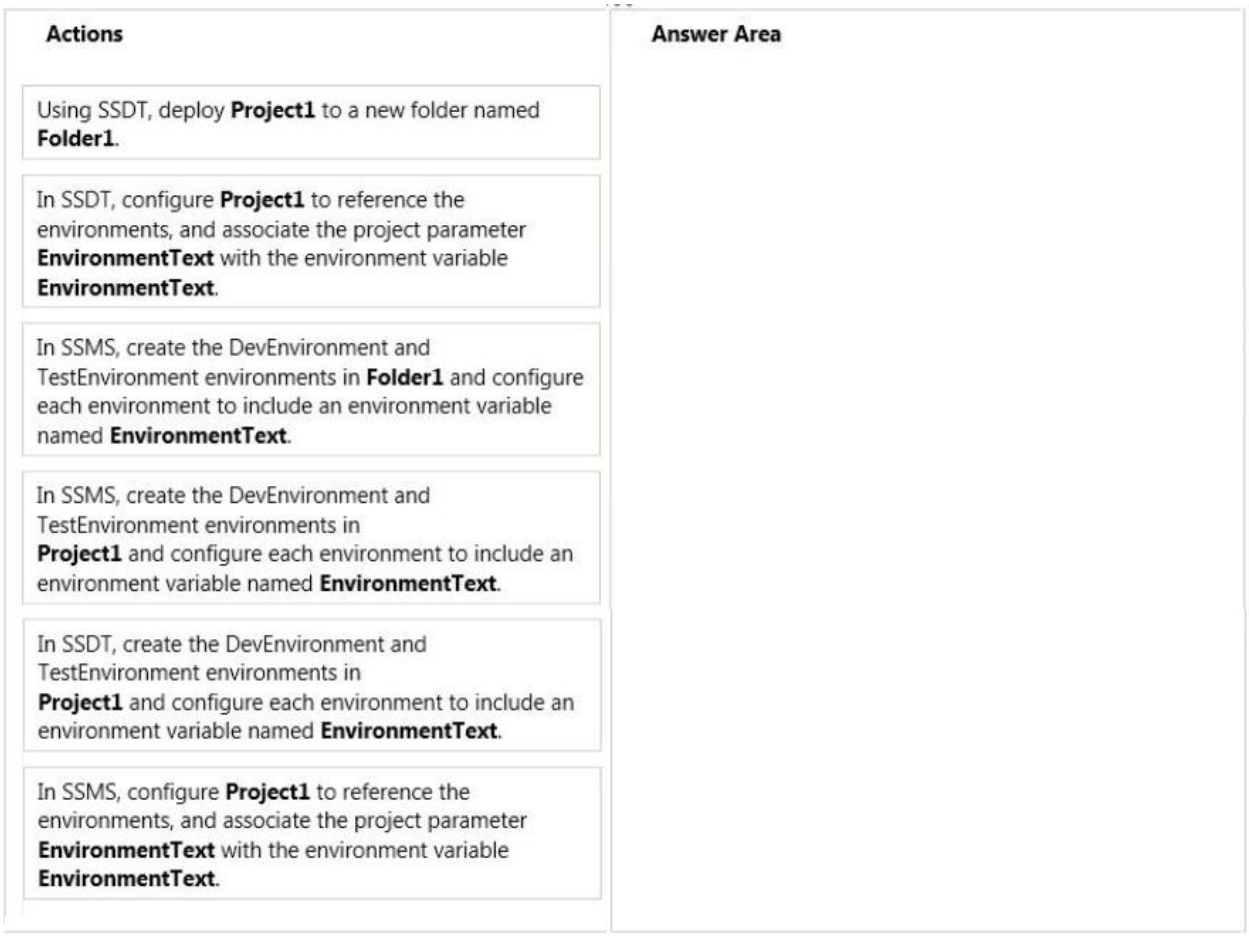
Answer Area



Question: 79

DRAG DROP
You develop a SQL Server Integration Services (SSIS) project named Project1 by using SQL Server Data Tools (SSDT). Project1 contains a package named Package1.
You add a project parameter named EnvironmentText to Project1.
In SQL Server Management Studio (SSMS), you create the SSIS catalog.

You have the following requirements:
Configure Package1 so it can run within either a development environment or a test environment.
Pass the value of an SSIS environment variable to the EnvironmentText project parameter.
The value of the environment variable must be different for each SSIS environment.
You need to deploy the SSIS project and configure the SSIS environment.
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.)



Answer:

Box 1:

Using SSDT, deploy **Project1** to a new folder named **Folder1**.

Box 2:

In SSMS, create the DevEnvironment and TestEnvironment environments in **Folder1** and configure each environment to include an environment variable named **EnvironmentText**.

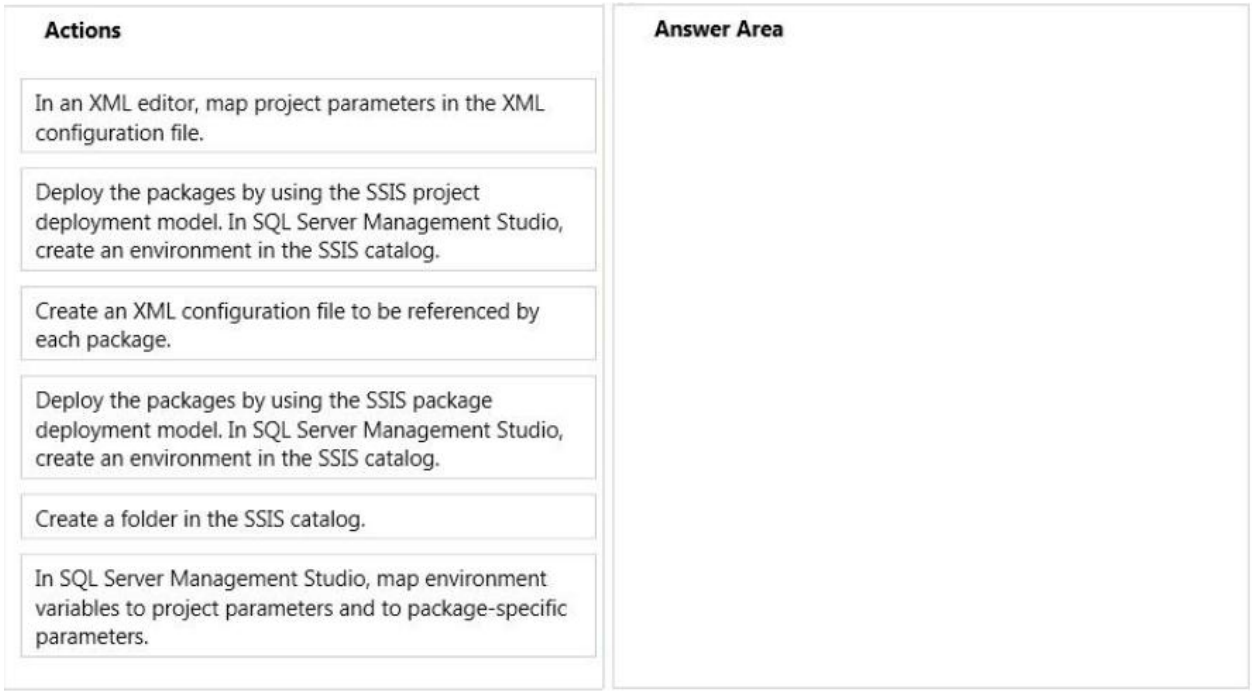
Box 3:

In SSMS, configure **Project1** to reference the environments, and associate the project parameter **EnvironmentText** with the environment variable **EnvironmentText**.

Question: 80

DRAG DROP

You install SQL Server Integration Services (SSIS) and develop an SSIS project to load a data warehouse. The project defines 10 parameters that have different values for the development, test and production environments. Some packages have additional parameters defined.
You plan to deploy the SSIS packages to one server. The server will also host the production data warehouse.
You need to deploy and configure the packages.
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.



Answer:

Box 1:

Create an XML configuration file to be referenced by each package.

Box 2:

In an XML editor, map project parameters in the XML configuration file.

Box 3:

Deploy the packages by using the SSIS package deployment model. In SQL Server Management Studio, create an environment in the SSIS catalog.

Question: 81

The Sales database includes a table named Products that contains 42 columns, and two tables that record all product sales transactions. The database does not store aggregated data. The database is continually maintained to provide optimal indexing. The database server is sized appropriately.
The Marketing department requests a delimited text file that includes seven fields containing product information from the Products table.
You have the following requirements:
Display the ProductID in the first column. Organize the remaining columns alphabetically by column heading.
Sort rows in ProductID order.
Aggregate product units sold.
Minimize the time required to return the results.

You create a SQL Server Integration Services (SSIS) package and add the appropriate connection managers and a Data Flow task.
You need to develop the Data Flow task.
What should you add to the Data Flow task? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. A table-based OLE DB source; a Script component; and a Flat File destination.
B.Only a SQL command-based OLE DB source and a Flat File destination.
C.A table-based OLE DB source; Lookup, Aggregate, and Sort transformations; and a Flat File destination.
D.A SQL command-based OLE DB source; Aggregate and Sort transformations; and a Flat File destination.

Answer: D

Question: 82

HOTSPOT
A company maintains separate environments for test, production, and quality assurance. The company uses the project deployment model for SQL Server Integration Services (SSIS) deployments.
You create an SSIS project to perform a weekly refresh of the company's data warehouse and cubes. The project has three packages.
You need to configure the project to ensure so that the test and production teams can run each package without manually adding server-specific information.
Which program should you use?
To answer, select the appropriate program in the answer area.

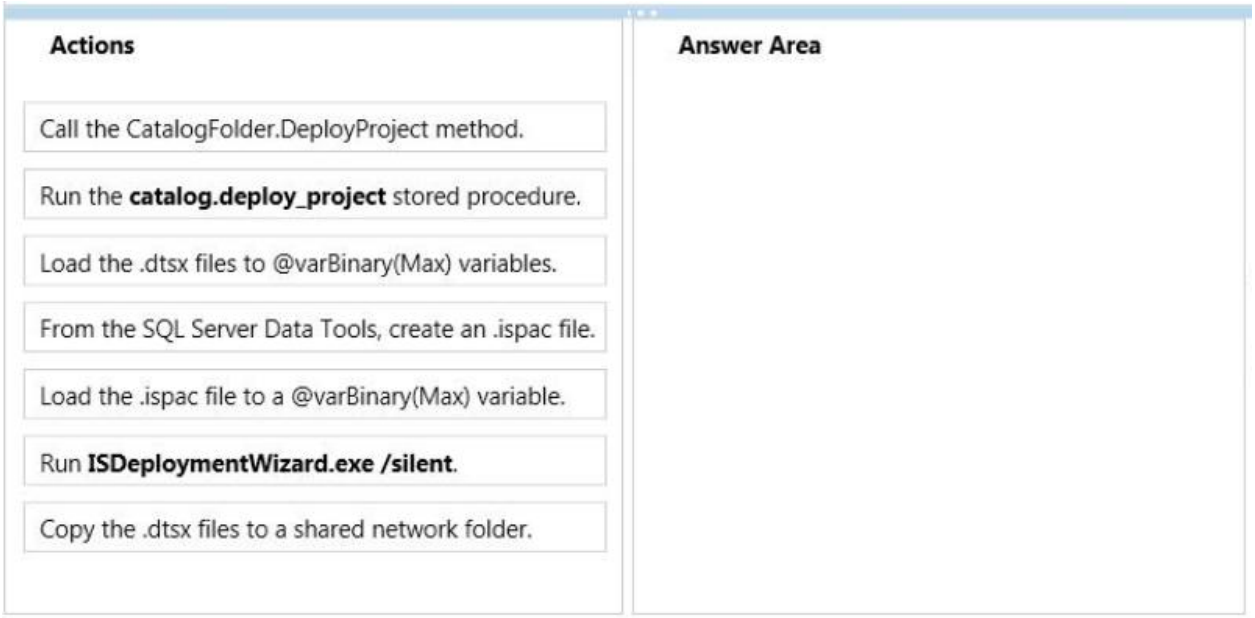
Answer:

SQL Server Management Studio

Question: 83

DRAG DROP
You have a business intelligence (BI) infrastructure.

You create a SQL Server Integration Services (SSIS) project that contains the packages for the BI infrastructure.
You need to automate the deployment of the SSIS project. The solution must ensure that the deployment can occur as part of an unattended Transact-SQL script.
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.



Answer:

Box 1:

From the SQL Server Data Tools, create an .ispac file.

Box 2:

Load the .ispac file to a @varBinary(Max) variable.

Box 3:

Run the **catalog.deploy_project** stored procedure.

Question: 84

You are creating a calculated measure in a sales cube by using a Multidimensional Expressions (MDX) calculation. The cube includes a date dimension. The date dimension has a hierarchy named Calendar that includes Calendar Year, Month, and Day attributes.
The calculated measure must calculate the year-to-date sales for the current slicer. The MDX calculation must work for as many hierarchy levels as possible.
You need to create a calculated measure for the cube that meets the requirements.
Which expression should you use in the calculation designer? (More than one answer choice may achieve the goal. Select the BEST answer.)

A.
```
SUM(ParallelPeriod([Date].[Calendar].[Calendar Year], -1,
[Date].[Calendar].CurrentMember), [Measures].[Sales Amount])
```

B.
```
SUM({[Date].[Calendar].CurrentMember.Parent.FirstChild:
[Date].[Calendar].CurrentMember}, [Measures].[Sales Amount])
```

C.
```
(ANCESTOR([Date].[Calendar].CurrentMember, [Date].[Calendar].
[Calendar Year]), [Measures].[Sales Amount])
```

D.
```
SUM(PeriodsToDate([Date].[Calendar].[Calendar Year], [Date].
[Calendar].CurrentMember), [Measures].[Sales Amount])
```

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

Answer: B

Question: 85

You are designing a customer dimension for a multidimensional OLAP (MOLAP) database. The dimension table will contain millions of rows of data.
Customer dimension attributes will come from the following two sources:
An enterprise resource planning (ERP) system that contains millions of rows of data. Attributes from this source will be updated daily.
A marketing database that contains thousands of rows of data representing customers' geographic information. Attributes from this source will be updated monthly.
Most report queries against the cube use attributes from both sources. Customers in the cube dimension will frequently be filtered by the geographic attributes.
You need to design the dimension table and cube dimension to ensure that report queries perform well, and minimize the time required to reprocess cube attributes.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)
A. Create a dimension table for each source. Create one cube dimension that joins the two dimension tables together.
B.Create one dimension table that combines data from both sources. Create a cube dimension for each source.
C.Create one dimension table that combines data from both sources. Create one cube dimension that references the dimension table.
D.Create a dimension table for each source, and a cube dimension for each source.

Answer: D

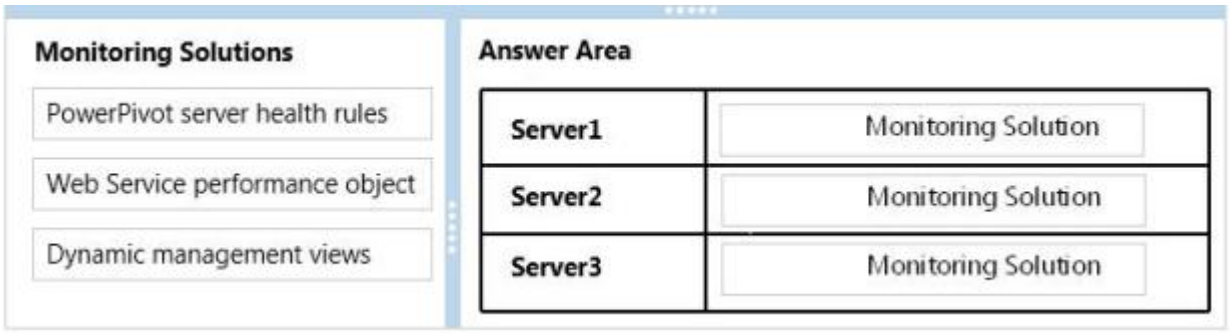
Question: 86

DRAG DROP
You have a business intelligence (BI) infrastructure that contains three servers. The servers are configured as shown in

the following table.

Server name	Role
Server1	Front-end Web server that has Microsoft SharePoint Server installed
Server2	Application server and database server that has Microsoft SharePoint Server installed
Server3	SQL Server Analysis Services (SSAS) SQL Server Integration Services (SSIS) SQL Server Reporting Services (SSRS)

You need to recommend a health monitoring solution for the BI infrastructure.
The solution must meet the following requirements:
Monitor the status of the Usage Data Collection feature.
Monitor the number of end-users accessing the solution.
Monitor the amount of cache used when the users query data.
Which health monitoring solution should you recommend using on each server? To answer, drag the appropriate monitoring solutions to the correct servers. Each monitoring solution 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.



Answer:

Box 1: PowerPivot server health rules
Box 2:Dynamic management views
Box 3: PowerPivot server health rules

Question: 87

You have two servers named Served and Server2. Both servers have SQL Server 2012 installed. Both servers have a SQL Server Integration Services (SSIS) catalog.
You are preparing a disaster recovery plan for a business intelligence (BI) solution.
You need to ensure that the SSIS catalog from Server1 can be restored to Server2.
Which two actions should you perform on Server1? Each correct answer presents part of the solution.

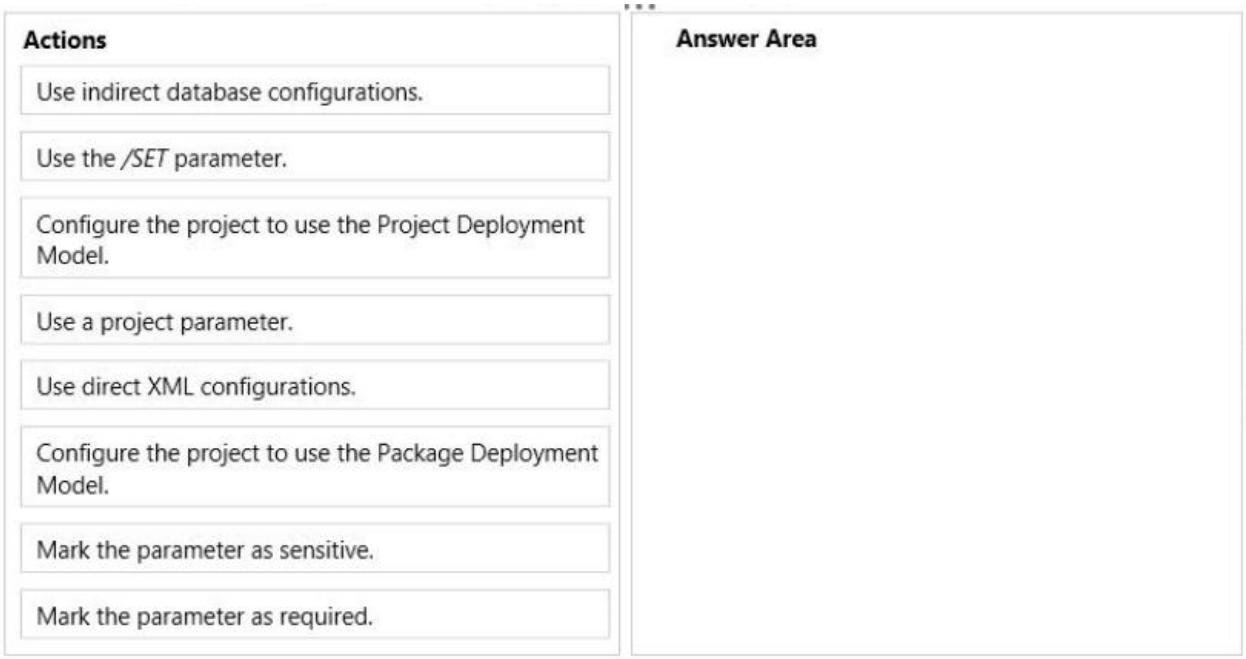
A. Back up the master database.
B.Run sp.configure 'clr enabled', 0.
C.Back up the master key of the SSISDB database.
D.Back up the master key of the master database.
E.Back up the SSISDB database.
F.Run sp_configure 'clr enabled', 1.

Answer: C, E

Question: 88

DRAG DROP

Your network contains a development environment, a staging environment, and a production environment.
You have a SQL Server Integration Services (SSIS) project. All of the packages in the project load data from files in a shared network folder. The packages use indirect XML configurations to set the location of the network folder.
The project is deployed to the three environments. Each environment has a different set of source files and a different network folder for the source files.
Currently, if an environment variable is missing, the package will use the network folder specified in the package, not the folder specified in the XML configuration file.
You need to ensure that each time a package is executed, the network folder location specified in the package is NOT used.
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.



Answer:

Box 1:

Configure the project to use the Project Deployment Model.

Box 2:

Use a project parameter.

Box 3:

Mark the parameter as required.

Question: 89

A company has a relational data warehouse, a SQL Server Analysis Services (SSAS) database, and a SQL Server Reporting Services (SSRS) instance. The SSAS database contains a cube named Sales. Shared data sources exist in SSRS for the relational and SSAS databases. Each company department has its own report writers.
Report writers in the Marketing department want to create new reports by using Report Builder. Many reports will include data generated by a custom formula that references data stored either in a data warehouse table or in the Sales cube. The custom formula will compare time periods across multiple products, categories, and regions.
You have the following requirements:
Ensure that only Marketing department report writers can access the custom formula.
Implement only one dataset.
Ensure that the dataset references the data source that will provide the fastest data retrieval.

You need to meet the requirements to support the Marketing department report writers.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Create, deploy, and secure a shared dataset that references the SSAS database shared data source and includes a calculated member for the custom formula.
B.Create a calculated member in the Sales cube. Create, deploy, and secure a shared dataset that references the SSAS database shared data source and includes the calculated member from the cube.
C.Create and secure in the data warehouse a stored procedure that implements the custom formula. Create and deploy a shared dataset that references the data warehouse shared data source.
D.Create, deploy, and secure a shared dataset that references the data warehouse shared data source and includes custom Transact-SQL (T-SQL) code for the custom formula.

Answer: B

Question: 90

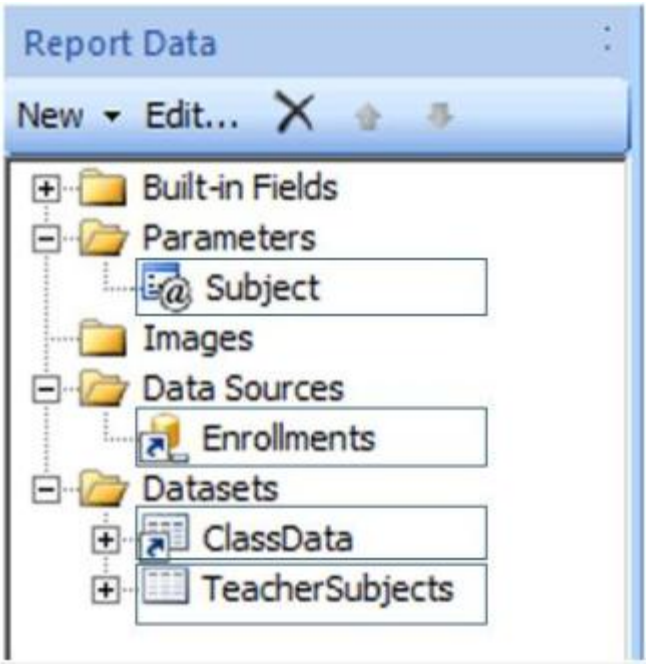
You are designing a self-service reporting solution based on published PowerPivot workbooks.
The reporting solution must allow users to perform the following tasks:
Easily create reports.
Create report queries by dragging and dropping fields.
Create presentation-quality reports with minimal effort.
You need to choose a reporting tool that meets the requirements.
Which reporting tool should you choose? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Report Builder
B.Report Designer
C.Power View
D.Microsoft Excel

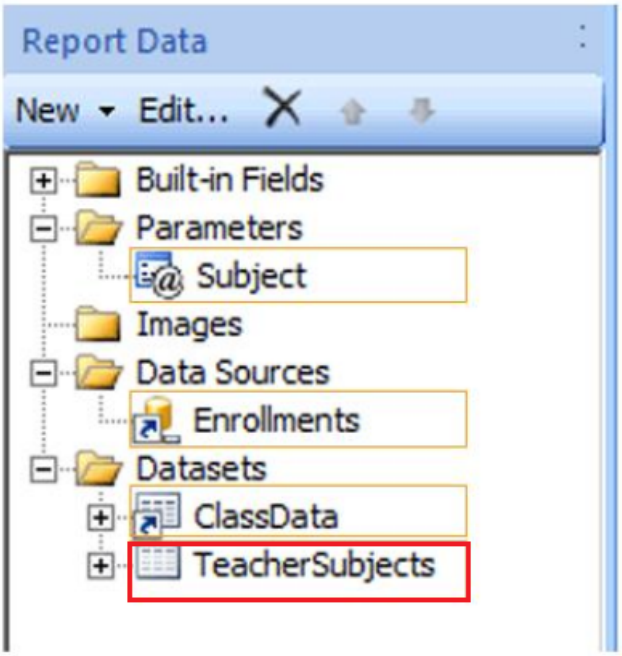
Answer: C

Question: 91

HOTSPOT
A school stores information about teachers, students, classes, and enrollments in a Microsoft Azure SQL Database database. The database includes a table that maps the user IDs of teachers to the subjects they teach.
Teachers access reports in a SQL Server Reporting Services (SSRS) instance by using their credentials.
You are developing a report that displays a table of class enrollments for a specific subject. The report will prompt teachers to select from their mapped subjects. The table is based on a dataset named ClassData. To minimize report execution time, the ClassData dataset has been configured to cache all class enrollment data.
You need to ensure that the report displays the correct class enrollment data.
Which item should you configure?
To answer, select the appropriate item in the answer area.



Answer:



Question: 92

You are designing a subscription strategy for a SQL Server Reporting Services (SSRS) report.
You have an application that populates a table with user-specific subscription schedules and report formats.
You need to ensure that users can receive reports by email according to their preferences. Email messages will be sent via an internal mail server.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Create a standard SSRS subscription for each record in the table.
B.Create a data-driven SSRS subscription for each record in the schedule table.

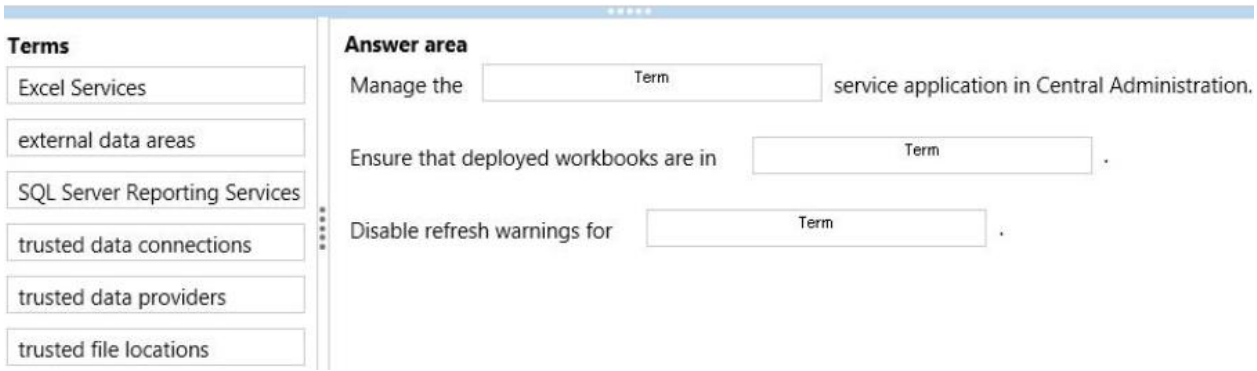
C.Create a standard SSRS subscription for each subscription schedule.
D.Create one data-driven SSRS subscription. Schedule the subscription to frequently retrieve user preferences.

Answer: D

Explanation:
Ref: http://technet.microsoft.com/en-us/library/ms187066(v=sql.105).aspx

Question: 93

DRAG DROP
You are configuring an Excel Services service application in a Microsoft SharePoint farm.
Users will deploy Excel workbooks to SharePoint libraries that allow interaction with PivotTables through Excel Services. PivotTable data is sourced from secured SQL Server Analysis Services (SSAS) cubes and PowerPivot models inside published workbooks.
You need to ensure that users can refresh the PivotTables from within Excel Services without a warning message appearing.
What should you do?
To answer, drag the appropriate term or terms to the correct location or locations in the answer area. (Use only terms that apply.)



Answer:

Box 1:

Excel Services

Box 2:

trusted file locations

Box 3:

trusted data connections

Question: 94

A hospital has a relational data warehouse, a SQL Server Analysis Services (SSAS) database, and a SQL Server Reporting Services (SSRS) instance. The SSAS database contains a cube named Pharmacy. Shared data sources exist in SSRS for the relational and SSAS databases. Each hospital department has its own report writers.
Report writers in the Human Resources (HR) department want to create new reports by using Report Builder. Many reports will include data generated by a custom formula that references data stored either in a data warehouse table or in the Pharmacy cube. The custom formula will compare time periods across multiple products, categories, and employees.

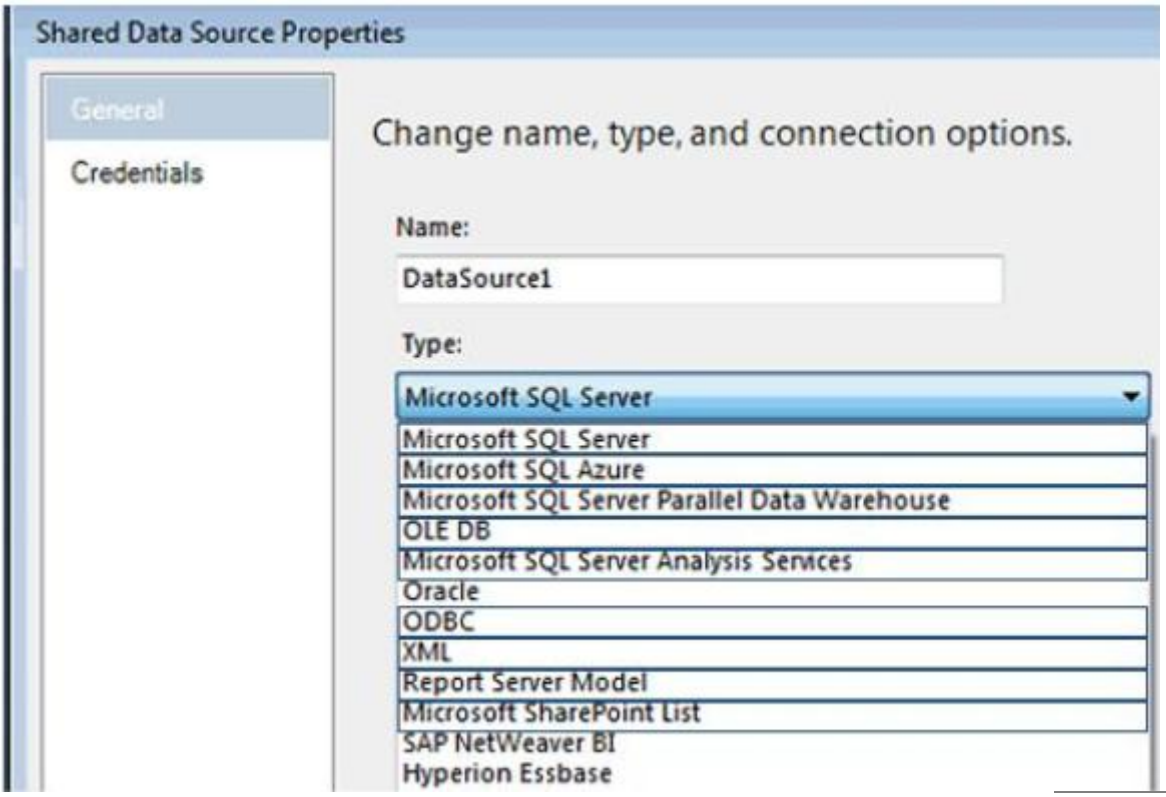
You have the following requirements:
Ensure that only the HR department report writers can access the custom formula.
Implement only one dataset.
Ensure that the dataset references the data source that will provide the fastest data retrieval.
You need to meet the requirements to support the HR department report writers.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Create, deploy, and secure a shared dataset that references the data warehouse shared data source and includes custom Transact-SQL (T-SQL) code for the custom formula.
B.Create a calculated member in the Pharmacy cube. Create, deploy, and secure a shared dataset that references the SSAS database shared data source and includes the calculated member from the cube.
C.Create and secure in the data warehouse a stored procedure that implements the custom formula. Create and deploy a shared dataset that references the data warehouse shared data source.
D.Create, deploy, and secure a shared dataset that references the SSAS database shared data source and includes a calculated member for the custom formula.

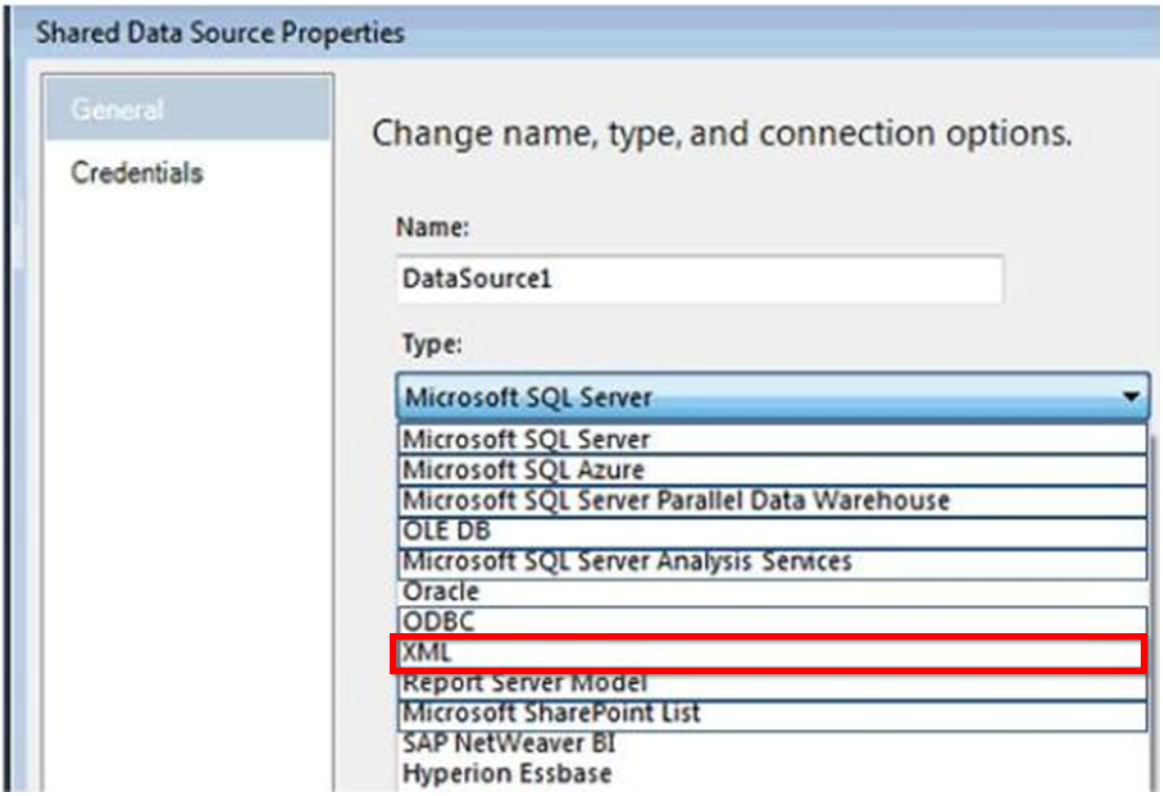
Answer: B

Question: 95

HOTSPOT
You are developing a SQL Server Reporting Services (SSRS) solution.
You plan to create reports based on the results of a currency exchange SOAP web service call.
You need to configure a shared data source.
Which data source type should you use?
To answer, select the appropriate type from the drop-down list in the answer area.



Answer:



Question: 96

Your network contains the following components:
Microsoft SharePoint Server 2010
SQL Server 2008 Service Pack 2 (SP2)
SQL Server 2008 Service Pack 1 (SP1) in Reporting Services Native Mode
You need to recommend a solution to upgrade the network to SQL Server 2014.
The solution must meet the following requirements:
Minimize the amount of time that SharePoint services are unavailable.
Deploy the upgraded Reporting Services instance in Reporting Services SharePoint Integrated Mode.
You upgrade the Database Engine to SQL Server 2014.
Which three actions should you recommend performing next? Each correct answer presents part of the solution.

A. Install a SQL Server 2014 Reporting Services add-in for SharePoint on all of the front-end Web servers that have SharePoint Server installed.
B.Perform an in-place upgrade to SQL Server Reporting Services (SSRS) 2014.
C.Perform a SharePoint 2013 side-by-side upgrade.
D.Perform a SharePoint 2013 in-place upgrade.
E.Migrate legacy reports and application data.
F.Install a new instance of SQL Server Reporting Services (SSRS) 2014.

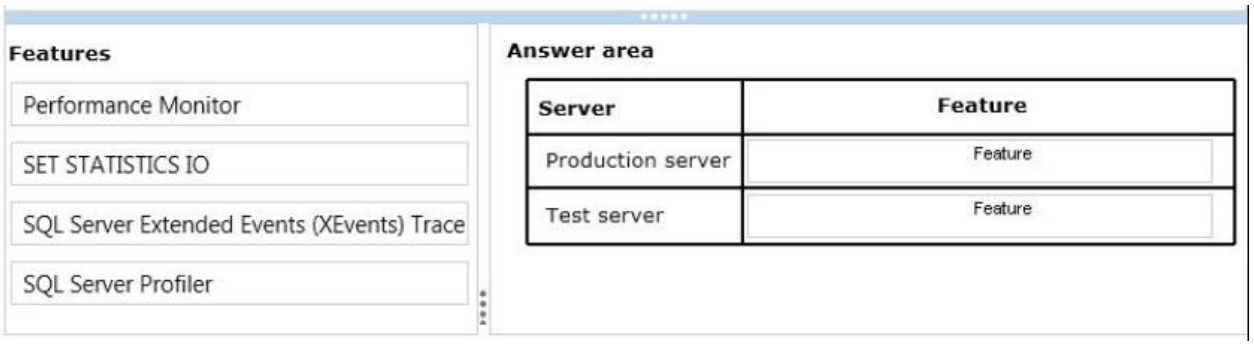
Answer: A, E, F

Question: 97

DRAG DROP
Several reports are based on the same SQL Server Analysis Services (SSAS) cube. Each report has several datasets defined with complex Multidimensional Expressions (MDX) queries. The company maintains separate development,

test and production environments.

The reports are running slowly. You plan to analyze report performance. You have the following requirements:
Monitor query statistics on the production server with as little server overhead as possible.
Gather, replay, and analyze statistics on the test server with as little administrative effort as possible.
Identify the longest-running queries on both servers.
Document statistics on disk reads on both servers.
You need to gather statistics and meet the requirements.
Which features should you use?
To answer, drag the appropriate feature or features to the correct location or locations in the answer area. (Use only features that apply.)



Answer:

Box 1:

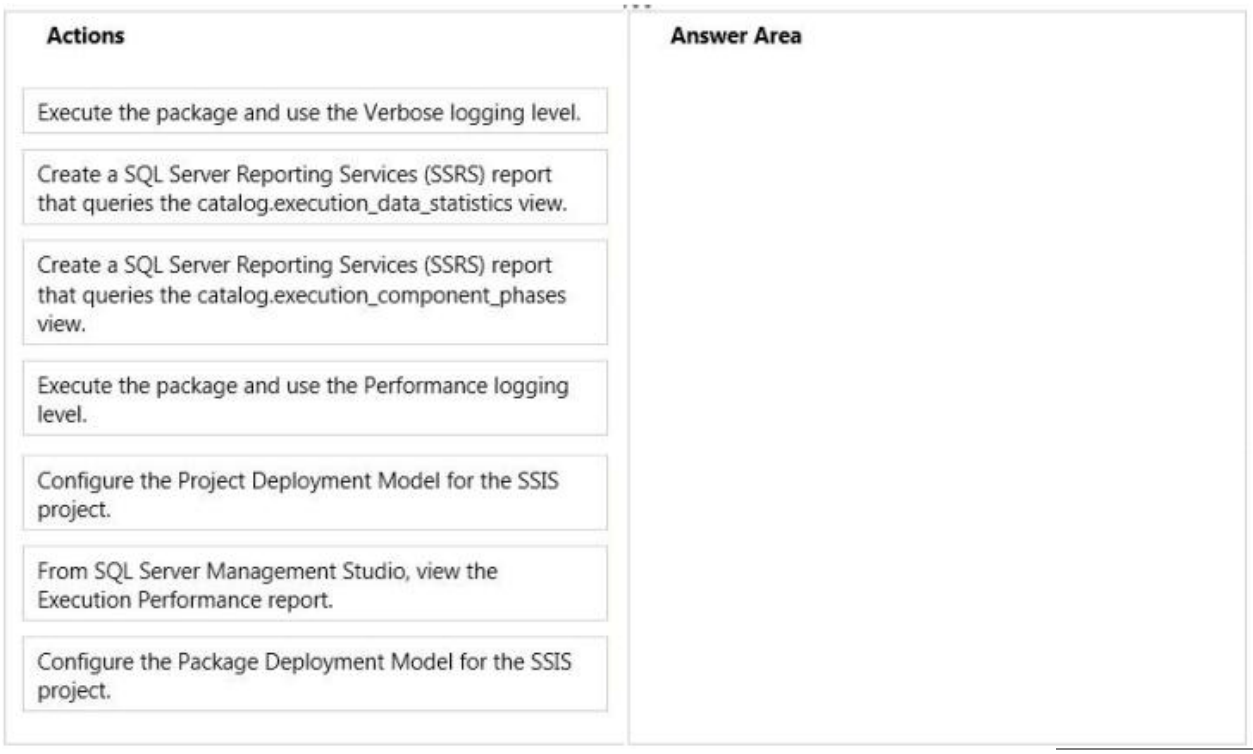
SQL Server Extended Events (XEvents) Trace

Box 2:

SQL Server Profiler

Question: 98

DRAG DROP
You have a business intelligence (BI) solution that uses SQL Server Integration Services (SSIS). The BI solution includes an extract transformation, and load (ETL) system.
You are designing a logging and auditing strategy for the ETL system.
You need to ensure that an ETL administrator can view the row counts of any data flow path for each package execution.
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.



Answer:

Box 1:

Configure the Package Deployment Model for the SSIS project.

Box 2:

Execute the package and use the Verbose logging level.

Box 3:

Create a SQL Server Reporting Services (SSRS) report that queries the catalog.execution_data_statistics view.

Question: 99

DRAG DROP

You are the administrator of a SQL Server Integration Services (SSIS) catalog. You have access to the original password that was used to create the SSIS catalog.

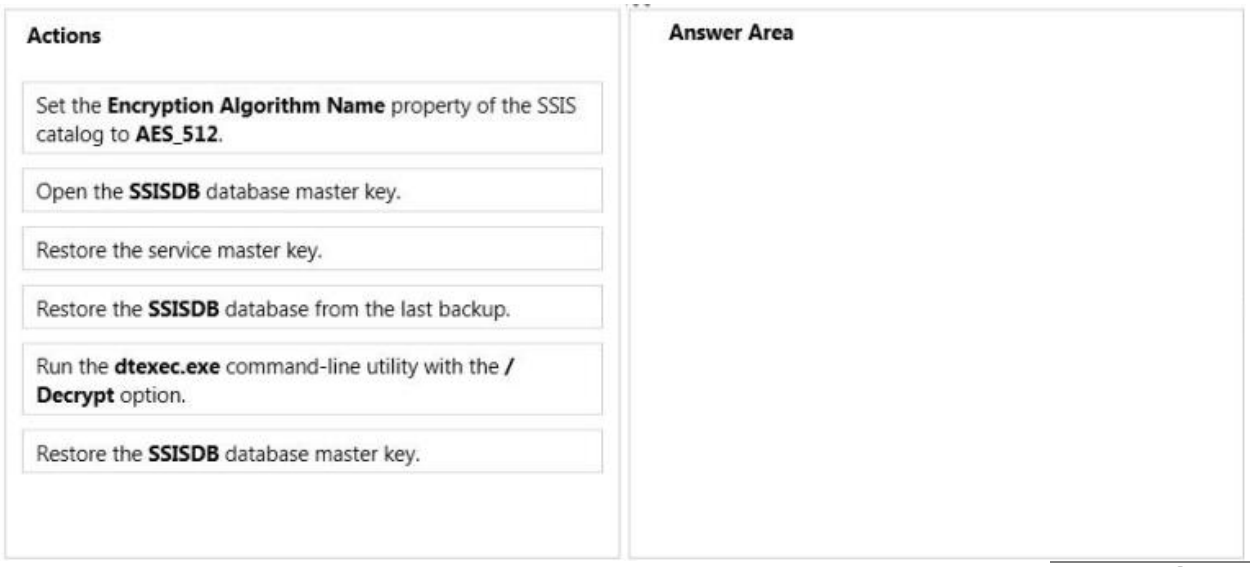
A full database backup of the SSISDB database on the production server is made each day. The server used for disaster recovery has an operational SSIS catalog.

The production server that hosts the SSISDB database fails.

Sensitive data that is encrypted in the SSISDB database must not be lost.

You need to restore the production SSIS catalog to the disaster recovery server.

Which three steps 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.



Answer:

Box 1:

Restore the **SSISDB** database from the last backup.

Box 2:

Restore the **SSISDB** database master key.

Box 3:

Open the **SSISDB** database master key.

Question: 100

HOTSPOT

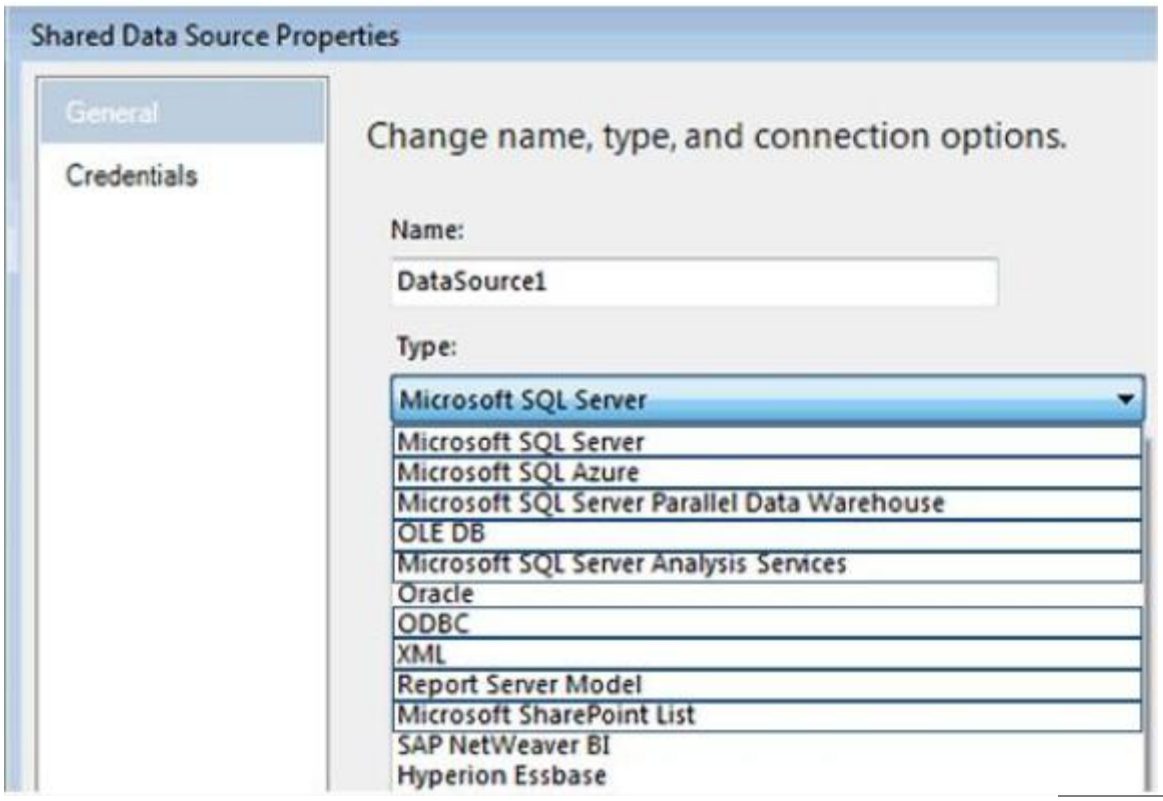
You are developing a SQL Server Reporting Services (SSRS) solution.

You plan to create reports based on a SQL Server Analysis Services (SSAS) tabular database configured in DirectQuery mode.

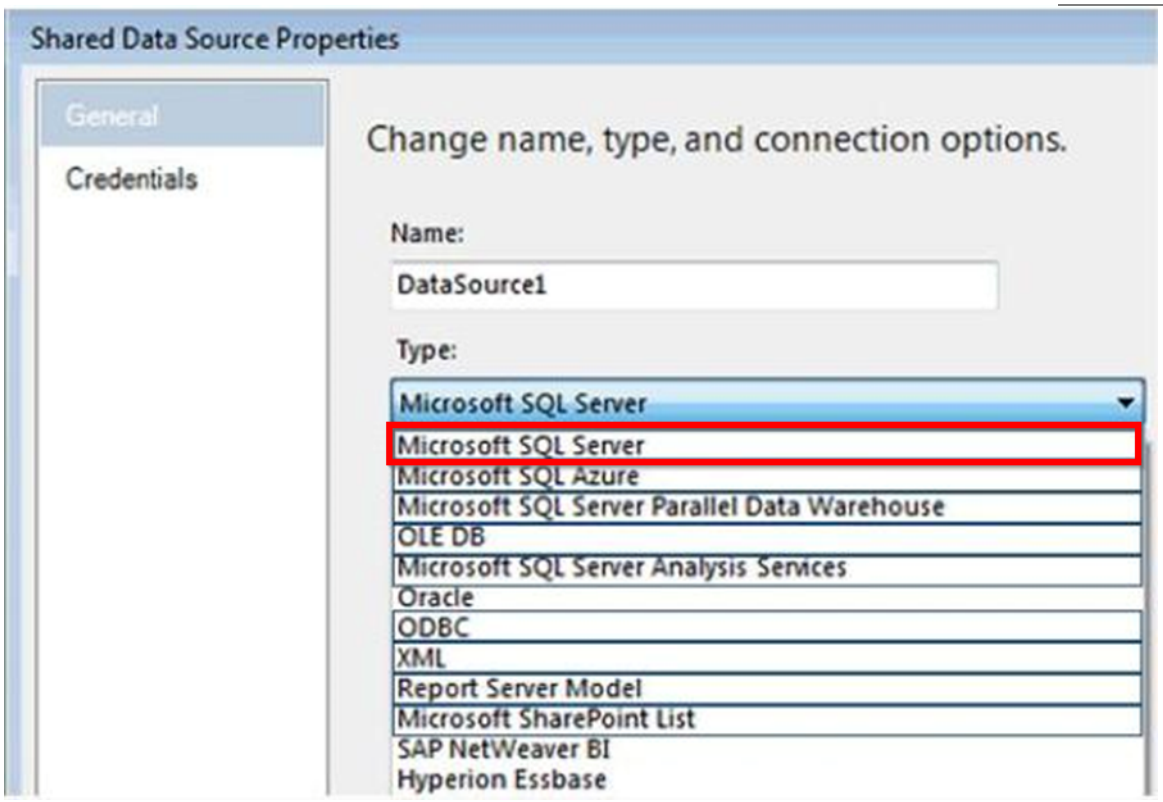
You need to configure a shared data source.

Which data source type should you use?

To answer, select the appropriate type from the drop-down list in the answer area.



Answer:



Question: 101

You have a SQL Server Reporting Services (SSRS) 2012 instance integrated with a Microsoft SharePoint 2010 farm.
You need to upgrade to SSRS 2014 with the minimum downtime and hardware requirements.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Install SSRS 2014 on a new SharePoint farm and migrate content to the new farm.
B.Migrate SSRS content to new servers that run SSRS 2014.
C.Migrate SSRS content to a separate instance of SSRS 2014 on the same server.
D.Perform an in-place upgrade of the SSRS environment.

Answer: D

Explanation:
We cannot do a side-by-side installation (answer C) because that's not supported in SharePoint mode so an in-place upgrade is the only option that doesn't require additional servers.
SQL Server 2014 Reporting Services (SSRS) Native mode can be installed side-by-side with a SQL Server 2012 Native mode deployment.
There is no support for side-by-side deployments of SQL Server 2014 Reporting Services (SSRS) SharePoint mode and any previous versions of SharePoint mode components.

Question: 102

You are designing a partitioning strategy for a SQL Server Analysis Services (SSAS) cube.
New data is loaded in real-time into the data warehouse that feeds the cube. Between 10 million and 15 million rows of data are loaded into the main fact table each day from a Microsoft Azure SQL Database.
You have the following requirements:
Maximize cube query performance during business hours.
Ensure that data is available in the cube as soon as possible after it is loaded into the data warehouse.
You need to design a partitioning strategy that meets the requirements.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Partition the cube by day for history, using hybrid OLAP (HOLAP) storage mode. Create a daily partition that uses multidimensional OLAP (MOLAP) storage mode during the day. Reprocess the partition incrementally during the day.
B.Partition the cube by week for history. Create a daily partition that uses multidimensional OLAP (MOLAP) storage mode. Process the partition periodically to add new data.
C.Partition the cube by day for history, using multidimensional OLAP (MOLAP) storage mode. Create a daily partition that uses proactive caching during the day. Reprocess the partition in full MOLAP storage mode at night
D.Partition the cube by day for history, using multidimensional OLAP (MOLAP) storage mode. Create a daily partition that uses relational OLAP (ROLAP) storage mode during the day. Reprocess the partition in full MOLAP storage mode at night.

Answer: A

Question: 103

DRAG DROP
You are developing a SQL Server Analysis Services (SSAS) tabular project.
You need to add a calculated column to a table in the model.
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.)

On the Design ribbon inside the Columns group, click **Add**.

Click **Add Formula** and then add a Data Analysis Expressions (DAX) function.

In the formula bar, type an equal sign followed by a Data Analysis Expressions (DAX) expression.

In the formula bar, type an equal sign followed by a Multidimensional Expressions (MDX) expression.

On the **Column** menu, select **Add Column**.

In the model designer, select the table to which you want to add a calculated column.

Answer:

Box 1:

In the model designer, select the table to which you want to add a calculated column.

Box 2:

On the **Column** menu, select **Add Column**.

Box 3:

In the formula bar, type an equal sign followed by a Data Analysis Expressions (DAX) expression.

Explanation:

Note:

* To create a new calculated column

1. In the model designer, in Data View, select the table to which you want to add a calculated column, then click the Column menu, and then click Add Column.

Add Column is highlighted over the empty rightmost column, and the cursor moves to the formula bar.

To create a new column between two existing columns, right-click an existing column, and then click Insert Column.

2. In the formula bar, do one of the following:

- Type an equal sign followed by a formula.
- Type an equal sign, followed by a DAX function, followed by arguments and parameters as required by the function.
- Click the function button (fx), then in the Insert Function dialog box, select a category and function, and then click OK. In the formula bar, type the remaining arguments and parameters as required by the function.

3. Press ENTER to accept the formula.

* Calculated columns, in tabular models, allow you to add new data to your model. Instead of pasting or importing values into the column, you create a DAX formula that defines the column's row level values. The calculated column can then be used in a report, PivotTable, or PivotChart as would any other column.

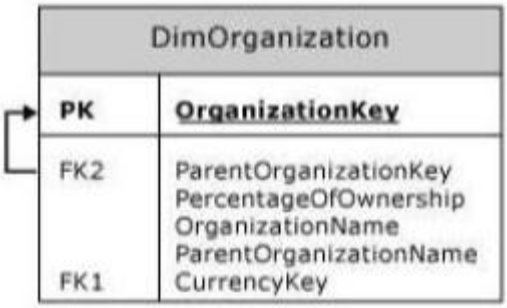
* A calculated column is DAX expression that creates a new column in a table and the obtained values are stored in the table; the calculated column expression is evaluated every time the table is processed.

* In tabular object models the calculated column is a column in a table whose values are calculated upon definition of the column, from an expression.

Reference: Create a Calculated Column (SSAS Tabular)

Question: 104

You are developing a multidimensional project that includes a dimension named Organization. The dimension is based on the DimOrganization table in the data warehouse. The following diagram illustrates the table design.



The Organization dimension includes a parent-child hierarchy named Organizations.
The dimension includes the following dimension attributes:
Organization, which is a key attribute
Organizations, which defines the parent-child hierarchy
Currency Code, which is a regular attribute
When users browse the dimension, three hierarchies are visible to them.
You need to ensure that the Organization hierarchy is not visible to users.
What should you do?

A. Set the AttributeHierarchyDisplayFolder property to Null for the Organization attribute.
B. Delete the Organization attribute.
C. Set the AttributeHierarchyEnabled property to False for the Organization attribute.
D. Set the AttributeHierarchyVisible property to False for the Organization attribute.

Answer: D

Question: 105

You are conducting a design review of a multidimensional project.
In the geography dimension, all non-key attributes relate directly to the key attribute. The underlying data of the geography dimension supports relationships between attributes.
You need to increase query and dimension processing performance.
What should you do?

A. For the geography dimension, set the ProcessingMode property to LazyAggregations
B. For the dimension attributes of the geography dimension, define appropriate attribute relationships.
C. For the geography dimension, set the ProcessingPriority property to 1.
D. For the dimension attributes of the geography dimension, set the GroupingBehavior property to EncourageGrouping.

Answer: B

Question: 106

DRAG DROP
You are developing a SQL Server Analysis Services (SSAS) cube.
You need to reuse a Revenue measure group from a different database.
In SQL Server Data Tools (SSDT), 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.)

From the **Select a Data Source** step, reference the Analysis Services data source.

Launch the Linked Object Wizard.

From the **Select Objects** step, select the Revenue measure group and the dimensions that you need to link.

Launch the Business Intelligence Wizard.

From the **Select Objects** step, select the Revenue measure group that you need to link.

Answer:

Box 1:

Launch the Linked Object Wizard.

Box 2:

From the **Select a Data Source** step, reference the Analysis Services data source.

Box 3:

From the **Select Objects** step, select the Revenue measure group and the dimensions that you need to link.

Explanation:
Note:
* you can use the Linked Object Wizard to add a measure group from another database
* You can use the Linked Object Wizard to either link to or import cubes, dimensions, measure groups, calculations, and Key Performance Indicators (KPIs). You can link to or import these items from another database on the same server or from a database on a remote server
* The Linked Object Wizard guides you through the following steps:
Selecting the Analysis Services data source from which to link or import objects.
Selecting the objects from which to link or import.
Saving the changes.
* Use the Select Objects page to select the objects that will be linked to or imported.
Dimensions and measure groups (including the associated measures) are linked. Actions, key performance indicators (KPIs), and calculations are imported.

Question: 107

DRAG DROP
You are developing reports based on the SQL Server Analysis Services (SSAS) cube named ProcessedOrders.
A Multidimensional Expressions (MDX) query must include a query-scoped calculated member, which computes average sales per order item. The query must also return the set of three states in a query-scoped named set named East Coast Customers.
You need to define the calculations in an MDX query to meet the requirements.
Which four MDX segments should you insert in sequence before a SELECT statement? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

```
MEMBER [Average Sales per Processed Order
Item] AS

MEASURE [Average Sales per Processed Order
Item] AS

WITH SET [East Coast Customers] AS

{[Measures].[Sales]/[Measures].[ProcessedOrder
Quantity]}

([Measures].[Sales]/[Measures].[ProcessedOrder
Quantity])

;

{[Customer].[Geography].[State].&[QLD]&[AU],
[Customer].[Geography].[State].&[NSW]&[AU],
[Customer].[Geography].[State].&[VIC]&[AU]}
```

Answer:

Box 1:

```
WITH SET [East Coast Customers] AS
```

Box 2:

```
{[Customer].[Geography].[State].&[QLD]&[AU],
[Customer].[Geography].[State].&[NSW]&[AU],
[Customer].[Geography].[State].&[VIC]&[AU]}
```

Box 3:

MEMBER [Average Sales Per Processed Order Item] AS

Box 4:

```
([Measures].[Sales]/[Measures].[ProcessedOrder
Quantity])
```

Explanation:

Note:

* Example #1:

```
WITH
  MEMBER [Measures].[Special Discount] AS
  [Measures].[Discount Amount] * 1.5
SELECT
  [Measures].[Special Discount] on COLUMNS,
  NON EMPTY [Product].[Product].MEMBERS  ON Rows
FROM [Adventure Works]
WHERE [Product].[Category].[Bikes]
```

* Example 2:

```
WITH SET [ChardonnayChablis] AS
  {[Product].[All Products].[Drink].[Alcoholic Beverages].[Beer and Wine].[Wine].[Good].[Good Chardonnay],
  [Product].[All Products].[Drink].[Alcoholic Beverages].[Beer and Wine].[Wine].[Pearl].[Pearl Chardonnay],
        [Product].[All Products].[Drink].[Alcoholic Beverages].[Beer and Wine].[Wine].[Portsmouth].[Portsmouth Chardonnay],
      [Product].[All Products].[Drink].[Alcoholic Beverages].[Beer and Wine].[Wine].[Top Measure].[Top Measure Chardonnay],
  [Product].[All Products].[Drink].[Alcoholic Beverages].[Beer and Wine].[Wine].[Walrus].[Walrus Chardonnay],
  [Product].[All Products].[Drink].[Alcoholic Beverages].[Beer and Wine].[Wine].[Good].[Good Chablis Wine],
  [Product].[All Products].[Drink].[Alcoholic Beverages].[Beer and Wine].[Wine].[Pearl].[Pearl Chablis Wine],
```

[Product].[All Products].[Drink].[Alcoholic Beverages].[Beer and Wine].[Wine].[Portsmouth].[Portsmouth Chablis Wine],
[Product].[All Products].[Drink].[Alcoholic Beverages].[Beer and Wine].[Wine].[Top Measure].[Top Measure Chablis Wine],
[Product].[All Products].[Drink].[Alcoholic Beverages].[Beer and Wine].[Wine].[Walrus].[Walrus Chablis Wine]}
SELECT
[ChardonnayChablis] ON COLUMNS,
{Measures.[Unit Sales]} ON ROWS
FROM Sales
Reference:
http://technet.microsoft.com/en-us/library/ms146017.aspx
http://technet.microsoft.com/en-us/library/ms145487.aspx

Question: 108

You are developing a BI Semantic Model (BISM) that will be used to analyze complex budgeting and forecast data sourced from a financial database. The model will be deployed to a server with 28 GB of RAM.
The source data, located in a SQL Server data warehouse, is currently using 15 terabytes of disk space and is doubling in size every month. The model will be queried by staff in the accounting department by using Microsoft Excel 2010.
You need to ensure the highest query performance and scalability for the accounting department queries.
Which project type should you choose?

A. Tabular project that uses the In-Memory query mode
B. Tabular project that uses the DirectQuery query mode
C. Multidimensional project
D. PowerPivot workbook deployed to SharePoint

Answer: C

Question: 109

You are developing a BI Semantic Model (BISM) that retrieves data from several sources including a SQL Azure database and an OData data feed. The model will be deployed to a server with significantly more memory than the total size of the source data.
You have the data feed URL, which you will use when developing the model in SQL Server Data Tools (SSDT).
The model must meet the following requirements:
Maximize performance
Data latency of up to one month is acceptable
You need to choose a project type and a data access mode to meet the requirements.
What should you do?

A. Select the tabular project type and use the In-Memory query mode.
B. Select the multidimensional project type and use the MOLAP storage mode.
C. Select the tabular project type and use the DirectQuery query mode.
D. Select the multidimensional project type and use the ROLAP storage mode.

Answer: A

Question: 110

You are developing a SQL Server Analysis Services (SSAS) cube. The cube contains several dimensions, a local measure

group, and a linked measure group. Both measure groups use MOLAP partitions.
You need to write-enable one of the linked measure group partitions to support Microsoft Excel 2010 PivotTable What-If Analysis.
What should you do before the partition can be write-enabled?

A. Implement the linked measure group as a local measure group.
B. Implement the local measure group as a linked measure group.
C. Set the Type property of the partition's measure group to Forecast.
D. Set the StorageMode property of the linked measure group to Rolap.

Answer: A

Question: 111

HOTSPOT
You are developing a SQL Server Analysis Services (SSAS) cube.
You are writing the following Multidimensional Expressions (MDX) statement for use by a calculated measure. The measure computes the sales amount for the same time period of the previous year. (Line numbers are included for reference only.)

```
01    CREATE MEMBER CURRENTCUBE.Measures.SamePeriodPreviousYearSales AS
02    (Measures.[Sales Amount],
03    _________________ (
04        [Date Order].[Calendar].[Calendar Year],
05        1,
06        [Date Order].[Calendar].CurrentMember)),
07    FORMAT_STRING = "#,#.00";
```

You need to complete the MDX statement.
Which MDX function should you use in line 03? To answer, select the appropriate MDX function in the functions list.

Answer:

Question: 112

DRAG DROP

You are developing a SQL Server Analysis Services (SSAS) cube.

You need to add a calculated member to the Customer dimension to evaluate the sum of values for France and Germany.

Which expression should you use? (To answer, drag the appropriate expression to the answer area.)

```
[Customer].[Customer Geography].[Country].&[France] &
[Customer].[Customer Geography].[Country].&[Germany]
```

```
{[Customer].[Customer Geography].[Country].&[France],
[Customer].[Customer Geography].[Country].&[Germany]}
```

```
[Customer].[Customer Geography].[Country].&[France] UNION
[Customer].[Customer Geography].[Country].&[Germany]
```

```
SUM({[Customer].[Customer Geography].[Country].&[France],
[Customer].[Customer Geography].[Country].&[Germany]})
```

```
SUM(([Customer].[Customer Geography].[Country].&[France],
[Customer].[Customer Geography].[Country].&[Germany]))
```

```
CREATE MEMBER
CURRENTCUBE.[Customer].[Customer Geography].[All].[Average FR and DE] AS
```

Answer:

Box 1:

```
SUM({[Customer].[Customer Geography].[Country].&[France],
[Customer].[Customer Geography].[Country].&[Germany]})
```

Explanation:

Note:

* Example:

The following example returns the sum of Reseller Sales Amounts for all members of the Product.Category attribute hierarchy for calendar years 2001 and 2002.

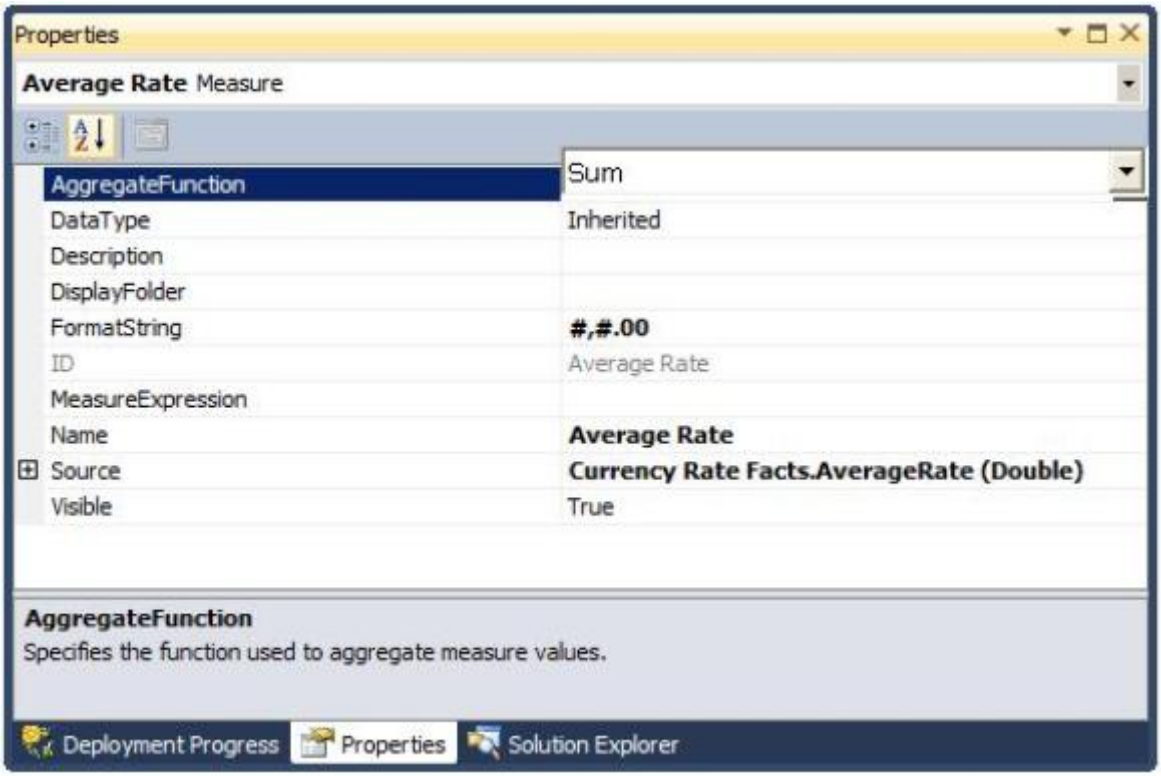
```
WITH MEMBER Measures.x AS SUM
  ( { [Date].[Calendar Year].&[2001]
      , [Date].[Calendar Year].&[2002] }
    , [Measures].[Reseller Sales Amount]
  )
SELECT Measures.x ON 0
,[Product].[Category].Members ON 1
FROM [Adventure Works]
```

* Calculated members are members of a dimension or a measure group that are defined based on a combination of cube data, arithmetic operators, numbers, and functions. For example, you can create a calculated member that

calculates the sum of two physical measures in the cube. Calculated member definitions are stored in cubes, but their values are calculated at query time.
* Measure values are generally summed, but may also be counted or aggregated in some other manner.

Question: 113

You are developing a SQL Server Analysis Services (SSAS) cube for the accounts department.
You create a measure group named Exchange Rate that consists of measures pertaining to currency exchange rates. One of the measures in this group is named Average Rate and it will be used to report the average currency exchange rate over time.
Currently the AggregationFunction property for the Average Rate measure is set to Sum.
You need to ensure that Average Rate measure reports the average of the currency exchange rate over time.
Which value should you select for the AggregationFunction property for the Average Rate measure? To answer, select the appropriate setting in the answer area.



A. AverageOfChildren
B. ByAccount
C. Count
D. DistinctCount
E. FirstChild
F. FirstNonEmpty
G. LastChild
H. LastNonEmpty
I. Max
J. Min
K. None
L. Sum

Answer: A

Explanation:

AverageOfChildren
Specifies average of leaf descendants in time. Average does not count an empty value as 0.

Question: 114

You are developing a SQL Server Analysis Services (SSAS) cube for the sales department at your company.
The sales department requires the following set of metrics:
Unique count of customers
Unique count of products sold
Sum of sales
You need to ensure that the cube meets the requirements while optimizing query response time.
What should you do? (Each answer presents a complete solution. Choose all that apply.)

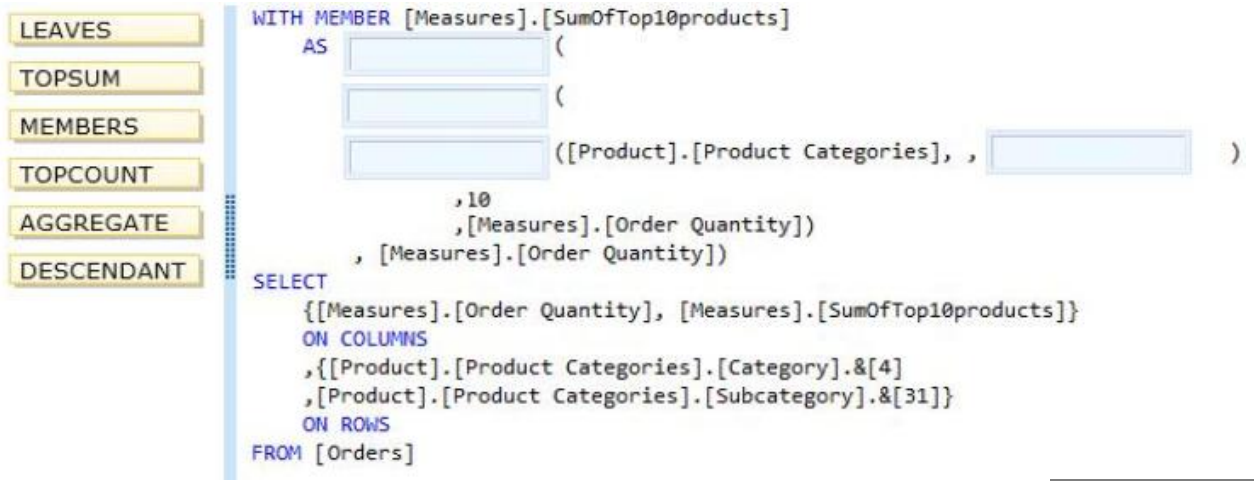
A. Use the Define Semiadditive Behavior page to enable semi-additive behavior.
B. Use ROLAP storage for all partitions.
C. Use the Define Semiadditive Behavior page to disable semi-additive behavior.
D. Use the Distinct Count and Sum measure aggregation functions.
E. Place the distinct count measures in separate measure groups.
F. Create a single measure group containing all measures

Answer: AE

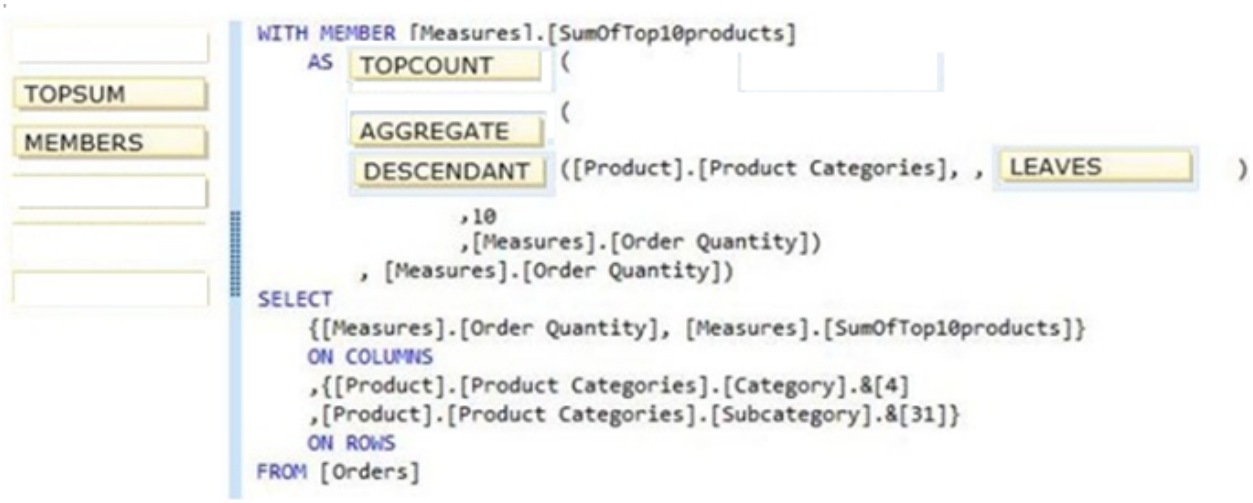
Explanation:
A: Semiadditive Function
Select the aggregation function for the selected measure.
The aggregate functions available include DistinctCount, Aggregated using the DistinctCount function.
E (not D, Not F): Typically, the best performance occurs when each distinct count measure is in its own measure group, and that measure group has the same dimensionality as the initial measure group.

Question: 115

DRAG DROP
You are using Multidimensional Expressions (MDX) to query a SQL Server Analysis Services (SSAS) cube.
You need to compute the aggregate value of the 10 most-ordered produces in the Product Categories hierarchy. The Product level is the lowest in the hierarchy.
Which functions should you use to complete the MDX query? (To answer, drag the appropriate functions from the list of functions to the correct locations in the answer area.)



Answer:



Explanation:
Note:
* Example (order of TopCount and Aggregate):
WITH
SET
[Top25Customers] as
TopCount([Customers].[All Customers].Children, 25.0, [Measures].[Sales])
MEMBER [Customers].[All Customers].[Rest of Customers] as
Aggregate(Except([Customers].[All Customers].Children,[Top25Customers]))
SELECT
NON EMPTY {CROSSJOIN([Markets].[All Markets].Children,{[Measures].Sales})}
ON COLUMNS,
Union([Top25Customers],{[Customers].[All Customers].[Rest of Customers]}) ON ROWS
from [SteelWheelsSales]
* TopCount: Sorts a set in descending order and returns the specified number of elements with the highest values.
*Aggregate:
Returns a number that is calculated by aggregating over the cells returned by the set expression. If a numeric expression is not provided, this function aggregates each measure within the current query context by using the default aggregation operator that is specified for each measure. If a numeric expression is provided, this function first evaluates, and then sums, the numeric expression for each cell in the specified set.
* Example:
One can extract the leaf members of a parent child hierarchy by asking the descendants of the root member with the following expression:
Descendants([Organization].[Organizations].&[1], , LEAVES)
* Incorrect:
/ Not TopSUM: Returns, in order of decreasing rank, the top-most rows of a table whose cumulative total is at least a specified value.

Question: 116

You are developing a BI Semantic Model (BISM) based on a simple and small dataset sourced from SQL Server. The data size and complexity of the data relationships will not change. The model will be used to produce reports in Power View.
You need to use an appropriate project type.
Which project types should you use? (Each answer presents a complete solution. Choose all that apply.)

A. a tabular project that uses the DirectQuery query mode

B. a tabular project that uses the In-Memory query mode
C. a multidimensional project that uses the ROLAP storage mode
D. a PowerPivot workbook that is deployed to Microsoft SharePoint Server 2010
E. a multidimensional project that uses the MOLAP storage mode

Answer: ABE

Explanation:
Power View is a thin web client that launches right in the browser from a data model in SharePoint Server 2010. The model can be a PowerPivot model workbook or a tabular model running on a SQL Server 2012 Analysis Services (SSAS) server.

Question: 117

You are modifying a SQL Server Analysis Service (SSAS) cube. The cube consist of a single measure group that contains the following measures:
Total Quantity On Hand
Average Quantity On Hand
The measure group has a single partition that uses the MOLAP storage mode.
You need to modify the cube design to ensure that the Total Quantity On Hand measure is updated in real-time and that Average Quantity On Hand measure is updated hourly.
What should you do?

A. Create a new measure group for the Total Quantity On Hand measure. Configure the storage mode for the new measure group's partition to ROLAP.
B. Create an XMLA script that will process the cube and then use SQL Server Agent to execute the script continuously.
C. Change the storage mode of the partition to use proactive caching with minimum latency.
D. Create a new measure group for the Average Quantity On Hand measure. Configure the storage mode for the new measure group's partition to ROLAP.

Answer: A

Question: 118

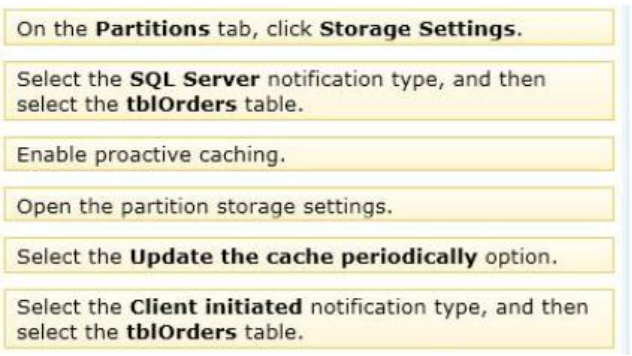
You are modifying a SQL Server Analysis Services (SSAS) cube.
Users of the cube report that the precision for the SalesAmount measure is four digits.
You need to ensure that the SalesAmount measure stores values to two digits of precision.
What should you do?

A. Add a named query in the data source view that casts the data source column to two digits of precision. Bind the SalesAmount measure to the new query.
B. Use the MeasureExpression measure property to change the precision of SalesAmount to two digits.
C. Add a named calculation in the data source view that casts the data source column to two digits of precision. Bind the SalesAmount measure to the new column.
D. Use the FormatString measure property to format SalesAmount as Currency.
E. Use the FormatString measure property to format SalesAmount as #,##0.00;-#,##0.00.

Answer: C

Question: 119

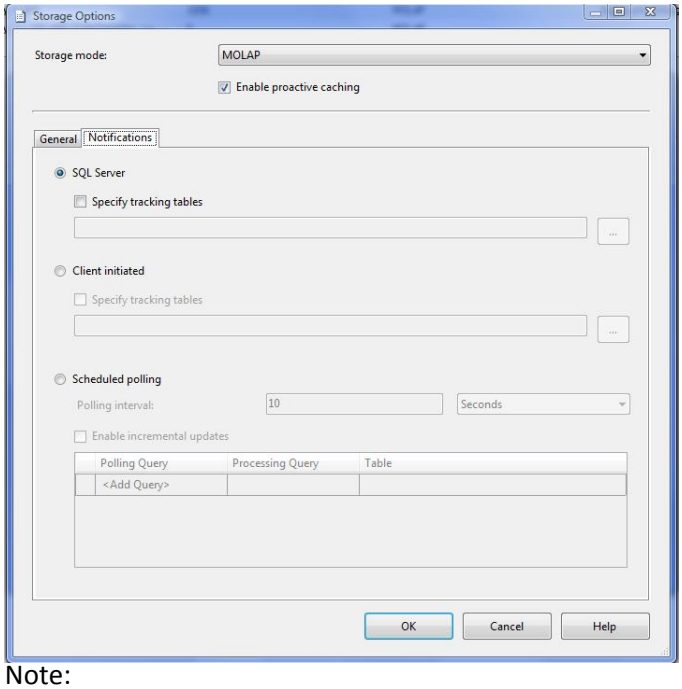
DRAG DROP
You are developing a SQL Server Analysis Services (S5AS) cube. The cube consists of a single measure group.
The measure group consists of one partition that uses MOLAP.
The proactive caching policy has the following requirements:
The cache must be updated when data is changed in the table named tblOrders.
Changes must be notified through the use of the XML for Analysis (XMLA) NotifyTableChange command.
You need to configure the proactive caching policy to meet the requirements.
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.)



Answer:

Box 1: On the Partitions tab, Click Storage Settings
We specify the Storage Settings for the correct partition.
Box 2: Enable proactive caching.
We enable proactive caching.
Box 3: Select the Client initiated notification type, and then select the tblOrders table.
On the Notifications tab, there are three options out of which, as shown below, you can select any one at a time.

Explanation:
* SQL Server - With this option, SSAS uses SQL Server notification services/specialized trace mechanism to identify data changes.
* Client initiated - With this option, client can specify the XMLA (XML for Analysis) command (NotifyTableChange) to identify data changes.
* Scheduled polling - With this option, SSAS uses a series of queries to see (polling at defined interval) if there is any data change at the underlying relational database.



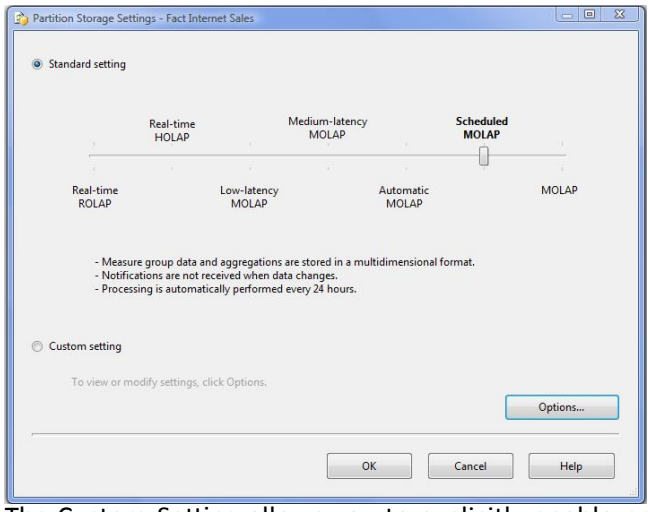
Note:

You use the Storage Settings dialog box in BIDS (Business Intelligence Development Studio) to set the proactive caching feature, storage location, and notification settings for a dimension, cube, measure group, or measure group partition.

In the Cube Browser, open your cube and select the Partitions tab.

Expand the measure group and select the partition for which you want to enable proactive caching.

Click the Storage Setting link to open the Partition Storage Settings dialog box similar to the one as shown in below image. (Box 1)



The Custom Setting allows you to explicitly enable proactive caching (if you don't want to use Standard Setting), set storage mode, and notification options. (Box 2)

Question: 120

You are developing a SQL Server Reporting Services (SSRS) report that renders in HTML. The report includes a dataset with fields named Description, Price, and Color. The report layout includes a table that displays product details and also includes columns named Description, Price, and Color.

You need to modify the report so that users can sort products by the Price column.

What should you do?

A. Add a custom action to the Price text box.
B. Set the SortExpression property to =Fields!Price.Value for the Price text box.
C. In the Expression dialog box for the Price text box, enter the =SortBy FieldslPrice.Value expression.
D. Set the SortExpression value to =Fields!Price.Description for the Price text box.

Answer: B

Question: 121

You are designing a SQL Server Reporting Services (SSRS) report.
The report defines a single SQL Server data source and dataset.
You need to include additional data sourced from a SQL Azure database in the report.
What should you do?

A. Create a SQL Azure dataset that uses the existing data source.
B. Create a SQL Azure data source and then add a dataset that uses the new data source.
C. Create a SQL Server data source and then add a dataset that uses the new data source.
D. Generate an Atom-compliant data feed for the report.

Answer: B

Question: 122

You manage an environment that has SharePoint Server 2010 and a SQL Server Reporting Services (SSRS) instance in SharePoint integrated mode. Several report subscriptions are configured to deliver reports through email by using a shared schedule.
The email server will be going offline.
You need to temporarily suspend the shared schedule until the email server is brought back online.
What should you do?

A. In SharePoint Central Administration, delete the shared schedule.
B. In Report Manager, pause the shared schedule.
C. In Report Manager, delete the shared schedule.
D. In SharePoint Central Administration, pause the shared schedule.

Answer: D

Question: 123

DRAG DROP
You are developing a SQL Server Reporting Services (SSRS) report to display a list of employees. The report will be embedded into a Microsoft SharePoint Server Web Part Page of the company intranet site.
The report consists of a single table. The design of the table is shown in the following diagram.

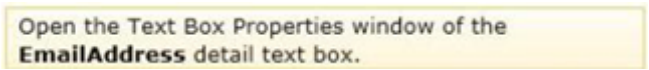
Employee	Email Address
[EmployeeName]	[EmailAddress]

You need to configure the EmailAddress detail text box to create a new email message. The email message must be addressed to the email address that was clicked by the user.

Which four 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.)

Answer:

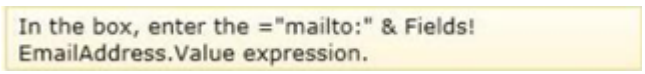
Box 1:



Box 2:

Box 3:

Box 4:



Explanation:

Note:

* Select Action on the Text Box Properties dialog box to enable hyperlink options for the text box.
* Go to URL

Choose this option to define a link to a Web page. Type or select the URL of a Web page or an expression that evaluates to the URL of a Web page. Click the Expression (fx) button to change the expression. This expression can include a field that contains a URL.

Question: 124

DRAG DROP

You manage a SQL Server Reporting Services (SSRS) instance running in native mode.

You are troubleshooting a performance problem and need to know which reports are frequently executed. You discover that the report server execution logs are empty, despite significant report activity.

You need to ensure that the server is configured for report execution logging.

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.)

Answer:

Box 1: Open SharePoint Central Administration.
Box 2: In the Application Management Group, click Manage Service Application.
Box 3: Enable the Enable report execution logging option.
Note:

Explanation:
To enable execution logging:
1. From SharePoint Central Administration, click Manage service applications in the Application Management group.
2. Click the name of the Reporting Services service application you want to configure.
3. Click System Settings.
4. Select Enable Execution Logging in the Logging section.
5. Click OK.

Reference: Report Server Execution Log and the ExecutionLog3 View

Question: 125

You are designing a SQL Server Reporting Services (SSRS) report to display product names and their year-to-date (YTD) sales quantity YTD sales quantity values are classified in three bands: High Sales, Medium Sales, and Low Sales.
You add a table to the report. Then you define two columns based on the fields named ProductName and YTDSalesQuantity.
You need to set the color of the product text to red, yellow, or blue, depending on the value of the YTD sales quantity values.
What should you do?

A. Use an expression for the TextDecoration property of the text box.
B. Use an expression for the Style property of the text box.
C. Add an indicator to the table.
D. Use an expression for the Font property of the text box.
E. Use an expression for the Color property of the text box.

Answer: E

Question: 126

You are managing a SQL Server Reporting Services (SSRS) instance in native mode. A role named Folder Access Controller is present on the server.
The Folder Access Controller role consists of only the Set security for individual items task. When role members open Report Manager, they cannot view folders.
You need to modify the Folder Access Controller role so that the role members can view folders.

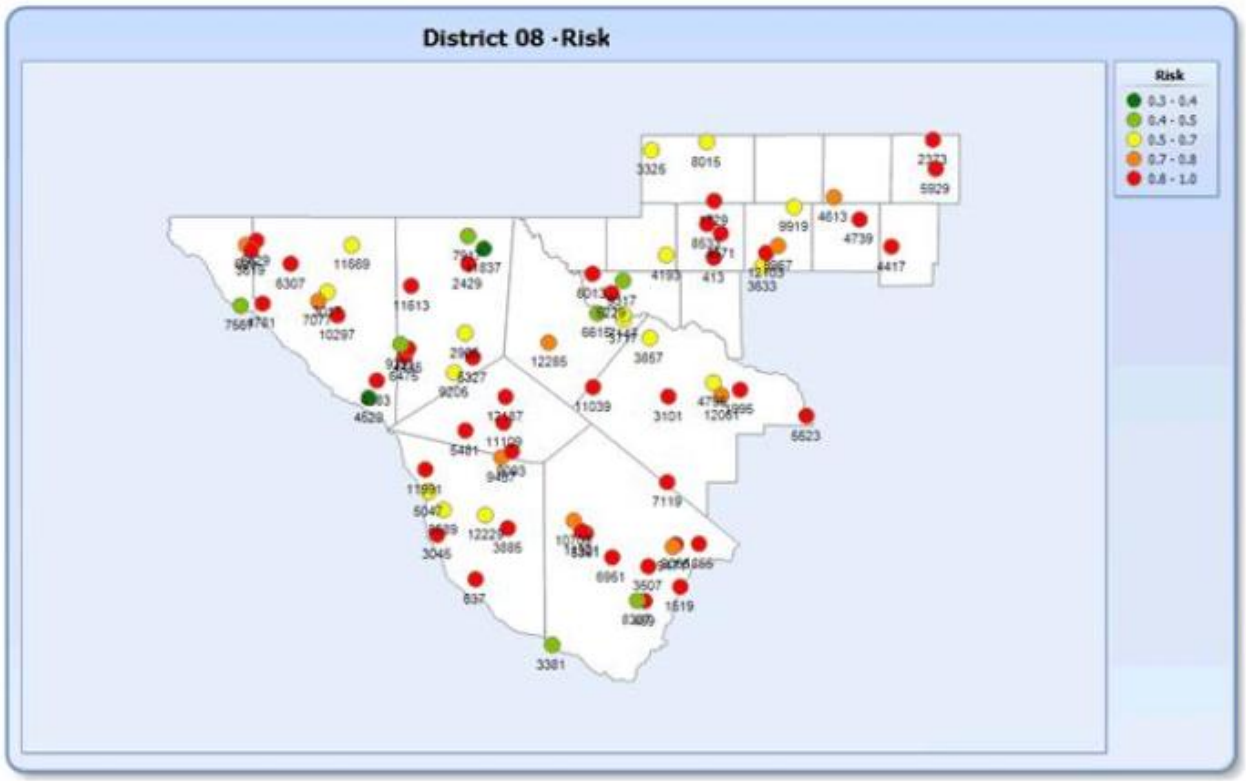
Which task should you add to the Folder Access Controller role?

A. Manage data sources
B. Manage folders
C. View models
D. View reports

Answer: B

Question: 127

You are designing a SQL Server Reporting Services (SSRS) report for a bank. The bank has Automated Teller Machines (ATMs) in several regions. ATM operational data is stored in a SQL Azure database.
The report must use a map to display the location and status of the ATMs as shown in the following exhibit. (Click the Exhibit button.)



You need to ensure that the report displays only a user selected map region.
Which source of spatial data should you use for the map?

A. SQL Server spatial query
B. Bing Maps layer
C. ESRI shape file
D. Map gallery

Answer: A

Question: 128

You are creating a new report in SQL Server Report Builder. You add a SQL Azure data source. Then you add a dataset

that has four fields named Year, Country, Category, and Sales.
You must design a matrix as shown in the following diagram.

	CY 2003	CY 2004
Accessories	293,710	407,050
Bikes	9,359,103	9,162,325
Clothing	138,248	201,525
Australia	3,033,784	2,563,884
Canada	535,784	673,628
France	1,026,325	922,179
Germany	1,058,406	1,076,891
United Kingdom	1,298,249	1,210,286
United States	2,838,512	3,324,031
Total	9,791,060	9,770,900

The category rows (the first three rows as shown in the diagram) must present total sales amount by category. The country rows (the next six rows as shown in the diagram) must present total sales amount by country. The total row must present the total sales for each year.
You add a matrix to the report. You add a grouping of the Category field on the rows and a grouping of the Year field on the columns.
You need to add the countries on the rows of the matrix.
Which Row Group option should you select when you add the group?

A. Adjacent Below
B. Parent Group
C. Adjacent Above
D. Child Group

Answer: A

Question: 129

A multinational retailer has retail locations on several continents. A single SQL Server Reporting Services (SSRS) instance is used for global reporting.
A SQL Server Analysis Services (SSAS) instance for each continent hosts a multidimensional database named RetailSales. Each RetailSales database stores data only for the continent in which it resides. All of the SSAS instances are configured identically. The cube names and objects are identical.
Reports must meet the following requirements:
A report parameter named ServerName must be defined in each report.
When running a report, users must be prompted to select a server instance.
The report data source must use the Microsoft SQL Server Analysis Services data source type.
You need to create a data source to meet the requirements.
How should you define the expression that is assigned to the connection string property of the data source?

A. ="Server=" &Parameters!ServerName.Value& ";Initial Catalog=RevenueData"
B. ="Data Source=" &Parameters!ServerName.Value& ";Initial Catalog=RevenueData"
C. ="Server=" & Parameters!ServerName.Value
D. ="Data Source=@ServerName;Initial Catalog=RevenueData"

E. ="Server=@ServerName;Initial Catalog=RevenueData"

Answer: B

Question: 130

You install SQL Server Reporting Services (SSRS).
You need to restore a copy of the symmetric key.
Which command should you run?

A. rskeymgmt –d
B. rskeymgmt –a –f %temp%\rs.key –p Password1
C. rskeymgmt –e –f %temp%\rs. key –p Password1
D. rskeymgmt –i

Answer: B

Question: 131

You are working with a SQL Server Reporting Services (SSRS) instance in native mode. An item role named Reports Writer is present on the server.
The Reports Writer role cannot view and modify report caching parameters.
You need to ensure that the Reports Writer role can view and modify report caching parameters.
What should you do?

A. Add the Manage individual subscriptions task to the Reports Writer role.
B. Add the Manage report history task to the Reports Writer role.
C. Add the View data sources task to the Reports Writer role.
D. Add the Manage all subscriptions task to the Reports Writer role.

Answer: B

Question: 132

You manage a SQL Server Reporting Services (SSRS) instance. The ReportingServicesService.exe.config file has been modified to enable logging.
Some users report that they cannot access the server.
You need to ascertain the IP addresses of the client computers that are accessing the server.
What should you do?

A. View the Report Server service trace log.
B. View the ExecutionLog view in the Report Server database.
C. View the Report Server HTTP log.
D. View the Windows System event log.

Answer: C

Question: 133

You are developing a SQL Server Reporting Services (SSRS) report. The report includes a dataset with fields named Year, MonthNumber, and RegCount. The report includes a table that displays the number of recorded registration occurrences per year, as shown in the following diagram.

Registrations

Year	Reg Count
1995	646,530
1996	728,000
1997	776,255
1998	839,324
1999	867,536
2000	972,305
2001	1,437,642
2002	1,436,908
2003	1,410,109
2004	1,324,998
2005	1,297,629
2006	1,313,613
2007	1,315,046
2008	1,354,499
2009	1,325,585
2010	1,394,674

You need to modify the table to include a graphical item displaying the monthly registration trend to the right of the Reg Count column.
What should you do?

A. Add an Indicator item to a new column on the right of the Reg Count column. Select the Directional Indicator Type and then assign the MonthNumber field to the Start property.
B. Add a text box to a new column on the right of the Reg Count column. Then use a Go to report action to link to a separate report showing the monthly trend.
C. Add a Sparkline item to a new column on the right of the Reg Count column. Then select the RegCount field for Values and the MonthNumber field for Series Groups.
D. Add a Sparkline item to a new column on the right of the Reg Count column. Then select the RegCount field for Values and the MonthNumber field for Category Groups.
E. Add an Indicator item to a new column on the right of the Reg Count column. Select the Directional Indicator Type and then select the MonthNumber field for Value.

Answer: D

Question: 134

You are designing a SQL Server Reporting Services (SSRS) report that sources data from a SQL Azure database.
The report must display the value and status of a Key Performance Indicator (KPI).
Which report item should you use? (Each answer presents a complete solution. Choose all that apply.)

A. Sparkline
B. Gauge
C. Indicator
D. Data Bar
E. Image

Answer: B, C

Explanation:
B: The Gauge data region is a one-dimensional data region that displays a single value in your dataset. An individual gauge is always positioned inside a gauge panel, where you can add child or adjacent gauges.
You can use gauges to perform many tasks in a report:
Display key performance indicators (KPIs) in a single radial or linear gauge.
Place a gauge inside a table or matrix to illustrate values inside each cell.
Use multiple gauges in a single gauge panel to compare data between fields.
C: Indicators are minimal gauges that convey the state of a single data value at a glance. The icons that represent indicators and their states are simple and visually effective even when used in small sizes.
You can use state indicators in your reports to show the following:
Trends by using trending-up, flat (no change), or trending-down arrows.
State by using commonly recognized symbols such as checkmarks and exclamation marks.
Conditions by using commonly recognized shapes such traffic lights and signs.
Ratings by using common recognized shapes and symbols that show progress such number of quadrants in a square and stars.
Incorrect:
Not A, not D:
Sparklines and data bars are small, simple charts that convey a lot of information in a little space, often inline with text. Sparklines and data bars are often used in tables and matrices. Their impact comes from viewing many of them together and being able to quickly compare them one above the other, rather than viewing them singly. They make it easy to see the outliers, the rows that are not performing like the others. Although they are small, each sparkline often represents multiple data points, often over time. Data bars can represent multiple data points, but typically illustrate only one.

Question: 135

You are developing a SQL Server Analysis Services (SSAS) multidimensional project.
A fact table is related to a dimension table named DimScenario by a column named ScenarioKey.
The dimension table contains three rows for the following scenarios:
Actual
Budget Q1
Budget Q3
You need to create a dimension to allow users to view and compare data by scenario.
What should you do?

A. Use role playing dimensions.
B. Use the Business Intelligence Wizard to define dimension intelligence.
C. Add a measure that uses the Count aggregate function to an existing measure group.
D. Add a measure that uses the DistinctCount aggregate function to an existing measure group.
E. Add a measure that uses the LastNonEmpty aggregate function. Use a regular relationship between the time dimension and the measure group.
F. Add a measure group that has one measure that uses the DistinctCount aggregate function.
G. Add a calculated measure based on an expression that counts members filtered by the Exists and NonEmpty

functions.
H. Add a hidden measure that uses the Sum aggregate function. Add a calculated measure aggregating the measure along the time dimension.
I. Create several dimensions. Add each dimension to the cube.
J. Create a dimension. Then add a cube dimension and link it several times to the measure group.
K. Create a dimension. Create regular relationships between the cube dimension and the measure group. Configure the relationships to use different dimension attributes.
L. Create a dimension with one attribute hierarchy. Set the IsAggregatable property to False and then set the DefaultMember property. Use a regular relationship between the dimension and measure group.
M. Create a dimension with one attribute hierarchy. Set the IsAggregatable property to False and then set the DefaultMember property. Use a many-to-many relationship to link the dimension to the measure group.
N. Create a dimension with one attribute hierarchy. Set the ValueColumn property, set the IsAggregatable property to False, and then set the DefaultMember property. Configure the cube dimension so that it does not have a relationship with the measure group. Add a calculated measure that uses the MemberValue attribute property.
O. Create a new named calculation in the data source view to calculate a rolling sum. Add a measure that uses the Max aggregate function based on the named calculation.

Answer: L

Question: 136

You are designing a SQL Server Analysis Services (SSAS) cube.
You need to create a measure to count unique customers.
What should you do?

A. Use role playing dimensions.
B. Use the Business Intelligence Wizard to define dimension intelligence.
C. Add a measure that uses the Count aggregate function to an existing measure group.
D. Add a measure that uses the DistinctCount aggregate function to an existing measure group.
E. Add a measure that uses the LastNonEmpty aggregate function. Use a regular relationship between the time dimension and the measure group.
F. Add a measure group that has one measure that uses the DistinctCount aggregate function.
G. Add a calculated measure based on an expression that counts members filtered by the Exists and NonEmpty functions.
H. Add a hidden measure that uses the Sum aggregate function. Add a calculated measure aggregating the measure along the time dimension.
I. Create several dimensions. Add each dimension to the cube.
J. Create a dimension. Then add a cube dimension and link it several times to the measure group.
K. Create a dimension. Create regular relationships between the cube dimension and the measure group. Configure the relationships to use different dimension attributes.
L. Create a dimension with one attribute hierarchy. Set the IsAggregatable prooerty to False and then set the DefaultMember property. Use a regular relationship between the dimension and measure group.
M. Create a dimension with one attribute hierarchy. Set the IsAggregatable property to False and then set the DefaultMember property. Use a many-to-many relationship to link the dimension to the measure group.
N. Create a dimension with one attribute hierarchy. Set the ValueColumn property, set the IsAggregatable property to False, and then set the DefaultMember property. Configure the cube dimension so that it does not have a relationship with the measure group. Add a calculated measure that uses the MemberValue attribute property.
O. Create a new named calculation in the data source view to calculate a rolling sum. Add a measure that uses the Max aggregate function based on the named calculation.

Answer: F

Question: 137

You are developing a SQL Server Analysis Services (SSAS) cube.
The data warehouse has a table named FactStock that is used to track movements of stock. A column named MovementQuantity contains quantities of stock. A positive quantity is used for input and negative quantity is used for output. A column named MovementDate is related to the time dimension. The quantity in stock, at a given point in time, can be evaluated as the sum of all MovementQuantity values at that point in time.
You need to create a measure that calculates the quantity in stock value.
What should you do?

A. Use role playing dimensions.
B. Use the Business Intelligence Wizard to define dimension intelligence.
C. Add a measure that uses the Count aggregate function to an existing measure group.
D. Add a measure that uses the DistinctCount aggregate function to an existing measure group.
E. Add a measure that uses the LastNonEmpty aggregate function. Use a regular relationship between the time dimension and the measure group.
F. Add a measure group that has one measure that uses the DistinctCount aggregate function.
G. Add a calculated measure based on an expression that counts members filtered by the Exists and NonEmpty functions.
H. Add a hidden measure that uses the Sum aggregate function. Add a calculated measure aggregating the measure along the time dimension.
I. Create several dimensions. Add each dimension to the cube.
J. Create a dimension. Then add a cube dimension and link it several times to the measure group.
K. Create a dimension. Create regular relationships between the cube dimension and the measure group. Configure the relationships to use different dimension attributes.
L. Create a dimension with one attribute hierarchy. Set the IsAggregatable property to False and then set the DefaultMember property. Use a regular relationship between the dimension and measure group.
M. Create a dimension with one attribute hierarchy. Set the IsAggregatable property to False and then set the DefaultMember property. Use a many-to-many relationship to link the dimension to the measure group.
N. Create a dimension with one attribute hierarchy. Set the ValueColumn property, set the IsAggregatable property to False, and then set the DefaultMember property. Configure the cube dimension so that it does not have a relationship with the measure group. Add a calculated measure that uses the MemberValue attribute property.
O. Create a new named calculation in the data source view to calculate a rolling sum. Add a measure that uses the Max aggregate function based on the named calculation.

Answer: H

Question: 138

You are creating a SQL Server Analysis Services (SSAS) cube.
You need to create a time dimension. It must be linked to a measure group named Sales at the day granularity level. It must also be linked to a measure group named Salary at the month granularity level.
What should you do?

A. Use role playing dimensions.
B. Use the Business Intelligence Wizard to define dimension intelligence.
C. Add a measure that uses the Count aggregate function to an existing measure group.
D. Add a measure that uses the DistinctCount aggregate function to an existing measure group.

E. Add a measure that uses the LastNonEmpty aggregate function. Use a regular relationship between the time dimension and the measure group.
F. Add a measure group that has one measure that uses the DistinctCount aggregate function.
G. Add a calculated measure based on an expression that counts members filtered by the Exists and NonEmpty functions.
H. Add a hidden measure that uses the Sum aggregate function. Add a calculated measure aggregating the measure along the time dimension.
I. Create several dimensions. Add each dimension to the cube.
J. Create a dimension. Then add a cube dimension and link it several times to the measure group.
K. Create a dimension. Create regular relationships between the cube dimension and the measure group. Configure the relationships to use different dimension attributes.
L. Create a dimension with one attribute hierarchy. Set the IsAggregatable property to False and then set the DefaultMember property. Use a regular relationship between the dimension and measure group.
M. Create a dimension with one attribute hierarchy. Set the IsAggregatable property to False and then set the DefaultMember property. Use a many-to-many relationship to link the dimension to the measure group.
N. Create a dimension with one attribute hierarchy. Set the ValueColumn property, set the IsAggregatable property to False, and then set the DefaultMember property. Configure the cube dimension so that it does not have a relationship with the measure group. Add a calculated measure that uses the MemberValue attribute property.
O. Create a new named calculation in the data source view to calculate a rolling sum. Add a measure that uses the Max aggregate function based on the named calculation.

Answer: K

Question: 139

You are developing a SQL Server Analysis Services (SSAS) tabular project for a Power View solution.
You need to grant permission for salespersons to view only the data based on their sales territory.
What should you do?

A. Use SQL Server Management Studio to create a role. Then create a Data Analysis Expressions (DAX) filter.
B. Create a member and then create a Data Analysis Expressions (DAX) filter.
C. Create a member and then create a Multidimensional Expressions (MDX) filter.
D. Use SQL Server Management Studio to create a role. Then create a Multidimensional Expressions (MDX) filter.

Answer: A

Question: 140

You are developing a SQL Server Analysis Services (SSAS) tabular project.
A model contains tables and columns that must not be visible to the user. The columns and tables cannot be removed because they are used in calculations.
The calculations are used to calculate the budget and forecast for the current quarter.
You need to hide the tables and columns.
What should you do?

A. After adding the budget calculations to the model, in the Properties window for the applicable tables and columns, set the Enabled property to False.
B. Before adding the forecast calculations to the model, right-click the applicable tables and columns and select the Hide option.
C. Before adding the forecast calculations to the model, right-click the applicable tables and columns and select the

Hide from Client Tools option.
D. After adding the budget calculations to the model, in the Properties window for the applicable tables and columns, set the Visible property to True.

Answer: C

Question: 141

You are developing a SQL Server Analysis Services (SSAS) tabular project that will be used by the finance, sales, and marketing teams.
The sales team reports that the model is too complex and difficult to use. The sales team does not need any information other than sales related resources in the tabular model. The finance and marketing teams need to see all the resources in the tabular model.
You need to implement a solution that meets the needs of the sales team while minimizing development and administrative effort.
What should you do?

A. Create a separate partition for each team.
B. Create a perspective for the sales team.
C. Create a separate data source for each team.
D. Enable client side security to filter non-sales data.

Answer: B

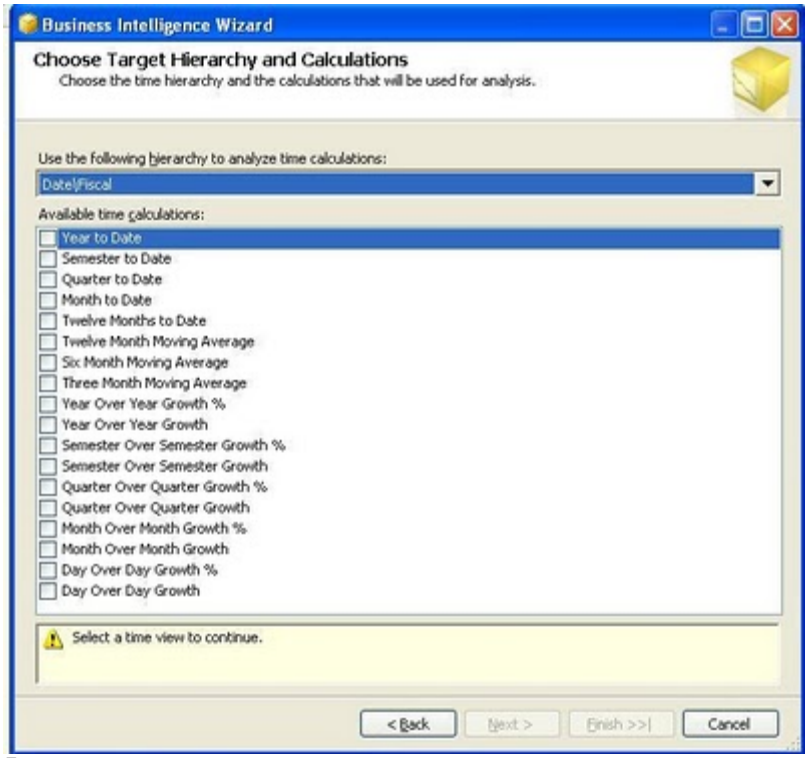
Question: 142

You are developing a SQL Server Analysis Services (SSAS) tabular project. A model defines a measure named Profit and includes a table named Date. The table includes year, semester, quarter, month, and date columns. The Date column is of data type Date. The table contains a set of contiguous dates.
You need to create a measure to report on year-over-year growth of profit.
What should you do? (Each answer presents a complete solution. Choose all that apply.)

A. Use the Business Intelligence Wizard and then use the Define time intelligence enhancement.
B. Define the following calculation.Year Over Year Profit Growth:=CALCULATE([Profit], DATEADD('Date'[Date], 1, YEAR))
C. Define the following calculation.Year Over Year Profit Growth:=[Profit] - CALCULATE([Profit], SAMEPERIODLASTYEAR('Date'[Date]))
D. Define the following calculation.Year Over Year Profit Growth:=[Profit] - CALCULATE([Profit], PARALLELPERIOD('Date'[Date], -12, MONTH))

Answer: A, D

Explanation:
A: SSAS Provides feature called "Time Intelligence Wizard". This feature will provide neat GUI to achieve the same purpose which we were trying by MDX code [using the PARALLELPERIOD function].
Example:
Lets explore the "Time Intelligence Wizard":
1) In BIDS, Click "Cube" in menu bar and select "Add business Intelligence"
2) Click "Time Intelligence Wizard" on next screen.
3) "Choose Target Hierarchy and Calculations" screen



Etc.

D: Variance analysis for SSAS OLAP cubes is not a simple matter of adding a calculated field to a pivot table. Planning along with the use of the ParallelPeriod MDX functions allows us to quickly create a variance infrastructure for a particular measure. Furthermore, by utilizing a date hierarchy in the Parallel Period function, we can easily traverse down the hierarchy for any attribute below the parallel period level noted in the function (i.e., parallel period based on Year can show either one year back per year, quarter, or month). Although, other methods exist, the parallel period method can be easily followed and applied to various measures.

Question: 143

You are developing a SQL Server Analysis Services (SSAS) tabular project.
You need to grant the minimum permissions necessary to enable users to query data in a tabular model.
Which role permission should you use?

A. Browser
B. ReadDefinition
C. Read
D. Process
E. Explorer
F. Select

Answer: C

Question: 144

You are developing a SQL Server Analysis Services (SSAS) tabular project.
A column named City must be added to the table named Customer. The column will be used in the definition of a hierarchy. The City column exists in the Geography table that is related to the Customer table.
You need to add the City column to the Customer table.

How should you write the calculation?

A. City:= LOOKUPVALUE(Geography[City],Geography[GeographyKey],[GeographyKey])
B. =RELATED(Geography[City])
C. City:=VALUES(Geography[City])
D. =VALUES(Geography[City])
E. City:=LOCKUP(Geography[City],Geography[GeographyKey],[GeographyKey])
F. =RELATED(Geography.City)

Answer: B

Question: 145

You are developing a SQL Server Analysis Services (SSAS) tabular database.
To maximize performance, the queries must be resolved by using cache unless otherwise specified in the connection string.
You need to configure the appropriate query mode.
Which query mode should you select?

A. In-Memory with DirectQuery
B. DirectQuery with In-Memory
C. DirectQuery
D. In-Memory

Answer: A

Question: 146

You are developing a SQL Server Analysis Services (SSAS) tabular project. The model has tables named Invoice Line Items and Products.
The Invoice Line Items table has the following columns:
Product Id
Unit Sales Price
The Unit Sales Price column stores the unit price of the product sold. The Products table has the following columns:
Product Id
Minimum Sales Price
The Minimum Sales Price column is available only in the Products table.
You add a column named Is Undersell to the Invoice Line Items table. The Is Undersell column must store a value of TRUE if the value of the Unit Sales Price is less than the value of the Minimum Sales Price. Otherwise, a value of FALSE must be stored.
You need to define the Data Analysis Expressions (DAX) expression for the Is Undersell column.
Which DAX formula should you use? (Each answer represents a complete solution. Choose all that apply.)

A. =IF([Unit Sales Price] < RELATED(Products[Minimum Sales Price]), TRUE, FALSE)
B. =IF(RELATED(Products[Unit Sales Price]) < [Minimum Sales Price], TRUE, FALSE)
C. =IF([Unit Sales Price] < LOOKUPVALUE(Products[Minimum Sales Price], Products[Product Id], [Product Id]), TRUE, FALSE)
D. =IF(LOOKUPVALUE(Products[Unit Sales Price], Products[Product Id], [Product Id]) < [Minimum Sales Price]), TRUE, FALSE)

Answer: A, C

Explanation:
A: RELATED Function
Returns a related value from another table.
* The RELATED function requires that a relationship exists between the current table and the table with related information. You specify the column that contains the data that you want, and the function follows an existing many-to-one relationship to fetch the value from the specified column in the related table.
C:
The lookupvalue function returns the value in result_columnName for the row that meets all criteria specified by search_columnName and search_value.
Syntax:
LOOKUPVALUE(<result_columnName>, <search_columnName>, <search_value>[, <search_columnName>, <search_value>]…)
Note:
The syntax of DAX formulas is very similar to that of Excel formulas, and uses a combination of functions, operators, and values.

Question: 147

You are developing a SQL Server Analysis Services (SSAS) tabular project. The model includes a table named Sales. The Sales table includes a single date column.
The Sales table must meet the following requirements:
Queries must be able to return all rows.
Must be able to support four different processing schedules for different date ranges.
Date ranges must not include any overlapping data.
You need to implement a solution that meets the requirements.
What should you do?

A. Create four partitions for the Sales table. Use row filter queries for each partition.
B. Convert the Sales table into four smaller tables by using row filter queries. Use one perspective for all four tables.
C. Create four partitions for the Sales table. Create four roles. Use the same row filter queries for each role and partition.
D. Convert the Sales table into four smaller tables by using row filter queries. Use one perspective for each of the four tables.

Answer: A

Question: 148

DRAG DROP
You have a single SQL Server 2008 R2 Analysis Services (SSAS) instance. You are planning to upgrade the instance to SQL Server 2012.
You need to import an existing PowerPivot workbook to create a tabular project.
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.)

Install SQL Server PowerPivot Add-in for SharePoint.

Install an instance of SQL Server 2012 Analysis Services in Multidimensional and Data Mining mode.

Use the **Import from Server (Tabular)** template as the project type.

Use the **Import from PowerPivot** template as the project type.

Open SQL Server Data Tools and create a new project.

Install an instance of SQL Server 2012 Analysis Services in Tabular mode.

Open SQL Server Business Intelligence Development Studio (BIDS) and create a new project.

Answer:

Box 1:

Install an instance of SQL Server 2012 Analysis Services in Tabular mode.

Box 2:

Open SQL Server Data Tools and create a new project.

Box 3:

Use the **Import from PowerPivot** template as the project type.

Explanation:

Note:

* To create a new tabular model project from a PowerPivot for Excel file

1. In SQL Server Data Tools, on the File menu, click New, and then click Project.

(box 2)

2. In the New Project dialog box, under Installed Templates, click Business Intelligence, and then click Import from PowerPivot.

(box 3)

3. In Name, type a name for the project, then specify a location and solution name, and then click OK.

4. In the Open dialog box, select the PowerPivot for Excel file that contains the model metadata and data you want to import, and then click Open.

Box 1:

* When creating a new tabular model project by importing from a PowerPivot workbook, the metadata that defines the structure of the workbook is used to create and define the structure of the tabular model project in SQL Server Data Tools. Objects such as tables, columns, measures, and relationships are retained and will appear in the tabular model project as they are in the PowerPivot workbook.

* Analysis Services provides three different approaches for creating a business intelligence semantic model: tabular, multidimensional, and PowerPivot. Tabular solutions use relational modeling constructs such as tables and relationships for modeling data, and the xVelocity in-memory analytics engine for storing and calculating data

Reference: Import from PowerPivot (SSAS Tabular)

Question: 149

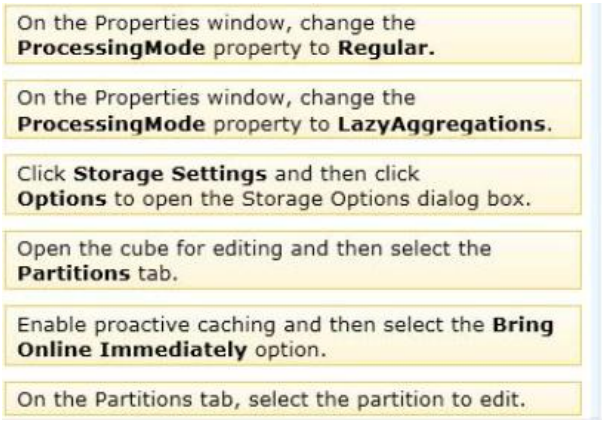
DRAG DROP

You are developing a SQL Server Analysis Services (SSAS) multidimensional project that is configured to source data from a SQL Azure database.

The largest partition in the cube takes an unacceptably long time to process. The partition must be available for querying as soon as possible after processing commences.

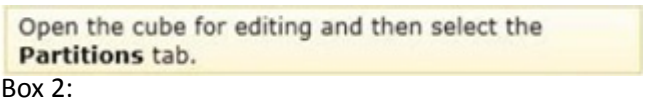
You need to ensure that the partition is available for querying as soon as possible, without using source data to satisfy

the query.
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.)

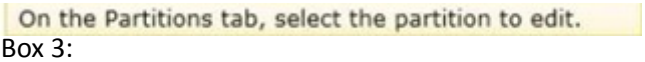


Answer:

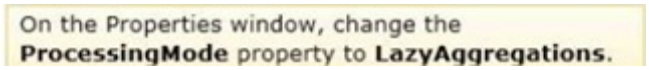
Box 1:



Box 2:



Box 3:



Explanation:
Note:
* Processing mode has two possible options.
Regular. This is the default setting. When set to regular, partitions will be available to users after data has been loaded and aggregations are created completely.
Lazy Aggregations. When set to lazy aggregations, partitions will be available to user queries immediately after data has been loaded. Aggregations will be created as a separate background process while users start to query the partition.
* Lazy processing performs the task of building indexes and aggregations for dimensions and measure group partitions at a lower priority to reduce foreground processing time and to allow users to query the cube sooner. For lazy processing to occur, you must switch the ProcessingMode = LazyAggregations of your measure group partitions; by default this value is Regular (lazy processing is turned off). When processing a dimension with flexible aggregations such as parent-child or virtual dimension by using the processing enumeration of ProcessUpdate (such as to take into account of member name or hierarchy changes), lazy processing is initiated to ensure that the aggregations are rebuilt on the associated measure group partitions.
* Configure Lazy Processing for the cube, measure group, or partition. If you configure Lazy Processing, the dropped aggregations are recalculated as a background task. While the flexible aggregations are being recalculated, users can continue to query the cube (without the benefit of the flexible aggregations). While the flexible aggregations are being recalculated, queries that would benefit from the flexible aggregations run slower because Analysis Services resolves these queries by scanning the fact data and then summarizing the data at query time. As the flexible aggregations are recalculated, they become available incrementally on a partition-by-partition basis. For a given cube, Lazy Processing is not enabled by default. You can configure it for a cube, measure group, or partition by changing the ProcessingMode property from Regular to LazyAggregations. To manage Lazy Processing, there are a series of server properties such as the LazyProcessing \ MaxObjectsInParallel setting, which controls the number of objects that can be lazy processed at a given time. By default it is set to 2. By increasing this number, you increase the number of objects processed in parallel; however, this also impacts query performance and should therefore be handled with care.

* Incorrect: With Bring Online Immediately enabled, during cache refresh all queries are directed to the relational source database to retrieve the latest data for end users. While this provides users with refreshed data, it can also result in reduced query performance given that Analysis Services needs to redirect queries to the relational source database.

Question: 150

You are deploying an update to a SQL Server Analysis Services (SSAS) cube to a production environment.
The production database has been configured with security roles.
You need to preserve the existing security roles in the production database. Database roles and their user accounts from the development environment must not be deployed to the production server.
Which deployment method should you use?

A. Use the SQL Server Analysis Services Deployment Wizard.
B. Backup and restore the database.
C. Deploy the project from SQL Server Data Tools to the production server.
D. Use the SQL Server Analysis Services Migration Wizard.

Answer: A

Question: 151

DRAG DROP
You are developing a SQL Server Analysis Services (SSAS) multidimensional project that is configured to source data from a SQL Azure database. The cube is processed each night at midnight.
The largest partition in the cube takes 12 hours to process, and users are unable to access the cube until noon. The partition must be available for querying as soon as possible after processing commences.
You need to ensure that the partition is available for querying as soon as possible, without using source data to satisfy the query.
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.)

- Open the cube for editing and then select the **Partitions** tab.
- On the Partitions tab, select the partition to edit.
- Enable proactive caching and then select the **Bring Online Immediately** option.
- Click **Storage Settings** and then click **Options** to open the Storage Options dialog box.
- On the Properties window, change the **ProcessingMode** property to **LazyAggregations**.
- On the Properties window, change the **ProcessingMode** property to **(default)**.

Answer:

Box 1:

Open the cube for editing and then select the **Partitions** tab.

Box 2:

On the Partitions tab, select the partition to edit.

Box 3:

On the Properties window, change the **ProcessingMode** property to **LazyAggregations**.

Explanation:
Note:
* Processing mode has two possible options.
Regular. This is the default setting. When set to regular, partitions will be available to users after data has been loaded and aggregations are created completely.
Lazy Aggregations. When set to lazy aggregations, partitions will be available to user queries immediately after data has been loaded. Aggregations will be created as a separate background process while users start to query the partition.
* Lazy processing performs the task of building indexes and aggregations for dimensions and measure group partitions at a lower priority to reduce foreground processing time and to allow users to query the cube sooner. For lazy processing to occur, you must switch the ProcessingMode = LazyAggregations of your measure group partitions; by default this value is Regular (lazy processing is turned off). When processing a dimension with flexible aggregations such as parent-child or virtual dimension by using the processing enumeration of ProcessUpdate (such as to take into account of member name or hierarchy changes), lazy processing is initiated to ensure that the aggregations are rebuilt on the associated measure group partitions.
* Configure Lazy Processing for the cube, measure group, or partition. If you configure Lazy Processing, the dropped aggregations are recalculated as a background task. While the flexible aggregations are being recalculated, users can continue to query the cube (without the benefit of the flexible aggregations). While the flexible aggregations are being recalculated, queries that would benefit from the flexible aggregations run slower because Analysis Services resolves these queries by scanning the fact data and then summarizing the data at query time. As the flexible aggregations are recalculated, they become available incrementally on a partition-by-partition basis. For a given cube, Lazy Processing is not enabled by default. You can configure it for a cube, measure group, or partition by changing the ProcessingMode property from Regular to LazyAggregations. To manage Lazy Processing, there are a series of server properties such as the LazyProcessing \ MaxObjectsInParallel setting, which controls the number of objects that can be lazy processed at a given time. By default it is set to 2. By increasing this number, you increase the number of objects processed in parallel; however, this also impacts query performance and should therefore be handled with care.
* Incorrect: With Bring Online Immediately enabled, during cache refresh all queries are directed to the relational source database to retrieve the latest data for end users. While this provides users with refreshed data, it can also result in reduced query performance given that Analysis Services needs to redirect queries to the relational source database.

Question: 152

DRAG DROP
You are planning the installation of PowerPivot for SharePoint that will be used by your company's sales and marketing team.
You install SharePoint Server 2010 Enterprise Edition with Service Pack 1.
You need to install the PowerPivot for SharePoint instance. Then you need to configure the Default Account username used to provision shared services in the SharePoint farm.
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.)

For the project type, use the **Import from PowerPivot** template.

Run the PowerPivot Configuration Tool.

Create a new project by using SQL Server Data Tools.

Enter the Default Account username and password.

Open the Services management console and edit the PowerPivot System Service properties. Change the username and password.

Install SQL Server PowerPivot Add-in for SharePoint.

Answer:

Box 1:

Install SQL Server PowerPivot Add-in for SharePoint.

Box 2:

Open the Services management console and edit the PowerPivot System Service properties. Change the username and password.

Box 3:

Enter the Default Account username and password.

Explanation:
Note:
* (Box 1) PowerPivot Add-in for SharePoint
PowerPivot for SharePoint is a collection of middle-tier and backend services that provide PowerPivot data access in a SharePoint 2013 farm. The PowerPivot for SharePoint add-in (spPowerpivot.msi) is an installer package used to install the middle-tier components.
* (Box 2, Box 3) Update an expired password for SQL Server Analysis Services (PowerPivot) instance
Point to Start, click Administrative Tools, and then click Services. Double-click SQL Server Analysis Services (PowerPivot). Click Log On, and then enter the new password for the account.
In Central Administration, in the Security section, click Configure managed accounts.
Click Edit to change a specific account.
Select Change password now.
Select Set account password to new value. All services that run under the managed account will use the updated credentials.
Reference: Change Service Accounts and Passwords (PowerPivot for SharePoint)

Question: 153

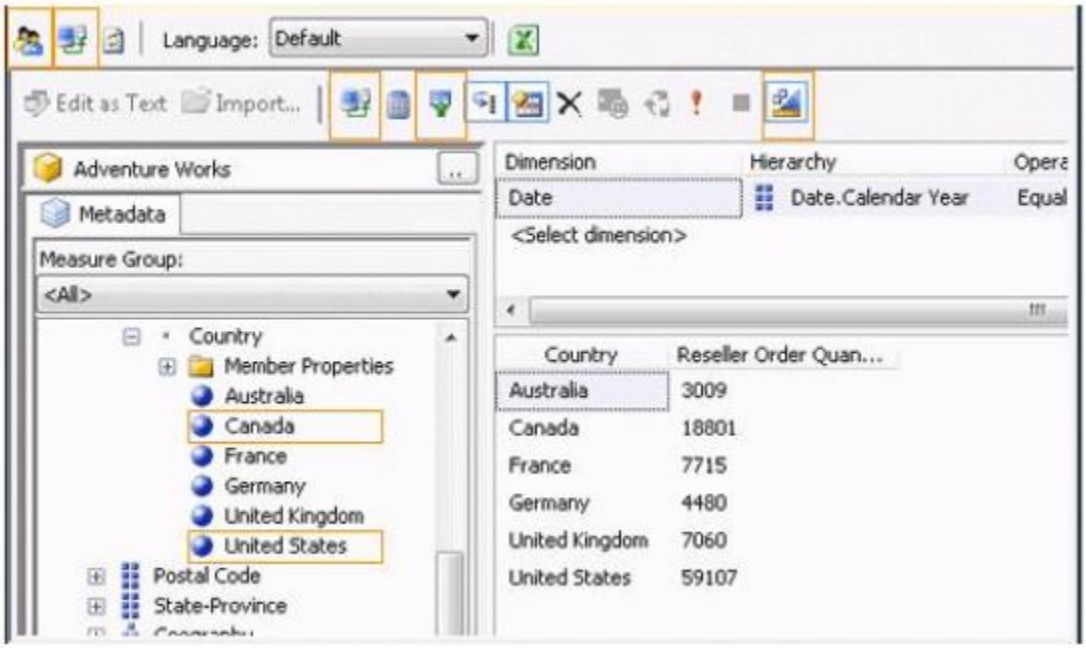
You are modifying a SQL Server Analysis Services (SSAS) multidimensional database.
You have identified a dimension that is no longer used by any cubes.
You need to delete the dimension.
What should you do?

A. Write a T-SQL command to drop the dimension from the database.
B. Script the deletion of the dimension as an XMLA command for execution against the production model.
C. Use the SQL Server Analysis Services Migration Wizard.
D. Deploy the project from the development environment by using SQL Server Management Studio.

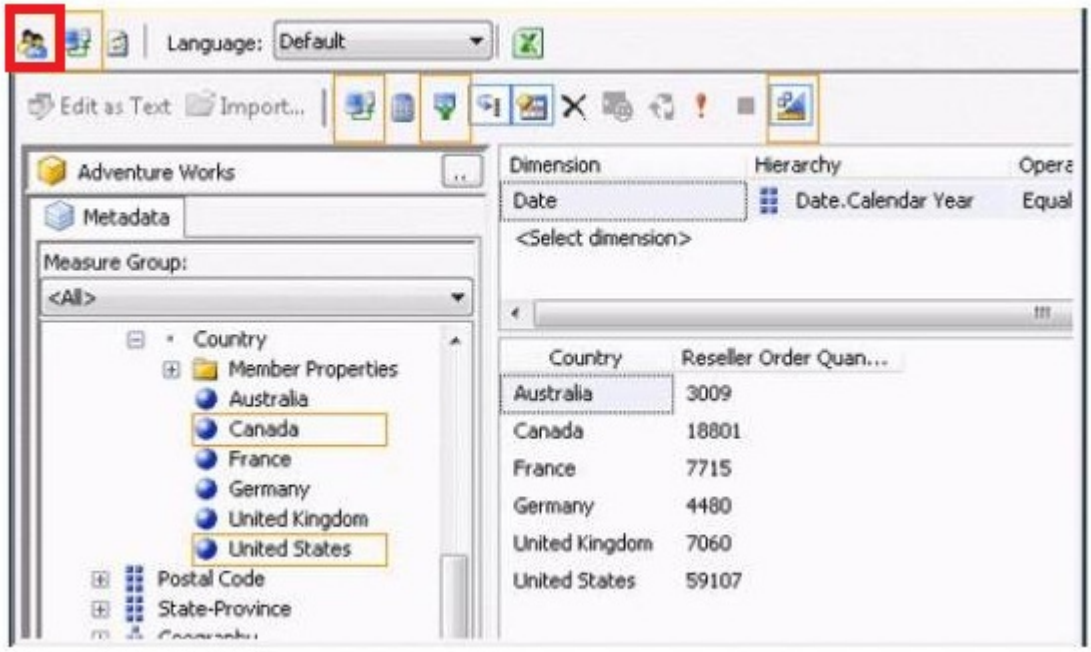
Answer: B

Question: 154

HOTSPOT
A SQL Server Analysis Services (SSAS) cube has roles to define dimension data security. A role named USA allows users to browse data pertaining to the United States. A role named Canada allows users to browse data pertaining to Canada.
A user can browse sales data pertaining to the United States but cannot browse sales data pertaining to Canada. You validate that the user belongs to the USA and Canada roles.
You need to reproduce the issue in SQL Server Management Studio (SSMS).
Which option should you select? To answer, select the appropriate action in the answer area.



Answer:



Question: 155

DRAG DROP
You install a SQL Server Analysis Services (SSAS) instance in tabular mode on a server.
While processing a very large tabular model, you receive an out-of-memory error. You identify that the amount of physical memory in the server is insufficient. Additional physical memory cannot be installed in the server.
You need to configure the server to allow paging to disk by using the operating system page file (pagefile.sys).
Which four 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.)

- Change the value of the **Memory VertiPaqPagingPolicy** configuration option to **1**.
- Change the value of the **OLAP Process AllowDiskPaging** configuration option to **1**.
- Change the value of the **Memory VertiPaqPagingPolicy** configuration option to **2**.
- Restart the Analysis Services instance.
- In Object Explorer, right-click the Analysis Services instance and then click **Properties**.
- Change the value of the **Memory VertiPaqMemoryLimit** configuration option to **0**.
- Select the **Show Advanced (All) Properties** checkbox.

Answer:

Box 1:
In Object Explorer, right-click the Analysis Services instance and then click **Properties**.
Box 2:
Select the **Show Advanced (All) Properties** checkbox.
Box 3:
Change the value of the **Memory VertiPaqPagingPolicy** configuration option to **1**.
Box 4:
Restart the Analysis Services instance.

Explanation:
Note:
* View or set configuration properties in Management Studio
In SQL Server Management Studio, connect to an Analysis Services instance.
In Object Explorer, right-click the Analysis Services instance, and then click Properties. The General page appears, displaying the more commonly used properties.
To view additional properties, click the Show Advanced (All) Properties checkbox at the bottom of the page.
Modifying server properties is supported only for tabular mode and multidimensional mode servers. If you installed PowerPivot for SharePoint, always use the default values unless you are directed otherwise by a Microsoft product support engineer.
* VertiPaqPagingPolicy
Specifies the paging behavior in the event the server runs low on memory. Valid values are as follows:
Zero (0) is the default. No paging is allowed. If memory is insufficient, processing fails with an out-of-memory error.
1 enables paging to disk using the operating system page file (pagefile.sys).
When VertiPaqPagingPolicy is set to 1, processing is less likely to fail due to memory constraints because the server will try to page to disk using the method that you specified. Setting the VertiPaqPagingPolicy property does not

guarantee that memory errors will never happen. Out of memory errors can still occur under the following conditions: There is not enough memory for all dictionaries. During processing, Analysis Services locks the dictionaries for each column in memory, and all of these together cannot be more than the value specified for VertiPaqMemoryLimit.
There is insufficient virtual address space to accommodate the process.
To resolve persistent out of memory errors, you can either try to redesign the model to reduce the amount of data that needs processing, or you can add more physical memory to the computer.
Applies to tabular server mode only.
* Incorrect: VertiPaqMemoryLimit
If paging to disk is allowed, this property specifies the level of memory consumption (as a percentage of total memory) at which paging starts. The default is 60. If memory consumption is less than 60 percent, the server will not page to disk.
This property depends on the VertiPaqPagingPolicyProperty, which must be set to 1 in order for paging to occur.
Applies to tabular server mode only.
Reference: Memory Properties; Configure Server Properties in Analysis Services

Question: 156

A production SQL Server Analysis Services (SSAS) cube is processed daily. The users query facts by using a hierarchy named Geography from a dimension named Geography.
The DimGeography table in the data source view is used as the source of the Geography dimension. The table has the following structure.

```
CREATE TABLE [dbo].[DimGeography](
    [DimensionKey] [int] IDENTITY(1,1) NOT NULL,
    [CityKey] [int] NOT NULL,
    [CityName] [varchar](50) NOT NULL,
    [StateProvinceKey] [int] NOT NULL,
    [StateProvinceName] [varchar](50) NOT NULL,
    [CountryKey] [int] NOT NULL,
    [CountryName] [varchar](50) NOT NULL
) ON [PRIMARY]
```

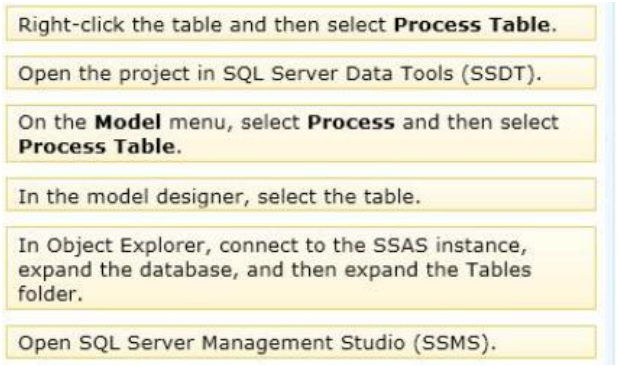
The Geography dimension has three attribute hierarchies:
City
State-Province
Country
The attributes have the following relationships defined: City > State-Province > Country. Each attribute has a key and a name sourced from the related key and name columns in the DimGeography table.
During processing, you receive the following error message: "Errors in the OLAP storage engine: A duplicate attribute key has been found when processing: Table: 'dbo_DimGeography', Column: 'StateProvinceKey', Value: '23'. The attribute is 'State-Province'."
You verify that the data is accurate.
You need to ensure that the dimension Processes successfully.
What should you do?

A. Delete the Geography hierarchy.
B. Relate the State-Province and Country attributes directly to the City attribute.
C. Remove the duplicate data from the DimGeography table.
D. Remove the State-Province attribute.

Answer: B

Question: 157

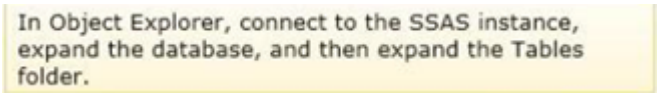
DRAG DROP
You are developing a SQL Server Analysis Services (SSAS) tabular project based on a SQL Azure database. The ProcessingOption property for the project is set to Do Not Process.
Several calculated columns have been added to a table. The project has been deployed to the production server.
You need to ensure that newly added data is processed on the production server.
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.)



Answer:

Box 1:

Box 2:



Box 3:

Explanation:
Note:
* To process a table
In SQL Server Management Studio, in the tabular model database which contains the table you want to process, expand the Tables node, then right-click on the table you want to process, and then click Process Table.
In the Process Table dialog box, in the Mode listbox, select one of the following process modes:
Etc-
Reference: Process Database, Table, or Partition

Question: 158

You are developing a BI Semantic Model (BISM) based on a simple and small dataset sourced from SQL Server. The data size and complexity of the data relationships will not change. The model will be used to produce reports in Power View. The reports will show the relationship between product sales and rainfall over time.
You need to use an appropriate project type.
Which project types should you use? (Each answer presents a complete solution. Choose all that apply.)

A. a tabular project that uses the DirectQuery query mode
B. a tabular project that uses the In-Memory query mode
C. a multidimensional project that uses the ROLAP storage mode and columnstore indexes
D. a multidimensional project that uses the MOLAP storage mode and proactive cache
E. a PowerPivot workbook that is deployed to Microsoft SharePoint Server 2010

Answer: A, B, E

Explanation:
Power View is a thin web client that launches right in the browser from a data model in SharePoint Server 2010. The model can be a PowerPivot model workbook or a tabular model running on a SQL Server 2012 Analysis Services (SSAS) server.

Question: 159

You are modifying a SQL Server Analysis Services (SSAS) cube.
Users of the cube report that the precision for the TransactionCost measure is five digits.
You need to ensure that the TransactionCost measure stores values to two digits of precision.
What should you do?

A. Add a named calculation in the data source view that casts the data source column to two digits of precision. Bind the TransactionCost measure to the new column.
B. Add a named query in the data source view that casts the data source column to two digits of precision. Bind the TransactionCost measure to the new query.
C. Use the FormatString measure property to format TransactionCost as #,##0.00;-#,##0.00.
D. Use the FormatString measure property to format TransactionCost as Currency.
E. Use the MeasureExpression measure property to change the precision of TransactionCost to two digits.

Answer: A

Question: 160

HOTSPOT
You are developing a SQL Server Analysis Services (SSAS) cube.
Revenue must be compared to a goal and described by a status and a trend. Revenue, goal, status, and trend will be defined by Multidimensional Expressions (MDX) expressions.
You need to add the Revenue indicator.
Which tab should you select? (To answer, select the appropriate tab in the work area.)

Answer:

Question: 161

DRAG DROP
You are developing a SQL Server Analysis Services (SSAS) cube.
You need to reuse a measure group from a different database.
In SQL Server Data Tools (SSDT), 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.)

From the **Select a Data Source** step, reference the Analysis Services data source.

From the **Select Objects** step, select the measure group and the dimensions that you need to link.

Launch the Linked Object Wizard.

Launch the Business Intelligence Wizard.

From the **Select Objects** step, select only the measure group that you need to link.

Answer:

Box 1:

Launch the Linked Object Wizard.

Box 2:

From the **Select a Data Source** step, reference the Analysis Services data source.

Box 3:

From the **Select Objects** step, select only the measure group that you need to link.

Explanation:
Note:
* You can use the Linked Object Wizard to either link to or import cubes, dimensions, measure groups, calculations, and Key Performance Indicators (KPIs). You can link to or import these items from another database on the same server or from a database on a remote server
* On the Select a Data Source page of the Linked Object Wizard, choose the Analysis Services data source or create a new one.
* On the Select Objects page of the wizard, choose the dimensions you want to link to in the remote database. You cannot link to linked dimensions in the remote database.
* Incorrect:
The Business Intelligence Wizard can guide you through some or all the following steps:
Define time intelligence for cubes.
Define account intelligence for cubes and dimensions.
Define dimension intelligence for cubes and dimensions.
Define unary operators for cubes.
Set custom member formulas for cubes and dimensions.
Specify attribute ordering for dimensions.
Enable dimension writeback for dimensions.
Define semi-additive behavior for cubes.
Define currency conversion for cubes.
Reference: Using Linked Objects in a Cube

Question: 162

You are developing a BI Semantic Model (BISM) that retrieves data from several sources. These sources include a SQL Azure database and an OData data feed that includes rainfall data for towns on the east coast of Australia. The model will be deployed to a server with significantly more memory than the total size of the source data.
You have the data feed URL, which you will use when developing the model in SQL Server Data Tools (SSDT). The model must meet the following requirements:
Performance must be maximized.
Data latency of up to one month is acceptable.
You need to choose a project type and a data access mode to meet the requirements.

What should you do?

A. In SSDT, select the multidimensional project type and use the MOLAP storage mode.
B. In SSDT, select the multidimensional project type and use the ROLAP storage mode.
C. In SSDT, select the tabular project type and use the DirectQuery query mode.
D. In SSDT, select the tabular project type and use the In-Memory query mode.

Answer: D

Question: 163

You are developing a SQL Server Analysis Services (SSAS) multidimensional database.
The underlying data source does not have a time dimension table.
You need to implement a time dimension.
What should you do?

A. Use the SQL Server Data Tools Dimension Wizard and generate a time table in the data source.
B. Create a time dimension by using the Define dimension intelligence option in the Business Intelligence Wizard.
C. Create a time dimension by using the Define time intelligence option in the Business Intelligence Wizard.
D. Add an existing SSAS database time dimension as a cube dimension.

Answer: A

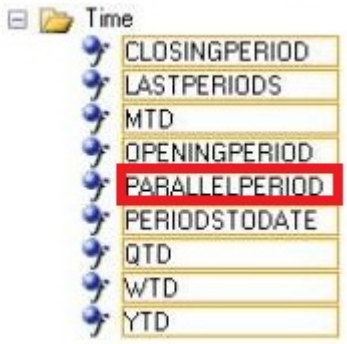
Question: 164

HOTSPOT
You are developing a SQL Server Analysis Services (SSAS) cube.
You are writing the following Multidimensional Expressions (MDX) statement for use by a calculated measure. The measure computes the sales amount for the same time period of the previous year. (Line numbers are included for reference only.)

```
01    CREATE MEMBER CURRENTCUBE.Measures.SamePeriodPreviousYearSales AS
02    (Measures.[Sales Amount],
03    _________________ (
04        [Date Order].[Calendar].[Calendar Year],
05        1,
06        [Date Order].[Calendar].CurrentMember)),
07    FORMAT_STRING = "#,#.00";
```

You need to complete the MDX statement.
Which MDX function should you use in line 03? To answer, select the appropriate MDX function in the functions list.

Answer:



Question: 165

DRAG DROP

You are developing a SQL Server Analysis Services (SSAS) cube.

You need to add a calculated member to the Customer dimension to evaluate the sum of values for the United Kingdom and the United States.

Which expression should you use? (To answer, drag the appropriate expression to the answer area.)

```
[Customer].[Customer Geography].[Country].&[United
Kingdom] & [Customer].[Customer Geography].[Country].&
[United States]
```

```
{[Customer].[Customer Geography].[Country].&[United
Kingdom],[Customer].[Customer Geography].[Country].&
[United States]}
```

```
[Customer].[Customer Geography].[Country].&[United
Kingdom] UNION [Customer].[Customer Geography].
[Country].&[United States]
```

```
SUM({[Customer].[Customer Geography].[Country].&[United
Kingdom],[Customer].[Customer Geography].[Country].&
[United States]})
```

```
SUM(([Customer].[Customer Geography].[Country].&[United
Kingdom],[Customer].[Customer Geography].[Country].&
[United States]))
```

```
CREATE MEMBER
CURRENTCUBE.[Customer].[Customer Geography].[All].[UK and USA] AS
```

```
;
```

Answer:

Box 1:

```
SUM({[Customer].[Customer Geography].[Country].&[United
Kingdom],[Customer].[Customer Geography].[Country].&
[United States]})
```

Explanation:
Note:
* Example:
The following example uses the WITH MEMBER keyword and the SUM function to define a calculated member in the Measures dimension that contains the sum of the Reseller Sales Amount measure for the Canada and United States members of the Country attribute hierarchy in the Geography dimension.

```
WITH MEMBER Measures.NorthAmerica AS SUM
    (
      {[Geography].[Country].&[Canada]
        , [Geography].[Country].&[United States]}
     ,[Measures].[Reseller Sales Amount]
    )
SELECT {[Measures].[NorthAmerica]} ON 0,
[Product].[Category].members ON 1
FROM [Adventure Works]
```

Question: 166

DRAG DROP
You are developing a SQL Server Analysis Services (SSAS) multidimensional project. The project file includes two cubes named Finance and Operations. The project also includes a dimension named Date. The Date dimension includes two hierarchies named Fiscal and Calendar. The Date dimension has been added to both cubes.
You need to disable the Fiscal hierarchy in the Operations cube without impacting other database objects.
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.)

- Open the **Date** dimension in the dimension designer.
- Delete the **Fiscal** hierarchy from the **Operations** cube.
- Open the **Operations** cube in the cube designer.
- In the Properties window, set the **Enabled** property to **False**.
- In the Dimensions pane of the Cube Structure tab, select the **Fiscal** hierarchy of the **Date** dimension.
- In the Properties window, set the **Visible** property to **False**.
- In the Properties window, set the **AttributeHierarchyEnabled** property to **False**.
- In the Hierarchies pane of the dimension structure tab, select the **Fiscal** hierarchy.

Answer:

Box 1:

- Open the **Date** dimension in the dimension designer.

Box 2:

In the Hierarchies pane of the dimension structure tab, select the **Fiscal** hierarchy.

Box 3:

In the Properties window, set the **AttributeHierarchyEnabled** property to **False**.

Explanation:

Note:

* The value of the AttributeHierarchyEnabled property determines whether an attribute hierarchy is created. If this property is set to False, the attribute hierarchy is not created and the attribute cannot be used as a level in a user hierarchy; the attribute hierarchy exists as a member property only. However, a disabled attribute hierarchy can still be used to order the members of another attribute. If the value of the AttributeHierarchyEnabledproperty is set to True, the value of the AttributeHierarchyVisible property determines whether the attribute hierarchy is visible independent of its use in a user-defined hierarchy.

* To set the attribute hierarchy properties in the Employee dimension

1. Switch to Dimension Designer for the Employee dimension, and then click the Browser tab.
2. Verify that the following attribute hierarchies appear in the Hierarchy list:

- Base Rate
- Birth Date
- Login ID
- Manager SSN
- SSN

3. Switch to the Dimension Structure tab, and then select the following attributes in the Attributes pane, by using the CTRL key to select multiple attributes at the same time:

- Base Rate
- Birth Date
- Login ID
- Manager SSN
- SSN

4. In the Properties window, set the value of the AttributeHierarchyEnabled property to False for the selected attributes.

Etc.

Reference: Hiding and Disabling Attribute Hierarchies

Question: 167

You are conducting a design review of a multidimensional project.
In the Customer Geography dimension, all non-key attributes relate directly to the key attribute.
The underlying data of the Customer Geography dimension supports relationships between attributes.
You need to increase query and dimension processing performance.
What should you do?

A. For the dimension attributes of the Customer Geography dimension, define appropriate attribute relationships.
B. For the Customer Geography dimension, set the ProcessingPriority property to 1.
C. For the Customer Geography dimension, set the ProcessingMode property to LazyAggregations.
D. For the dimension attributes of the Customer Geography dimension, set the GroupingBehavior property to EncourageGrouping.

Answer: A

Question: 168

You are developing a SQL Server Analysis Services (SSAS) cube. The cube contains several dimensions, a local measure group, and a linked measure group. Both measure groups use MOLAP partitions.
You need to write-enable one of the linked measure group partitions to support Microsoft Excel 2010 PivotTable What-If Analysis.
What should you do before the partition can be write-enabled?

A. Implement the cube as a local cube.
B. Implement the linked measure group as a local measure group.
C. Ensure that the measure group measures only use semiadditive aggregation functions.
D. Ensure that the measure group measures only use nonadditive aggregation functions

Answer: B

Question: 169

You are developing a BI Semantic Model (BISM) that will be used to analyze complex budgeting and forecast data sourced from a financial database. The model will be deployed to a server with 32 GB of RAM.
The source data, located in a SQL Server data warehouse, is currently using 10 terabytes of disk space and is doubling in size every three months. The model will be queried by staff in the accounting department by using Microsoft Excel 2010.
You need to ensure the highest query performance and scalability for the accounting department queries.
Which project type should you choose?

A. PowerPivot workbook
B. tabular project that uses the In-Memory query mode
C. multidimensional project
D. tabular project that uses the DirectQuery query mode

Answer: C

Question: 170

You are developing a SQL Server Analysis Services (SSAS) tabular database. To maximize performance, queries must be resolved only by using cache.
You need to configure the appropriate query mode.
Which query mode should you select?

A. DirectQuery with In-Memory
B. In-Memory
C. In-Memory with DirectQuery
D. DirectQuery

Answer: B

Question: 171

You are developing a SQL Server Analysis Services (SSAS) tabular project.
A model contains tables and columns that must not be visible to the user. The columns and tables cannot be removed

because they are used in calculations.
You need to hide the tables and columns.
What should you do?

A. Right-click the applicable tables and columns and select the Hide option.
B. in the Properties window for the applicable tables and columns, set the Enabled property to False.
C. in the Properties window for the applicable tables and columns, set the Visible property to True.
D. Right-click the applicable tables and columns and select the Hide from Client Tools option.

Answer: D

Question: 172

You are developing a SQL Server Analysis Services (SSAS) tabular project.
A column named City must be added to the table named Customer. The column will be used in the definition of a hierarchy. The City column exists in the Geography table that is related to the Customer table.
You need to add the City column to the Customer table.
How should you write the calculation?

A. City:=RELATED(Geography[City])
B. =RELATEDTABLE(Geography)
C. =RELATED(Geography[City])
D. City:=Geography[City]
E. City:=RELATEDTABLE(Geography)
F. =Geography[City]

Answer: C

Question: 173

You are developing a SQL Server Analysis Services (SSAS) tabular project that will be used by the finance, sales, and marketing teams.
The sales team reports that the model is too complex and difficult to use. The sales team does not need any information other than sales related resources in the tabular model. The finance and marketing teams need to see all the resources in the tabular model.
You need to implement a solution that meets the needs of the sales team while minimizing development and administrative effort.
What should you do?

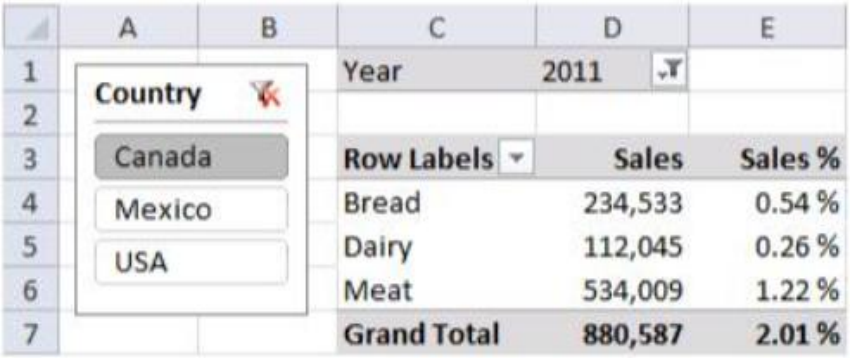
A. Create a separate tabular model for each team.
B. Hide the non-sales columns from the client tools.
C. Create a security role for the sales team.
D. Create a perspective for the sales team.

Answer: D

Question: 174

You are developing a SQL Server PowerPivot workbook that sources data from a SQL Azure database. The PowerPivot

model includes a single table named FactSales that consists of four columns named Year, Country, Product, and Revenue. The model includes the following two measures.
Sales:=SUM(FactSales[Revenue;)
Sales %:=;Sales] / CALCULATE([Sales], ALL(FactSales))
In Microsoft Excel 2010 you create the following PivotTable report.



Users report that the Sales % measure computes an incorrect ratio. The measure should meet a requirement to compute a ratio over all visible sales values defined by the query filters. The Grand Total value for the Sales % measure should equal 100%.
You need to fix the Sales % measure to meet the requirement.
Which Data Analysis Expressions (DAX) expression should you use?

A. = [Sales] / CALCULATE([Sales])
B. = [sales] / [Sales](ALLSELECTED(FactSales))
C. = [sales] / CALCULATE([Sales], VALUES(FactSales[Year]), VALUES(FactSales[Country]))
D. = [sales] / [Sales](ALLEXCEPT(FactSales, FactSales[Year]))

Answer: B

Question: 175

You are developing a SQL Server Analysis Services (SSAS) tabular project.
You need to grant the minimum permissions necessary to enable users to query data in a data model.
Which role permission should you use?

A. Explorer
B. Process
C. Administrator
D. select
E. Browser
F. Read

Answer: F

Question: 176

You are developing a SQL Server Analysis Services (SSAS) tabular project.
The model includes a table named DimEmployee. The table contains employee details, including the sales territory for each employee. The table also defines a column named EmployeeAlias which contains the Active Directory Domain Services (AD DS) domain and logon name for each employee. You create a role named Employees.
You need to configure the Employees roles so that users can query only sales orders for their respective sales territory.

What should you do?

A. Add a row filter that implements only the USERNAME function.
B. Add a row filter that implements the LOOKUPVALUE and USERNAME functions.
C. Add a row filter that implements only the CUSTOMDATA function.
D. Add a row filter that implements the LOOKUPVALUE and CUSTOMDATA functions.

Answer: B

Question: 177

You are developing a Microsoft SQL Analysis Services (SSAS) multidimensional project.
A fact table named FactHouseSales has a measure column named area. All values in the column are stored in square feet. Users must be able to analyze the area in different units.
You create a table named AreaUnit. Each row in the table consists of the unit name and a square feet conversion factor value.
You need to implement the area conversion in the project.
What should you do?
A. Use role playing dimensions.
B. Use the Business Intelligence Wizard to define dimension intelligence.
C. Add a measure that uses the Count aggregate function to an existing measure group.
D. Add a measure that uses the DistinctCount aggregate function to an existing measure group.
E. Add a measure that uses the LastNonEmpty aggregate function. Use a regular relationship between the time dimension and the measure group.
F. Add a measure group that has one measure that uses the DistinctCount aggregate function.
G. Add a calculated measure based on an expression that counts members filtered by the Exists and NonEmpty functions.
H. Add a hidden measure that uses the Sum aggregate function. Add a calculated measure aggregating the measure along the time dimension.
I. Create several dimensions. Add each dimension to the cube.
J. Create a dimension. Then add a cube dimension and link it several times to the measure group.
K. Create a dimension. Create regular relationships between the cube dimension and the measure group. Configure the relationships to use different dimension attributes.
L. Create a dimension with one attribute hierarchy. Set the XsAggregatable property to False and then set the DefaultMember property. Use a regular relationship between the dimension and measure group.
M. Create a dimension with one attribute hierarchy. Set the IsAggregatable property to False and then set the DefaultMember property. Use a many-to-many relationship to link the dimension to the measure group.
N. Create a dimension with one attribute hierarchy. Set the ValueColumn property, set the IsAggregatable property to False, and then set the DefaultMember property. Configure the cube dimension so that it does not have a relationship with the measure group. Add a calculated measure that uses the MemberValue attribute property.
O. Create a new named calculation in the data source view to calculate a rolling sum. Add a measure that uses the Max aggregate function based on the named calculation.

Answer: N

Question: 178

You are creating a SQL Server Analysis Services (SSAS) multidimensional database.
Users need a time dimension for:
Dates

Delivery dates
Ship dates
You need to implement the minimum number of required SSAS objects.
What should you do?

A. Use role playing dimensions.
B. Use the Business Intelligence Wizard to define dimension intelligence.
C. Add a measure that uses the Count aggregate function to an existing measure group.
D. Add a measure that uses the DistinctCount aggregate function to an existing measure group.
E. Add a measure that uses the LastNonEmpty aggregate function. Use a regular relationship between the time dimension and the measure group.
F. Add a measure group that has one measure that uses the DistinctCount aggregate function.
G. Add a calculated measure based on an expression that counts members filtered by the Exists and NonEmpty functions.
H. Add a hidden measure that uses the Sum aggregate function. Add a calculated measure aggregating the measure along the time dimension.
I. Create several dimensions. Add each dimension to the cube.
J. Create a dimension. Then add a cube dimension and link it several times to the measure group.
K. Create a dimension. Create regular relationships between the cube dimension and the measure group. Configure the relationships to use different dimension attributes.
L. Create a dimension with one attribute hierarchy. Set the XsAggregatable property to False and then set the DefaultMember property. Use a regular relationship between the dimension and measure group.
M. Create a dimension with one attribute hierarchy. Set the IsAggregatable property to False and then set the DefaultMember property. Use a many-to-many relationship to link the dimension to the measure group.
N. Create a dimension with one attribute hierarchy. Set the ValueColumn property, set the IsAggregatable property to False, and then set the DefaultMember property. Configure the cube dimension so that it does not have a relationship with the measure group. Add a calculated measure that uses the MemberValue attribute property.
O. Create a new named calculation in the data source view to calculate a rolling sum. Add a measure that uses the Max aggregate function based on the named calculation.

Answer: A

Question: 179

You are designing a SQL Server Reporting Services (SSRS) report based on a SQL Server Analysis Services (SSAS) cube. The cube is used to measure sales growth by salesperson.
The cube contains a Key Performance Indicator (KPI) to show if a salesperson's sales are off target, slightly off target, or on target.
You need to add a report item that visually displays the KPI status value as a red, yellow, or green flag.
Which report item should you add?

A. A Sparkline
B. A Gauge that uses the Radial type
C. An Indicator
D. A Gauge that uses the Linear type
E. A Data Bar

Answer: C

Question: 180

You install SQL Server Reporting Services (SSRS).
You need to back up a copy of the symmetric key.
Which command should you run?

A. rskeymgmt -d
B. rskeymgmt -i.
C. rskeymgmt -e -f %temp%\rs.key -p Password1
D. rskeymgmt -a -f %temp%\rs.key -p Password1

Answer: C

Question: 181

You are developing a SQL Server Reporting Services (SSRS) report. The report includes a dataset with fields named Year, MonthNumber, and InvCount. The report includes a table that displays the inventory count per year, as shown in the following diagram.

Inv Count

Year	Inv Count
1995	46,043
1996	45,741
1997	45,765
1998	45,848
1999	47,193
2000	48,456
2001	48,412
2002	47,902
2003	48,049
2004	48,442
2005	48,519
2006	48,837
2007	49,074
2008	48,981
2009	49,251
2010	49,407
2011	49,547

You need to modify the table to include a graphical item displaying the inventory count trend to the right of the Inv Count column.
What should you do?

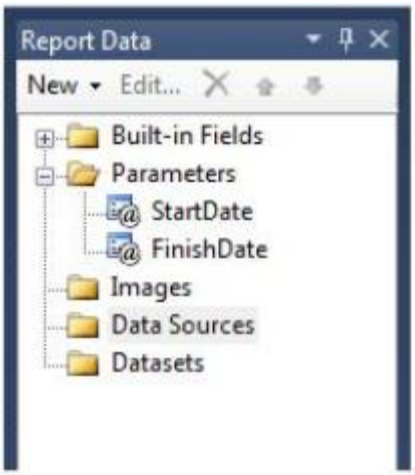
A. Add an Indicator item to a new column on the right of the Inv Count column. Select the Directional Indicator type and then select the MonthNumber field for Value.
B. Add a Sparkline item to a new column on the right of the Inv Count column. Then select the InvCount field for Values and the MonthNumber field for Category Groups.
C. Add an Indicator item to a new column on the right of the Inv Count column. Select the Directional Indicator type

and then assign the MonthNumber field to the Start property.
D. Add a Sparkline item to a new column on the right of the Inv Count column. Then select the InvCount field for Values and the MonthNumber field for Series Groups.
E. Add a text box to a new column on the right of the Inv Count column. Then use a Go to report action to link to a separate report showing the monthly trend.

Answer: B

Question: 182

DRAG DROP
You are developing a SQL Server Reporting Services (SSRS) report that sources data from a SQL Azure database and a SQL Server Analysis Services (SSAS) cube. The cube contains a date dimension and other dimensions. The report design includes two report parameters named StartDate and FinishDate as shown in the following diagram.



The Data Type property of the parameters is set to Date/Time.
You need to create the dataset based on the SSAS cube. You also need to ensure that the dataset is filtered by the existing report parameters.
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.)

Create a data source using the Microsoft SQL Server connection type.

Modify the parameter expressions of the dataset to include the **ToString()** function.

Create two report parameters with Date/Time data types to receive their default values from the two hidden datasets.

Create a dataset with a parameterized filter using a hierarchy from the date dimension that uses the **Contains** operator. Do not close the Dataset Properties window.

Create a dataset with a parameterized filter using a hierarchy from the date dimension that uses the **Range (Inclusive)** operator. Do not close the Dataset Properties window.

Create a data source using the Microsoft SQL Server Analysis Services connection type.

Write an expression in the dataset Parameter Value textbox that converts the Date/Time parameter values to be compatible with the dimension member.

Select the **Parameters** page and then assign an expression to each query parameter to convert the report parameter values to the appropriate date dimension hierarchy member keys.

Answer:

Box 1:

Create a data source using the Microsoft SQL Server Analysis Services connection type.

Box 2:

Create a dataset with a parameterized filter using a hierarchy from the date dimension that uses the **Range (Inclusive)** operator. Do not close the Dataset Properties window.

Box 3:

Select the **Parameters** page and then assign an expression to each query parameter to convert the report parameter values to the appropriate date dimension hierarchy member keys.

Explanation:

Note:

* In Reporting Services, a dataset is based on an existing a data source. A dataset specifies a query, query parameters, filters, and a field collection. You can also specify data options, such as case, collation, kanatype, width, and accent, for the data retrieved from the data source. For more information, see Understanding Report Datasets.

To create a dataset, you must have defined an embedded or shared data source.

* When you deploy Reporting Services, a set of data processing extensions are automatically installed and registered on both the report authoring client and on the report server to provide access to a variety of data source types . SQL Server 2008 Reporting Services (SSRS) installs the following data source types: Microsoft SQL Server, Microsoft SQL Server Analysis Services, Oracle, SAP NetWeaver BI, Hyperion Essbase, Teradata, OLE DB, ODBC, and XML.

* To define a query parameter in MDX in Design mode

1. In the Report Data pane, right-click on a dataset created from a SQL Server Analysis Services data source type, and then click Query. The MDX query designer opens in Design mode.
2. Drag a dimension to the filter area and drop it on the first cell in the Dimension column.
3. In the Hierarchy column, choose a value from the drop-down list.

4. In the Operator column, choose an operator for the drop-down list.
5. In the Filter Expression column, select individual values from the drop-down list, or click the All member to choose all values.
6. In the Parameters column, select the check box to create a report parameter.
7. Click Run.

After you run the query, click Design on the toolbar to toggle to Query mode to view the MDX query that was created. Do not change the query text in Query mode if you want to continue to use Design mode to develop the query. Click Design to toggle back to Design mode.

8. Click OK.

* To create a dataset

1. In the Report Data pane, right-click the name of the data source, and then click Add Dataset. The Query page of the Dataset Properties dialog box opens.
2. In Name, type a name for the dataset or accept the default name.
3. In Data source, select the name of an existing shared data source, or click New to create a new embedded data source.
4. Select a Query type option. Options vary depending on the data source type.
1. Select Text to write a query using the query language of the data source.
2. Select Table to return all the fields in a relational database table.
3. Select StoredProcedure to run a stored procedure by name.
5. In Query, type the query, stored procedure, or table name. Alternatively, click Query Designer to open the graphical or text-based query designer tool, or Import to import the query from an existing report.

In a few cases, the field collection specified by the query can only be determined by running the query on the data source. For example, a stored procedure may return a variable set of fields in the result set. Click Refresh Fields to run the query on the data source and retrieve the field names that are needed to populate the dataset field collection in the Report Data pane. The field collection appears under the dataset node after you close the Dataset Properties dialog box.

6. In Timeout, type the number of seconds that the report server waits for a response from the database. The default value is 0 seconds. When the time out value is 0 seconds, the query does not time out.
7. Click OK.

The dataset and its field collection appear in the Report Data pane under the data source node.

Reference: How to: Create a Dataset (Reporting Services); How to: Define Parameters in the MDX Query Designer for Analysis Services (Report Builder 3.0 and SSRS)

Question: 183

You are managing a SQL Server Reporting Services (SSRS) instance in native mode. A system role named Developer Support is present on the server.

Members of the Developer Support role cannot modify the report execution timeout period.

You need to enable members of the Developer Support role to modify the report execution timeout period.

Which task should you add to the Developer Support role?

A. Execute report definitions
B. Manage shared schedules
C. Manage jobs
D. Manage report server properties

Answer: D

Question: 184

You are designing a SQL Server Reporting Services (SSRS) report to display vineyard names and their year-to-date

(YTD) grape yield. Grape yield values are classified in three bands:
High Yield
Medium Yield
Low Yield
You add a table to the report. Then you define two columns based on the fields named VineyardName and YTDGrapeYield.
You need to set the color of the vineyard text to red, yellow, or blue, depending on the value of the YTD grape yield values.
What should you do?

A. Add an indicator to the table.
B. Use an expression for the Style property of the vineyard text box.
C. Use an expression for the Font property of the vineyard text box.
D. Use an expression for the TextDecoration property of the vineyard text box.
E. Use an expression for the Color property of the vineyard text box.

Answer: E

Question: 185

You are working with a SQL Server Reporting Services (SSRS) instance in native mode. An item role named Developer is present on the server.
The Developer role cannot view and modify report caching parameters.
You need to ensure that the Developer role can view and modify report caching parameters.
Which task should you add to the Developer role?

A. Manage report history
B. Manage all subscriptions
C. view data sources
D. Manage individual subscriptions

Answer: A

Question: 186

DRAG DROP
You manage a SQL Server Reporting Services (SSRS) instance running in native mode.
You are troubleshooting a performance problem and need to know which reports are frequently executed. You discover that the report server execution logs are empty, despite significant report activity.
You need to ensure that the server is configured for report execution logging.
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.)

Enable the **Enable report execution logging** option.

Open Reporting Services Configuration Manager.

Open SharePoint Central Administration.

Open the Server Properties window.

In the Application Management Group, click **Manage Service Applications**.

In SQL Server Management Studio (SSMS), connect to the server that runs Report Server.

Answer:

Box 1:

Open SharePoint Central Administration.

Box 2:

In the Application Management Group, click **Manage Service Applications**.

Box 3:

Enable the **Enable report execution logging** option.

Explanation:
Note:
To enable execution logging:
1. From SharePoint Central Administration, click Manage service applications in the Application Management group.
2. Click the name of the Reporting Services service application you want to configure.
3. Click System Settings.
4. Select Enable Execution Logging in the Logging section.
5. Click OK.

Reference: Report Server Execution Log and the ExecutionLog3 View

Question: 187

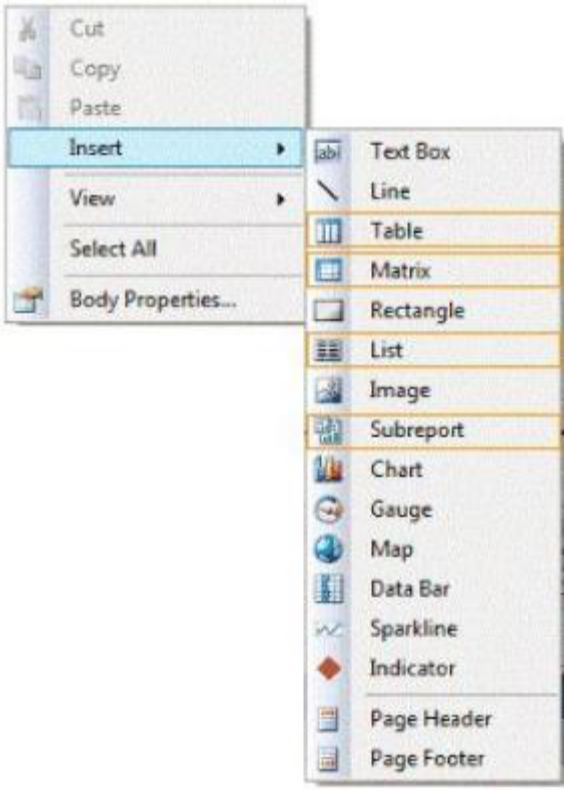
You manage an environment that has SharePoint Server 2010 and a SQL Server Reporting Services (SSRS) instance in SharePoint integrated mode. Several report subscriptions are configured to deliver reports through a shared folder by using a shared schedule. The shared folder will be going offline.
You need to temporarily suspend the shared schedule until the shared folder is brought back online.
What should you do?

A. In SharePoint Central Administration, pause the shared schedule.
B. Open Report Manager and then delete the shared schedule.
C. In SharePoint Central Administration, delete the shared schedule.
D. Open Report Manager and then pause the shared schedule.

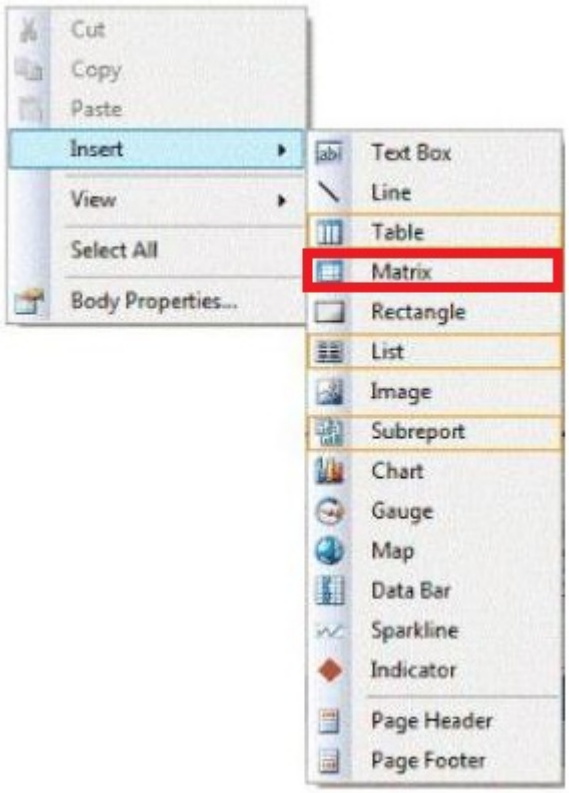
Answer: A

Question: 188

HOTSPOT
You are designing a SQL Server Reporting Services (SSRS) report that sources data from a SQL Azure database.
You need to design the report to show the sum of sales. The sales must be grouped by region on the rows and year on the columns.
Which report item should you add? To answer, select the appropriate setting in the answer area.



Answer:

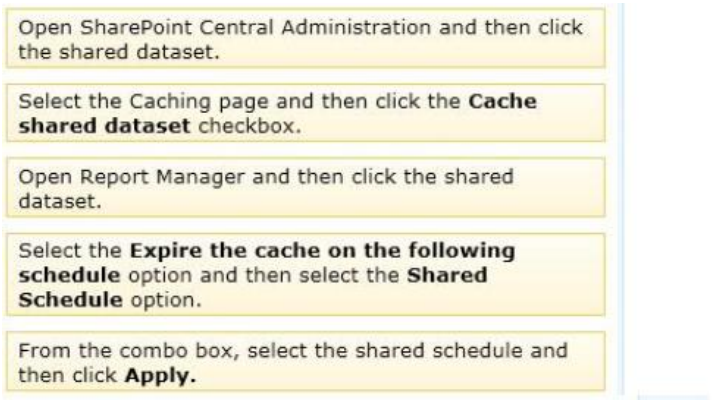


Question: 189

DRAG DROP

You manage a SQL Server Reporting Services (SSRS) instance in native mode. You are building a shared dataset for your weekly performance reports. The shared dataset uses a data source that is configured to use credentials that are

stored in the Report Server.
You have a predefined shared schedule to perform cleanup and maintenance tasks for SSRS.
You need to enable caching on the shared dataset. You also need to use an existing shared schedule to discard the cache.
Which four 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.)



Answer:

Box 1: Open Report Manager and then click the shared dataset.
We should use Report Manager (not SharePoint Central Administration).
Box 2: Select the Caching page and then click the Cache shared dataset checkbox.
We set up caching.
Box 3: Select the Expire the cache on the following schedule option and then select the Shared Schedule option.
We configure caching further.
Box 4: From the combo box, select the shared schedule and then click Apply.
Finally we define scheduling.

Explanation:
Note on caching:
To open the Caching properties page for a shared dataset
1. Open Report Manager, and locate the report for which you want to configure shared dataset properties.
2. Point to the shared dataset, and click the drop-down arrow.
3. In the drop-down list, click Manage. The General properties page for the report opens.
4. Click the Caching tab.

Options include:
Cache shared dataset (Box 2 above)
Places a temporary copy of the data in a cache when a user first opens a report that uses this shared dataset. Subsequent users who run the report within the caching period receive the cached copy of the data. Caching usually improves performance because the data is returned from the cache instead of running the dataset query again.
Expire the cache on the following schedule (box 3 above)
Schedule the time when the cached data is no longer valid and is removed from the cache. The schedule can be a shared schedule or one that is specific for only the current shared dataset.
Reference: SQL Server 2012, Caching Page, Shared Datasets (Report Manager)

Question: 190

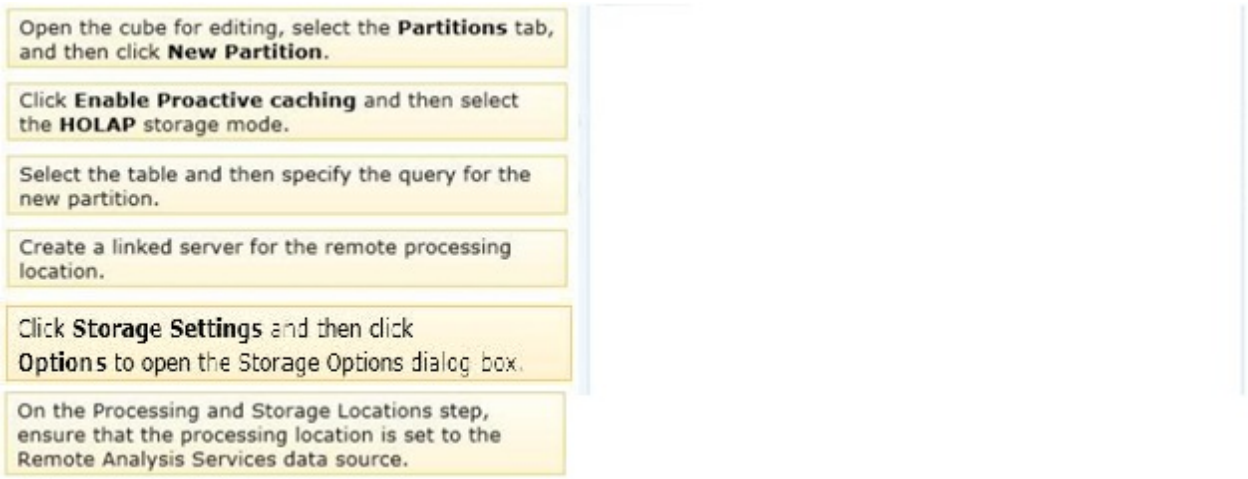
You are modifying a SQL Server Analysis Services (SSAS) multidimensional database.
You have identified a dimension that is no longer used by any cubes.
You need to delete the dimension.
What should you do?

A. Write a Multidimensional Expressions (MDX) command to drop the dimension from the database.
B. Write a Data Mining Extensions (DMX) command to drop the dimension from the database.
C. Write a T-SQL command to drop the dimension from the database.
D. Delete the dimension by using SQL Server Management Studio Object Explorer.

Answer: D

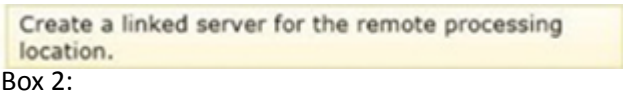
Question: 191

DRAG DROP
You are developing a SQL Server Analysis Services (SAS) multidimensional project that is configured to source data from a SQL Azure database.
You plan to use multiple servers to process different partitions simultaneously. You create and configure a new data source.
You need to create a new partition and configure SQL Server Analysis Services (SSAS) to use a remote server to process data contained within the partition.
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.)

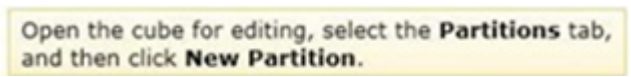


Answer:

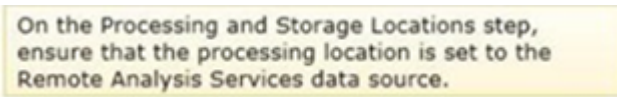
Box 1:



Box 2:



Box 3:

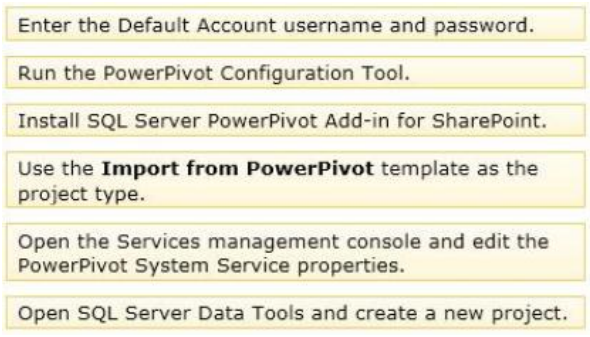


Explanation:
Note:
* You create a remote partition using the Partition Wizard. On the Specify Processing and Storage Options page, for the Remote Analysis Services data source, specify the dedicated database on the remote instance of Analysis Services. This instance of Analysis Services is called the remote server of the remote partition. For Storage location, you can specify the default data location for the remote server or a specified folder on the server.
You must create an Analysis Services database on the remote server and provide appropriate security settings. An additional OLAP data source is created on the remote database pointing to the server on which the partition is

defined. The MasterDatasourceID property setting on the remote database points to the data source which, in turn, points to the master server. This property is only set on a database that contains remote partitions. The RemoteDatasourceID property setting on the remote partition specifies the ID of the OLAP data source on the master server that points to the remote server. A remote database can only host remote partitions for a single server.
* Before you create a remote partition, the following conditions must be met:
A database dedicated to serving remote partitions for the local database must be created on the remote server.
The domain user account for the local instance of SQL Server Analysis Services must have administrative access to the remote instance of Analysis Services.
In order to create or maintain a remote partition, your user name must also be included in the OLAP Administrators group for both the remote and the local instances of Analysis Services.
The domain user account for the local instance of Analysis Services must have administrative access to the remote database.
Reference: Creating and Managing a Remote Partition

Question: 192

DRAG DROP
You are planning the installation of PowerPivot for SharePoint.
You install SharePoint Server 2010 Enterprise Edition with Service Pack 1.
You need to install the PowerPivot for SharePoint instance. Then you need to configure the Default Account username used to provision shared services in the SharePoint farm.
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.)



Answer:

Box 1:

Box 2:

Box 3:

Explanation:
Note:
Note:
* (Box 1) PowerPivot Add-in for SharePoint
PowerPivot for SharePoint is a collection of middle-tier and backend services that provide PowerPivot data access in a SharePoint 2013 farm. The PowerPivot for SharePoint add-in (spPowerpivot.msi) is an installer package used to install the middle-tier components.
* (Box 2, Box 3) Update an expired password for SQL Server Analysis Services (PowerPivot) instance
1. Point to Start, click Administrative Tools, and then click Services. Double-click SQL Server Analysis Services (PowerPivot). Click Log On, and then enter the new password for the account.

2. In Central Administration, in the Security section, click Configure managed accounts.
3. Click Edit to change a specific account.
4. Select Change password now.
5. Select Set account password to new value. All services that run under the managed account will use the updated credentials.

Reference: Change Service Accounts and Passwords (PowerPivot for SharePoint)

Question: 193

You are troubleshooting query performance for a SQL Server Analysis Services (SSAS) cube.
A user reports that a Multidimensional Expressions (MDX) query is very slow.
You need to identify the MDX query statement in a trace by using SQL Server Profiler.
Which event class should you use?

A. Progress Report Begin
B. Query Begin
C. Execute MDX Script Begin
D. Calculate Non Empty Begin
E. Get Data From Aggregation
F. Query Subcube

Answer: B

Question: 194

A multinational retailer has retail locations on several continents. A single SQL Server Reporting Services (SSRS) instance is used for global reporting.
A SQL Server Analysis Services (SSAS) instance for each continent hosts a multidimensional database named RevenueData. Each RevenueData database stores data only for the continent in which it resides. All of the SSAS instances are configured identically. The cube names and objects are identical. Reports must meet the following requirements:
A report parameter named ServerName must be defined in each report.
When running a report, users must be prompted to select a server instance.
The report data source must use the Microsoft SQL Server Analysis Services data source type.
You need to create a data source to meet the requirements.
How should you define the expression that is assigned to the connection string property of the data source?

A. ="Server=" &Parameters!ServerName.Value& ";Initial Catalog=RevenueData"
B. ="Data Source=" &Parameters!ServerName.Value& ";Initial Catalog=RevenueData"
C. ="Server=" & Parameters!ServerName.Value
D. ="Data Source=@ServerName;Initial Catalog=RevenueData"
E. ="Server=@ServerName;Initial Catalog=RevenueData"

Answer: B

Question: 195

You are developing a SQL Server Analysis Services (SSAS) multidimensional database.
The underlying data source does not have a time dimension table. You need to implement a time dimension.
What should you do?

A. Add an existing SSAS database time dimension as a cube dimension.
B. Use the SQL Server Data Tools Dimension Wizard and generate a time table on the server.
C. Use the SQL Server Data Tools Dimension Wizard and generate a time table in the data source.
D. Use the SQL Server Data Tools Dimension Wizard and generate a time dimension by using the Use an existing table option.
E. Create a CSV file with time data and use the DMX IMPORT statement to import data from the CSV file.
F. Create a time dimension by using the Define time intelligence option in the Business Intelligence Wizard.
G. Create a time dimension by using the Define dimension intelligence option in the Business Intelligence Wizard.
H. Create a script by using a sample time dimension from a different multidimensional database. Then create a new dimension in an existing multidimensional database by executing the script.

Answer: B

Question: 196

You are developing a SQL Server Analysis Services (SSAS) tabular project. The model has tables named Invoice Line Items and Products. The Invoice Line Items table has the following columns:
Product Id
Unit Sales Price The Unit Sales Price column stores the unit price of the product sold. The Products table has the following columns:
Product Id
Maximum Sales Price
The Maximum Sales Price column is available only in the Products table.
You add a column named Is Overpriced to the Invoice Line Items table. The Is Overpriced column must store a value of TRUE if the value of the Unit Sales Price is greater than the value of the Maximum Sales Price. Otherwise, a value of FALSE must be stored.
You need to define the Data Analysis Expressions (DAX) expression for the Is Overpriced column.
Which DAX formula should you use? (Each answer represents a complete solution. Choose all that apply.)

A. =IF([Unit Sales Price] > RELATED(Products[Maximum Sales Price]), TRUE, FALSE)
B. =IF(RELATED(Products[Unit Sales Price]) > [Maximum Sales Price], TRUE, FALSE)
C. =IF([Unit Sales Price] > LOOKUPVALUE(Products[Maximum Sales Price], Products[Product Id], [Product Id]), TRUE, FALSE)
D. =IF(LOOKUPVALUE(Products[Unit Sales Price], Products[Product Id], [Product Id]) > [Maximum Sales Price]), TRUE, FALSE)

Answer: AC

Explanation:
A: RELATED Function
Returns a related value from another table.
* The RELATED function requires that a relationship exists between the current table and the table with related information. You specify the column that contains the data that you want, and the function follows an existing many-to-one relationship to fetch the value from the specified column in the related table.
C:
The lookupvalue function returns the value in result_columnName for the row that meets all criteria specified by search_columnName and search_value.
Syntax:
LOOKUPVALUE(<result_columnName>, <search_columnName>, <search_value>[, <search_columnName>, <search_value>]…)

Note:
The syntax of DAX formulas is very similar to that of Excel formulas, and uses a combination of functions, operators, and values.

Question: 197

You are developing a SQL Server Analysis Services (SSAS) cube for the sales department at your company. The sales department requires the following set of metrics:
Unique count of customers
Unique count of products sold
Sum of sales
You need to ensure that the cube meets the requirements while optimizing query response time.
What should you do? (Each answer presents a complete solution. Choose all that apply.)

A. Place the measures in a single measure group.
B. Place the distinct count measures in separate measure groups.
C. Use the additive measure group functions.
D. Use the semiadditive measure group functions.
E. Use the Count and Sum measure aggregation functions.
F. Use the Distinct Count and Sum measure aggregation functions.

Answer: BD

Explanation:
B: Typically, the best performance occurs when each distinct count measure is in its own measure group, and that measure group has the same dimensionality as the initial measure group.
D: Semiadditive Function
Select the aggregation function for the selected measure.
The aggregate functions available include DistinctCount, Aggregated using the DistinctCount function.

Question: 198

You are working with multiple tabular models deployed on a single SQL Server Analysis Services (SSAS) instance.
You need to ascertain the memory consumed by each object in the SSAS instance.
What should you do?

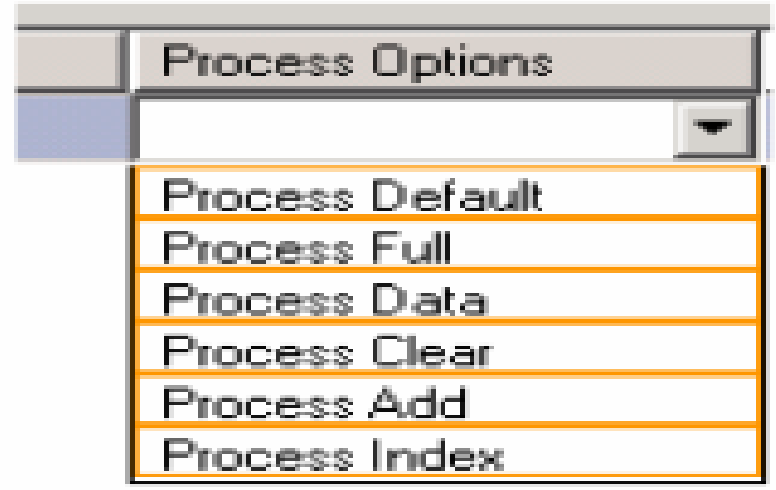
A. Use the $System.discover_object_memory_usage dynamic management view.
B. Use the Usage Based Optimization wizard to design appropriate aggregations.
C. Use SQL Server Profiler to review session events for active sessions.
D. Use the Performance Counter group named Processing.

Answer: A

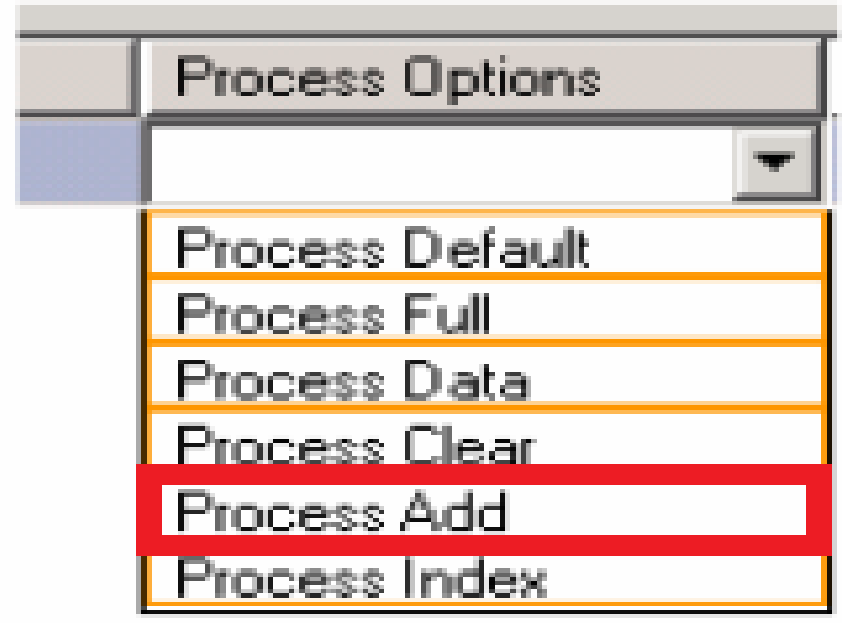
Question: 199

HOTSPOT
You maintain a multidimensional Business Intelligence Semantic Model (BISM) that was developed with default settings.
The model has one cube and the cube has one measure group. The measure group is based on a very large fact table and is partitioned by month. The fact table is incrementally loaded each day with approximately 800,000 new rows.

You need to ensure that all rows are available in the cube while minimizing the processing time.
Which processing option should you use? (To answer, select the appropriate option in the answer area.)



Answer:



Question: 200

You are planning to develop a SQL Server Analysis Services (SSAS) tabular project. The project will be deployed to a SSAS server that has 16 GB of RAM.
The project will source data from a SQL Server 2012 database that contains a fact table named Sales. The fact table has more than 60 billion rows of data.
You need to select an appropriate design to maximize query performance.
Which data access strategy should you use? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Configure the database to use DirectQuery mode. Create a columnstore index on all the columns of the fact table.
B. Configure the database to use In-Memory mode. Create a clustered index which includes all of the foreign key columns of the fact table.
C. Configure the database to use In-Memory mode. Create a columnstore index on all the columns of the fact table.
D. Configure the database to use DirectQuery mode. Create a clustered index which includes all of the foreign key columns of the fact table.

Answer: A

Question: 201

You are administrating a SQL Server Analysis Services (SSAS) tabular database.
You need to create a new role that allows its members to query data and to refresh data in the model.
Which permission should you use? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Read and Process
B. Explore and Manage
C. Browse And Manage
D. Administrator

Answer: A

Question: 202

You are developing a SQL Server Analysis Services (SSAS) tabular project.
In the data warehouse, a table named Employee Security defines a relationship between a salesperson's name, logon ID, and assigned sales territory.
You need to ensure that each salesperson has access to data from only the sales territory assigned to that salesperson. You also need to minimize the development effort.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Create a separate tabular project for each sales territory. Grant each salesperson access to the corresponding tabular model of the assigned sales territory.
B. Create a new Active Directory Domain Services (AD DS) security group and add each salesperson as a member. Then create a new role with Read permission. Add the group as a member to the new role.
C. Create a new role with Read permission and then add each salesperson's logon as a member to the role.
D. Add the Employee Security table to the model, define the relationships, and then implement dynamic security by using row filters. Grant each salesperson access to the model.

Answer: D

Question: 203

You are developing a SQL Server Reporting Services (SSRS) sales summary report.
The report header consists of several images.
You need to ensure that the header of the report is hidden when a user exports the report to PDF format.
Which Hidden property expression should you use for the report header? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. = True
B. = False
C. = (Globals!RenderFormat.Name = "PDF")
D. = (Globals!RenderFormat.IsInteractive = False)

Answer: C

Question: 204

You are managing a SQL Server Reporting Services (SSRS) instance.
A website must pass credentials to the local security authority for Reporting Services.
You need to configure Reporting Services to issue a challenge/response when a connection is made without credentials.
Which authentication type should you configure in the RSReportServer.config file?

A. RSWindowsKerberos and RSWindowsNegotiate
B. RSWindowsKerberos only
C. RSWindowsKerberos and RSWindowsNTLM
D. RSWindowsBasic

Answer: A

Question: 205

HOTSPOT
You create a new report in SQL Server Data Tools (SSDT). The report queries a Windows Azure SQL Database database table.
In a report table showing sales by countries and cities, you need to enable users to hide or show cities by clicking the name of a country.
Which property page of the city text box should you use? (To answer, select the appropriate tab in the answer area.)

Answer:

Question: 206

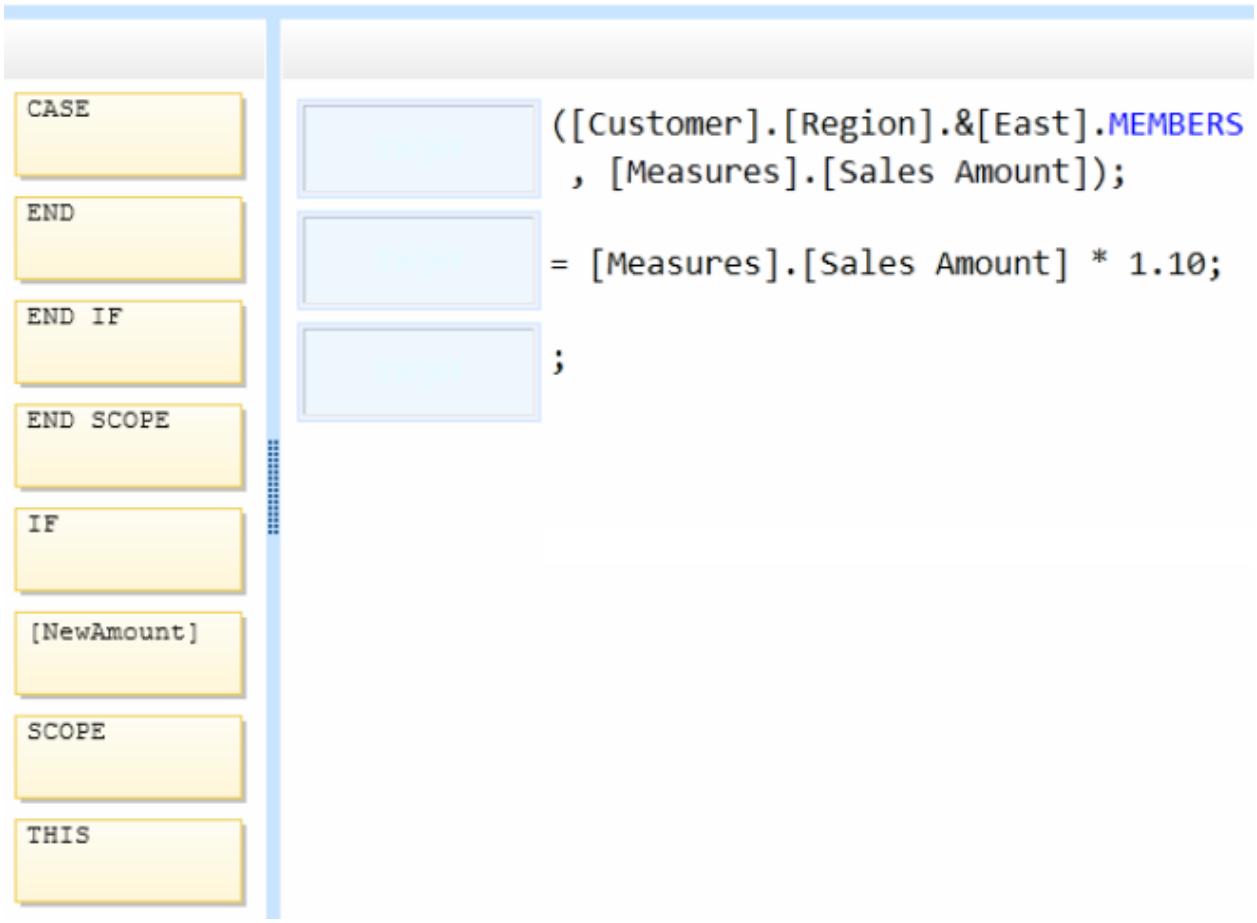
You are designing a SQL Server Reporting Services (SSRS) report based on a SQL Server Analysis Services (SSAS) cube. The cube contains a Key Performance Indicator (KPI) to show if a salesperson's sales are off target, slightly off target, or on target.
You need to add a report item that visually displays the KPI status value as a red, yellow, or green circle.
Which report item should you add?

A. Data Bar
B. Indicator
C. Radial Gauge
D. Linear Gauge
E. Sparkline

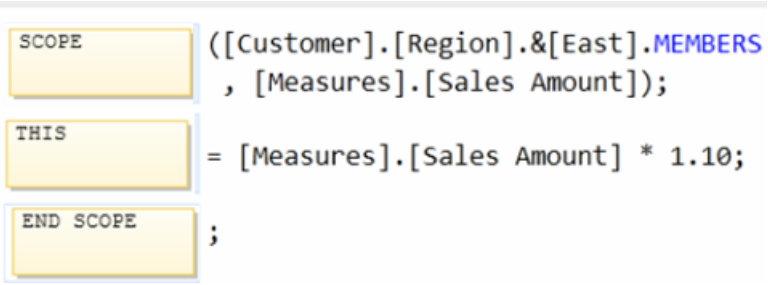
Answer: B

Question: 207

DRAG DROP
You are making changes to a cube named Sales.
You must increase the value of the measure named Sales Amount by 10%. The increase must be applied only to the children of the member named East in the dimension named Customer.
You need to complete the Multidimensional Expressions (MDX) statement in the calculations section of the Sales cube.
Which statement fragments should you use? (To answer, drag the appropriate statement component to the correct location or locations in the answer area. Use only components that apply.)



Answer:

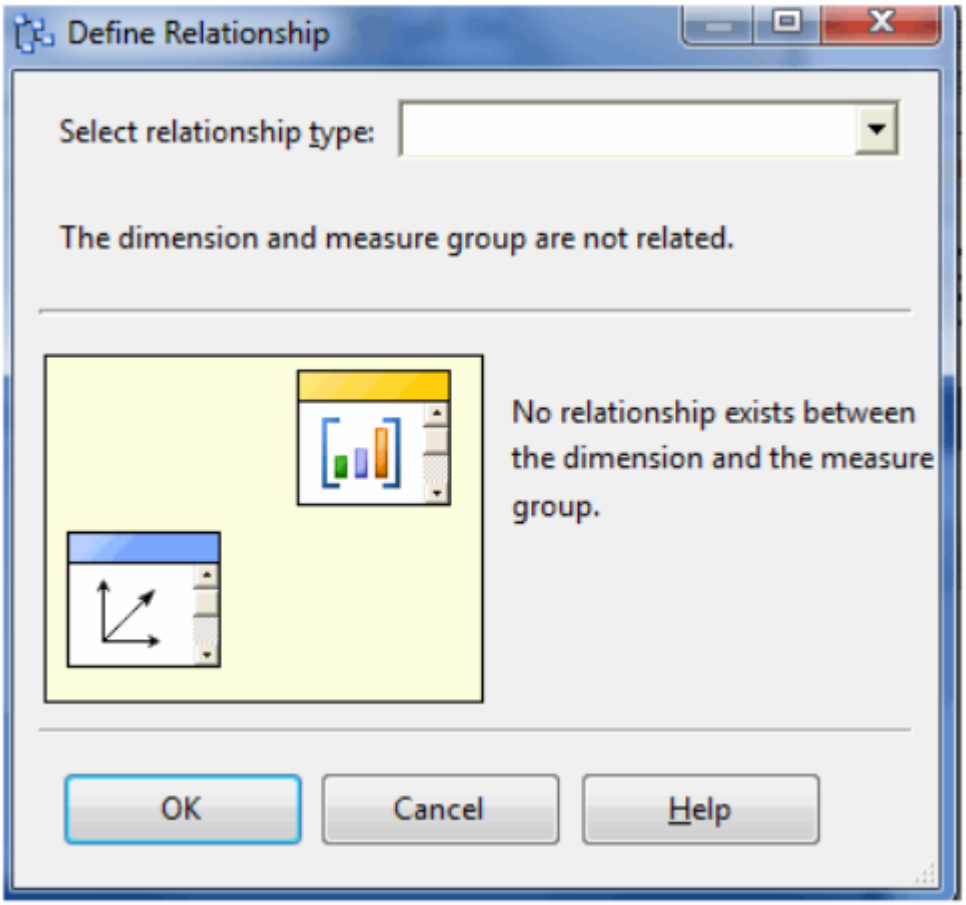


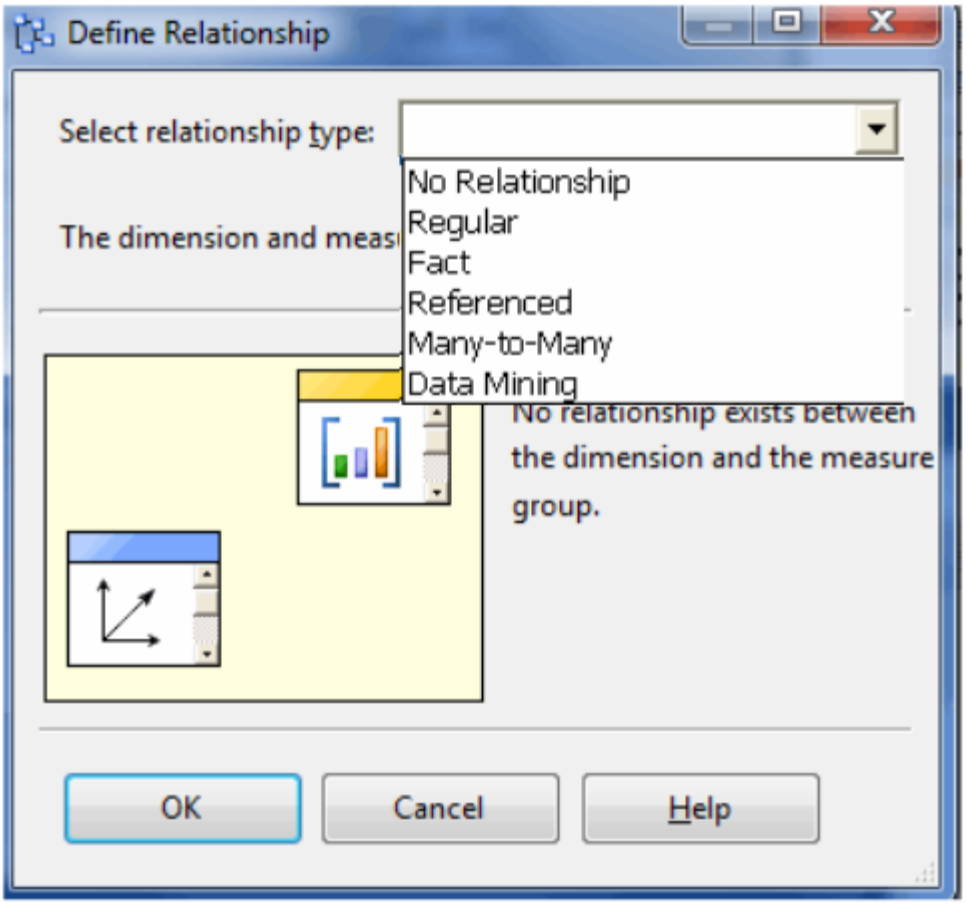
Explanation:
Note:
SCOPE THIS END SCOPE
* SCOPE Statement (MDX)
Limits the scope of specified Multidimensional Expressions (MDX) statements to a specified subcube.
* Example:

```
cope
 (
   [Date].[Fiscal Year].&[2002],
   [Date].[Fiscal].[Month].Members
 ) ;
  This = [Date].[Fiscal].CurrentMember.Parent / 3 ;
 End Scope ;
```

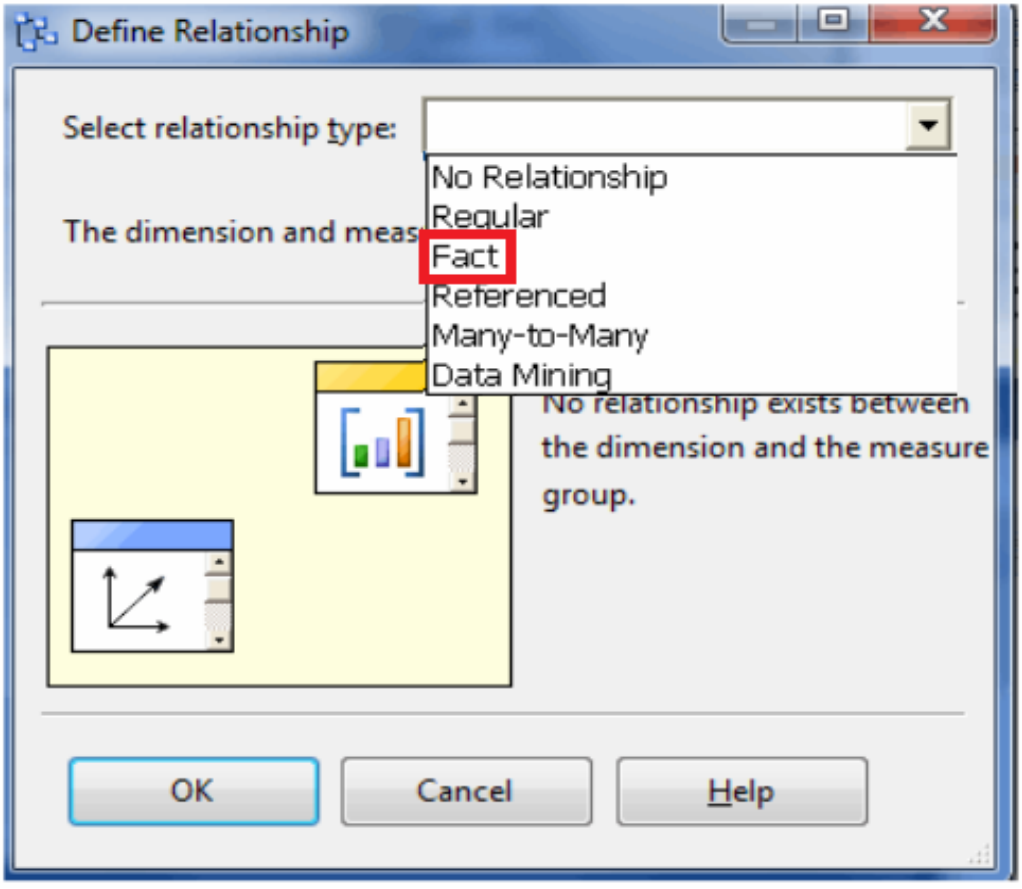
Question: 208

HOTSPOT
You are developing a SQL Server Analysis Services (SSAS) cube.
You create a degenerate dimension.
You need to define a relationship type for the dimension.
Which relationship type should you select? (To answer, configure the appropriate option or options in the dialog box in the answer area.)




Define Relationship
Select relationship type:
The dimension and meas
No Relationship
Regular
Fact
Referenced
Many-to-Many
Data Mining
No relationship exists between the dimension and the measure group.
OK
Cancel
Help

Answer:


Define Relationship
Select relationship type:
The dimension and meas
No Relationship
Regular
Fact
Referenced
Many-to-Many
Data Mining
No relationship exists between the dimension and the measure group.
OK
Cancel
Help

Question: 209

You are modifying a SQL Server Analysis Services (SSAS) cube that aggregates mobile phone usage data from a Windows Azure SQL Database database. The existing database contains a device dimension.
The Research and Development team has requested that capabilities be added to the database.
The capabilities must meet the following requirements:
A device member must be able to have multiple capability members.
A capability member must be able to belong to several device members.
The Research and Development team must be able to create new capabilities every quarter in the data source.
You need to implement the appropriate solution to meet the requirements while ensuring that the amount of development and maintenance time is minimized.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Add an attribute hierarchy for each capability to the customer dimension. Configure each hierarchy to have two members named Yes and No.
B. Create a dimension named Capability Name and then configure a many-to-many relationship.
C. Add an attribute hierarchy named Capability Name to the customer dimension.
D. Create a dimension named Capability Name and then configure a regular relationship.

Answer: B

Question: 210

You work in the Business Intelligence (BI) department of a multinational company.
The company has requested a new corporate BI solution that meets the following requirements:
The solution must use SQL Server Analysis Services (SSAS).
The model must incrementally add 10 million fact rows per month.
The model must be translated to English, French, or Spanish based on users' locale.
The model must be able to contain the most recent 36 months of data.
You need to select the appropriate model type and partitioning strategy to meet the requirements.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Create a multidimensional model with one partition for all of the data.
B. Create a multidimensional model with one partition for each month.
C. Create a tabular model with one partition for all of the data.
D. Create a tabular model with one partition for each month.

Answer: C

Question: 211

You are developing a SQL Server Analysis Services (SSAS) cube named Sales Planning. The cube consists of two measure groups named Sales and Planning.
Each measure group is based on a data warehouse fact table and consists of a single MOLAP partition that has the same name as its measure group.
The Planning measure group consists of two measures:
Forecast, which uses the Sum aggregate function
Forecast Count, which uses the Count aggregate function
Users contribute planning values by using a legacy application. An extract, transform, load (ETL) process is scheduled to periodically transfer the planning values from the database of the legacy application to the data warehouse.

Financial analysts query the Sales Planning cube and report that the planning values are sometimes out of date. A new company requirement mandates that the planning values be entered directly into the cube by using Microsoft Excel 2010 PivotTable What-If Analysis.
You need to write-enable the Planning partition.
What should you do before write-enabling the partition?

A. Set the ProcessingMode property of the Planning partition to LazyAggregations.
B. Set the Type property of the Planning measure group to Budget.
C. Remove the Forecast Count measure.
D. Convert the Planning measure group to a linked measure group.
E. Set the StorageMode property of the Planning partition to Rolap.
F. Set the ProcessingMode property of the Planning measure group to LazyAggregations.

Answer: C

Question: 212

You are developing a new SQL Server Reporting Services (SSRS) report in SQL Server Data Tools (SSDT). This report has a table named Table1 and a textbox named Textbox1.
Table1 is initially visible but the user must be able to choose when to hide it.
You need to develop the report to meet the requirement.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Add a parameter to the report so users can choose the display state of Table1.
B. For the properties of Table1, configure the Display can be toggled by this report item option to use Textbox1.
C. Configure Textbox1 to drill through to rerun the report to toggle the display of Table1.
D. For the properties of Table1, configure the Display can be toggled by this report item option to use Table1.

Answer: B

Question: 213

A large manufacturing company has manufacturing plants in many states. Each state has a dedicated SQL Server instance that stores its manufacturing data. Each SQL Server instance is configured identically and all instances have identical database structures.
You are developing a daily report that summarizes information on manufacturing activity.
The report has the following requirements:
It must have a state name as one of the report parameters.
It must provide a daily summary of manufacturing activity of a selected state.
It must require minimal development and maintenance effort.
You need to develop the report to meet the requirements.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)
A. Use a shared data source that defines an expression-based connection string based on the state parameter.
B. Build a centralized data repository, schedule a regular Extract, Transform, and Load (ETL) process on all manufacturing data, and then use the repository to generate the report.
C. Use a report-specific data source that defines an expression-based connection string based on the state parameter.
D. Build one report for each state and instruct users to execute reports as needed.

Answer: C

Question: 214

You manage a SQL Server Reporting Services (SSRS) instance.
An application must pass credentials to the local security authority for Reporting Services.
You need to configure Reporting Services to issue a challenge/response when a connection is made without credentials.
Which authentication type should you configure in the RSReportServer.config file?

A. RSWindowsNTLM
B. RSWindowsBasic
C. RSWindowsKerberos
D. RSWindowsNegotiate

Answer: B

Question: 215

You maintain a multidimensional Business Intelligence Semantic Model (BISM) that was developed with default settings.
The model has one cube and the cube has one measure group. The measure group is based on a very large fact table and is partitioned by month. The fact table is incrementally loaded each day with approximately 800,000 new rows.
You need to ensure that all rows are available in the cube while minimizing the processing time.
Which processing option should you use?

A. Process Add
B. Process Clear
C. Process Default
D. Process Index
E. Process Data
F. Process Full

Answer: A

Question: 216

You are developing a tabular Business Intelligence Semantic Model (BISM) database based on a SQL Server database.
In the data source, the FactInternetSales table is partitioned by month. Data from the current month has been updated and new data has been inserted in the FactInternetSales table, in the DimProduct table, and in the DimCustomer table.
In the model, the FactInternetSales table is also partitioned by month.
You need to ensure that the model has the most recent data while minimizing the processing time.
What should you do?

A. Process the latest FactInternetSales model table partition, the DimProduct table, and the DimCustomer cable with the Process Defrag processing option. Then process the database with the Process Recalc processing option.
B. Process the latest FactInternetSales model table partition, the DimProduct table, and the DimCustomer table with the Process Clear processing option. Then process the database with the Process Data processing option.
C. Process the latest FactInternetSales model table partition, the DimProduct table, and the DimCustomer table with the Process Data processing option. Then process the database with the Process Defrag processing option.
D. Process the latest FactInternetSales model table partition, the DimProduct table, and the DimCustomer table with

the Process Clear processing option. Then process the database with the Process Full processing option.
E. Process the latest FactInternetSales model table partition, the DimProduct table, and the DimCustomer table with the Process Data processing option. Then process the database with the Process Recalc processing option.

Answer: D

Question: 217

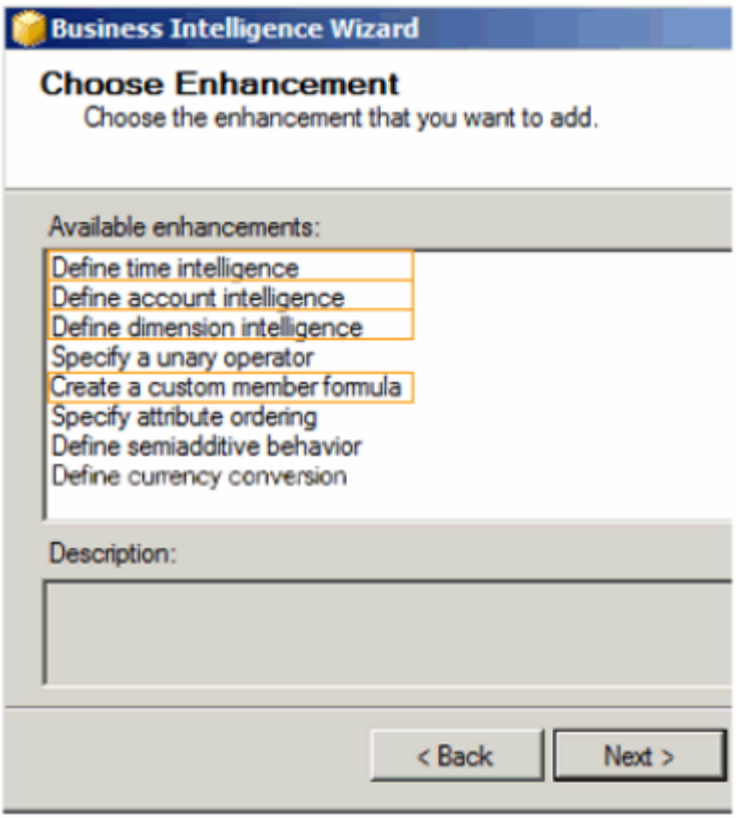
You are designing a SQL Server Analysis Services (SSAS) cube based on a Windows Azure SQL Database data warehouse.
You need to implement a degenerate dimension.
What should you do?

A. Use the fact table as the data source for the dimension.
B. Create a junk dimension table based on the fact table in the data source.
C. Create snowflake dimension tables based on normalized views of the fact table in the data source.
D. Add a surrogate key to the fact table and use it as the degenerate dimension key.

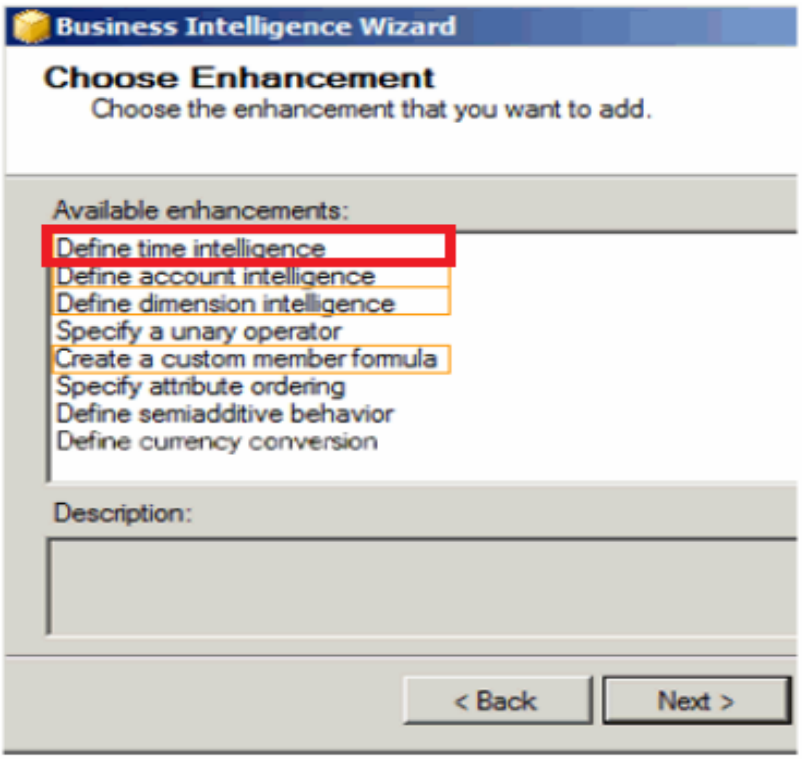
Answer: A

Question: 218

HOTSPOT
A sales cube contains two years of data.
The sales team must see year-over-year (YOY) and month-over-month (MOM) sales metrics.
You need to modify the cube to support the sales team's requirements.
Which Business Intelligence Wizard enhancements should you use? (To answer, configure the appropriate option or options in the dialog box in the answer area.)



Answer:



Question: 219

You are restructuring an existing cube. One of the measures in the cube is Amount. The Sum aggregation function is used for the Amount measure. The cube includes a dimension named Account and the dimension's Type property is set to Accounts. The Account dimension includes an account type attribute.

You need to ensure that the Amount measure aggregates correctly according to the account type classification.

Development effort must be minimized.
What should you do? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Add the ByAccount attribute to the account dimension.
B. Use SQL Server Data Tools to change the AggregateFunction property value of the Amount measure to ByAccount.
C. Develop a .NET application that uses Analysis Management Objects (AMO) to change the existing AggregateFunction property value of the Amount measure to ByAccount and then use the application.
D. Develop a .NET application that uses Analysis Management Objects (AMO) to change the existing AggregateFunction property value of the Amount measure to FirstNonEmpty and then use the application.

Answer: B

Question: 220

You develop a SQL Server Analysis Services (SSAS) tabular project. The tabular model loads data from a SQL Server 2012 relational database each day.
You define a connection.
You need to ensure that the connection minimizes the attack surface area of the server.
How should you define the impersonation information for the connection? (More than one answer choice may achieve the goal. Select the BEST answer.)

A. Use the credentials of the SQL Server Analysis Services (SSAS) service account. Grant least privilege to this account in the source database.
B. Use your domain credentials. Grant least privilege to your account in the source database.
C. Create and use a new Windows domain account. Grant least privilege to this account in the source database.
D. Use SQL Server authentication.

Answer: C

Question: 221

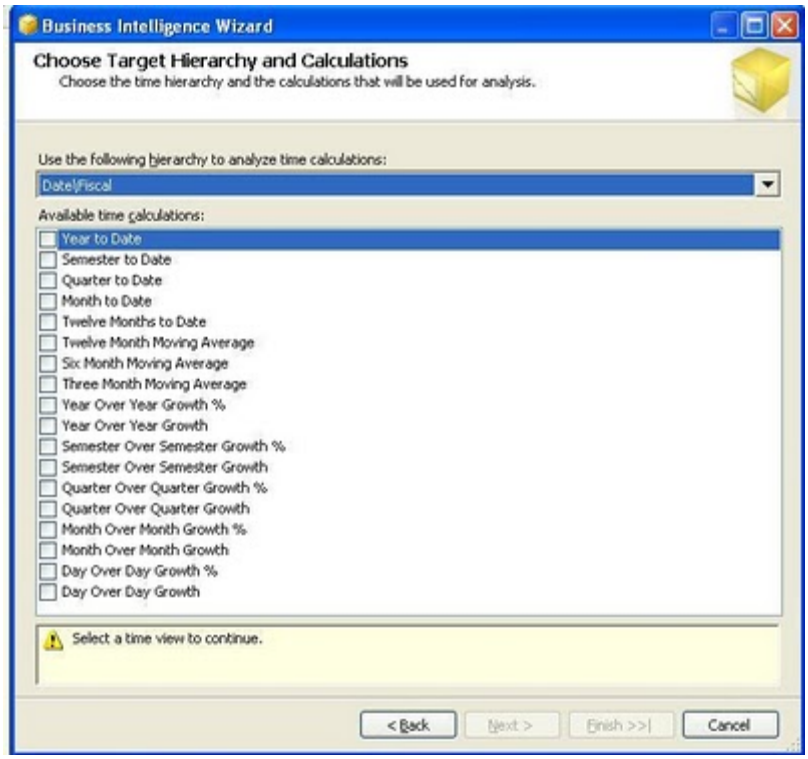
You are developing a SQL Server Analysis Services (SSAS) tabular project. A model defines a measure named Revenue and includes a table named Date. The table includes year, semester, quarter, month, and date columns. The Date column is of data type Date. The table contains a set of contiguous dates.
You need to create a measure to report on year-over-year growth of revenue.
What should you do? (Each answer presents a complete solution. Choose all that apply.)

A. Define the following calculation.
Year Over Year Revenue Growth:= CALCULATE([Revenue], DATEADD('Date'[Date], 1, YEAR))
B. Define the following calculation.
Year Over Year Revenue Growth:-[Revenue; = CALCULATE ([Revenue;, PARALLELPERIOD ('Date'[Date;, -12, MONTH))
C. Use the Business Intelligence Wizard and then use the Define time intelligence enhancement.
D. Define the following calculation.
Year Over Year Revenue Growth: = [Revenue] = CALCULATE ([Revenue], SAMEPERIODLASTYEAR('Date' [Date]))

Answer: BC

Explanation:
B: Variance analysis for SSAS OLAP cubes is not a simple matter of adding a calculated field to a pivot table. Planning along with the use of the ParallelPeriod MDX functions allows us to quickly create a variance infrastructure for a

particular measure. Furthermore, by utilizing a date hierarchy in the Parallel Period function, we can easily traverse down the hierarchy for any attribute below the parallel period level noted in the function (i.e., parallel period based on Year can show either one year back per year, quarter, or month). Although, other methods exist, the parallel period method can be easily followed and applied to various measures.
C: SSAS Provides feature called "Time Intelligence Wizard". This feature will provide neat GUI to achieve the same purpose which we were trying by MDX code [using the PARALLELPERIOD function].
Example:
Lets explore the "Time Intelligence Wizard":
1) In BIDS, Click "Cube" in menu bar and select "Add business Intelligence"
2) Click "Time Intelligence Wizard" on next screen.
3) "Choose Target Hierarchy and Calculations" screen



Case Study: 1

Scenario 1

General Background

You are the data architect for a company that uses SQL Server 2012 Enterprise Edition. You design data modeling and reporting solutions that are based on a sales data warehouse.

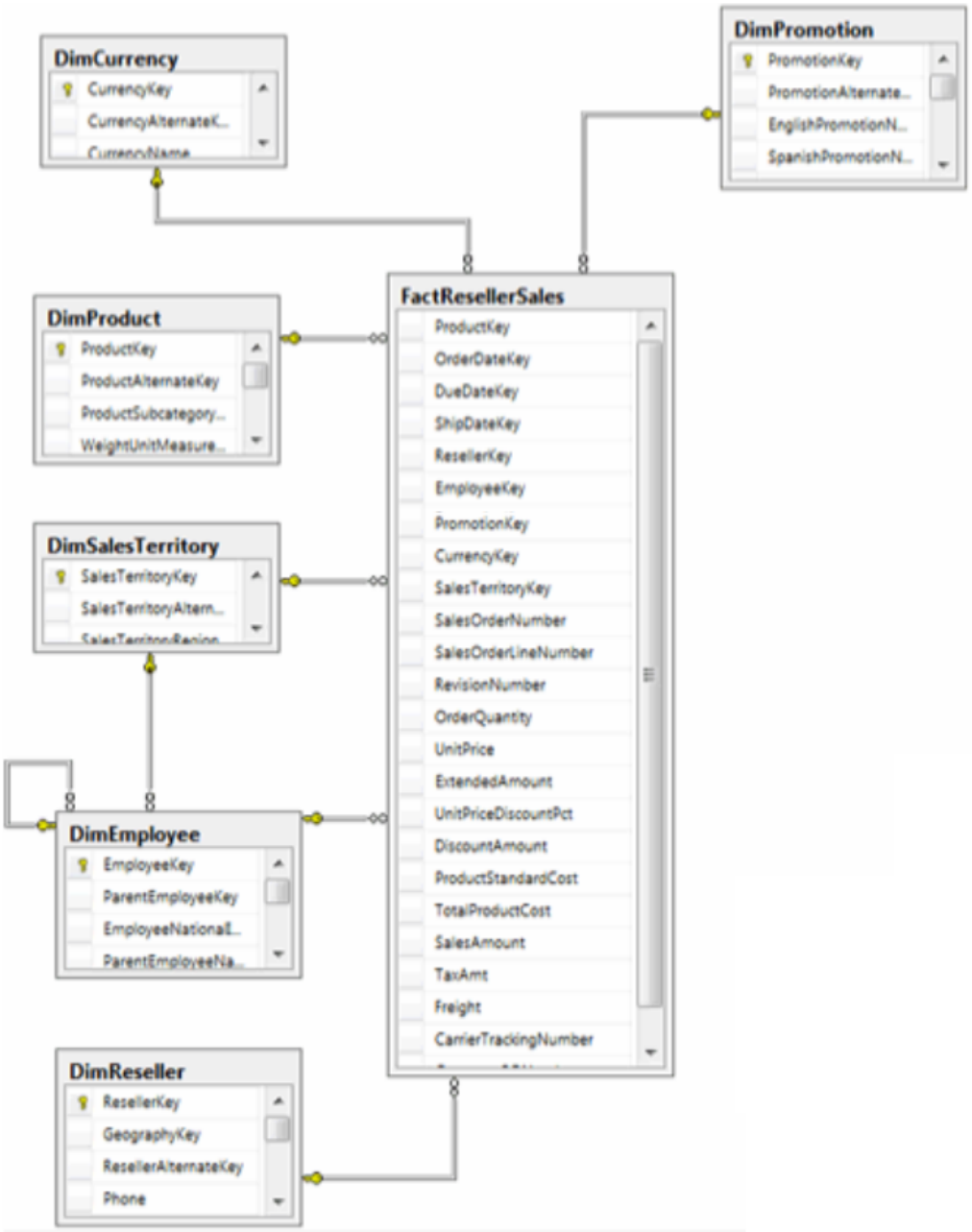
Background

The solutions will be deployed on the following servers:

- ServerA runs SQL Server Database Engine. ServerA is the data warehouse server.
- ServerB runs SQL Server Database Engine, SQL Server Analysis Services (SSAS) in multidimensional mode, and SQL Server Integration Services (SSIS).

- ServerC runs SSAS in tabular mode, SQL Server Reporting Services (SSRS) running in SharePoint mode, and Microsoft SharePoint 2010 Enterprise Edition with SP1.

The data warehouse schema currently contains the tables shown in the exhibit. (Click the Exhibit button.)



Business Requirements

The reporting solution must address the requirements of the sales team, as follows:

- Team members must be able to view standard reports from SharePoint.
- Team members must be able to perform ad-hoc analysis by using Microsoft Power View and Excel.
- Team members can have standard reports delivered to them on a schedule of their choosing.
- The standard reports:
- Will use a sales territory hierarchy for organizing data by region.

- Will be accessible from SharePoint.

The Excel ad-hoc reports:

- Will use the same data store as the standard reports.
- Will provide direct access to the data store for the sales team and a simplified view for the executive team.

Technical Requirements

The standard reports must be based on an SSAS cube. The schema of the data warehouse on ServerA must be able to support the ability to slice the fact data by the following dates:

- Order date (OrderDateKey)
- Due date DueDateKey
- Ship date (ShipDateKey)

Additions and modifications to the data warehouse schema must adhere to star schema design principles to minimize maintenance and complexity.

The multidimensional and tabular models will be based on the data warehouse. The tabular and multidimensional models will be created by using SQL Server Data Tools (SSDT). The tabular project is named AdhocReports and the multidimensional project is named StandardReports.

The cube design in the StandardReports project must define two measures for the unique count of sales territories (SalesTerritoryKey) and products (ProductKey).

A deployment script that can be executed from a command-line utility must be created to deploy the StandardReports project to ServerB.

The tabular model in the AdhocReports project must meet the following requirements:

- A hierarchy must be created that consists of the SalesTerritoryCountry and SalesTerritoryRegion columns from the DimSalesTerritory table and the EmployeeName column from the DimEmployee table.
- A key performance indicator (KPI) must be created that compares the total quantity sold (OrderQuantity) to a threshold value of 1,000.
- A measure must be created to calculate day-over-day (DOD) sales by region based on order date.

SSRS on ServerC must be configured to meet the following requirements:

- It must use a single data source for the standard reports.
- It must allow users to create their own standard report subscriptions.
- The sales team members must be limited to only viewing and subscribing to reports in the Sales Reports library.

A week after the reporting solution was deployed to production, Marc, a salesperson, indicated that he has never received reports for which he created an SSRS subscription. In addition, Marc reports that he receives timeout errors when running some reports on demand.

Question: 1

You need to deploy the StandardReports project.
What should you do? (Each correct answer presents a complete solution. Choose all that apply.)

A. Deploy the project from SQL Server Data Tools (SSDT).
B. Use the Analysis Services Deployment utility to create an XMLA deployment script.
C. Use the Analysis Services Deployment wizard to create an MDX deployment script.
D. Use the Analysis Services Deployment wizard to create an XMLA deployment script.

Answer: AD

Explanation:
There are several methods you can use to deploy a tabular model project. Most of the deployment methods that can be used for other Analysis Services projects, such as multidimensional, can also be used to deploy tabular model projects.
A: Deploy command in SQL Server Data Tools
The Deploy command provides a simple and intuitive method to deploy a tabular model project from the SQL Server Data Tools authoring environment.
Caution:
This method should not be used to deploy to production servers. Using this method can overwrite certain properties in an existing model.
D: The Analysis Services Deployment Wizard uses the XML output files generated from a Microsoft SQL Server Analysis Services project as input files. These input files are easily modifiable to customize the deployment of an Analysis Services project. The generated deployment script can then either be immediately run or saved for later deployment.
Incorrect:
not B: The Microsoft.AnalysisServices.Deployment utility lets you start the Microsoft SQL Server Analysis Services deployment engine from the command prompt. As input file, the utility uses the XML output files generated by building an Analysis Services project in SQL Server Data Tools (SSDT).

Question: 2

You need to create the hierarchy in the AdhocReports project in time for the next production release cycle.
What should you do?

A. Multi-select all of the columns, right-click the columns, and then click the Create Hierarchy command. Check in the changes before the next release cycle.
B. Use the RELATED() function to consolidate the columns in the DimSalesTerritory table, multi-select the columns, right-click the columns, and then click the Create Hierarchy command. Check in the changes before the next release cycle.
C. Use the RELATEDTABLEQ function to consolidate the tables, multi-select the columns in the hierarchy, right-click the columns, and then click the Create Hierarchy command. Check in the changes before the next release cycle.
D. Use the RELATED() function to consolidate the columns in the DimEmployee table, multi-select the columns, right-click the columns, and then click the Create Hierarchy command. Check in the changes before the next release cycle.

Answer: D

Question: 3

You need to identify the reports that produce the errors that Marc is receiving.
What should you do?

A. Write a query by using the Subscriptions table in the report server database.
B. Use the Windows Event Viewer to search the Application log for errors.
C. Write a query by using the ExecutionLog3 view in the report server database.
D. Search the ReportServerService_<timestamp>.log file for errors.

Answer: C

Question: 4

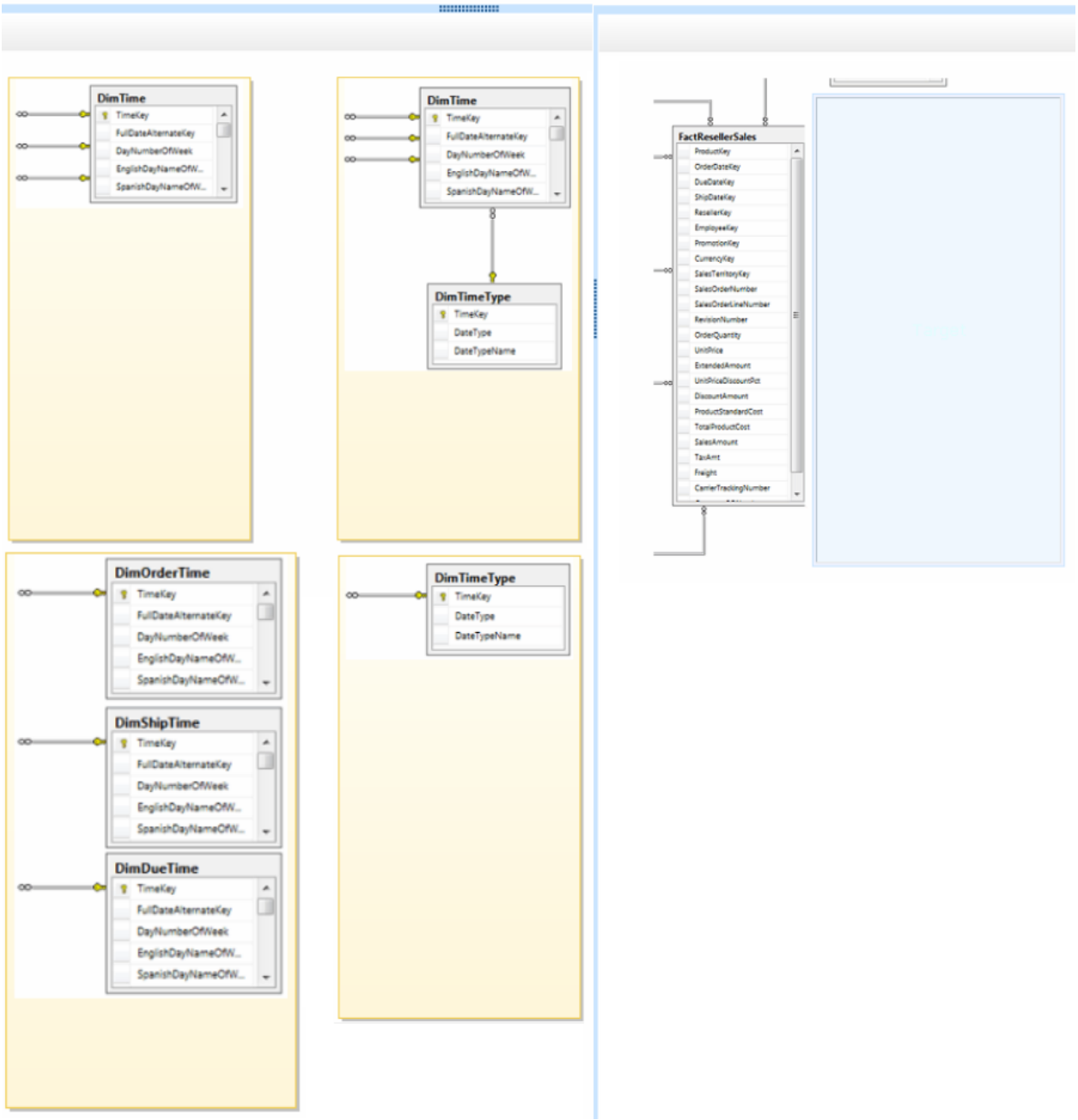
You need to create the KPI in the AdhocReports project in time for the next production release cycle.
What should you do?

A. Create a measure by using the SUM([OrderQuantity]) expression and create a KPI based on the measure. Then set the target value. Check in the changes before the next release cycle.
B. Create a KPI based on the OrderQuantity column and then set the target value. Check in the changes before the next release cycle.
C. Create a measure by using the SUM([OrderQuantity]) expression. Then use the CREATE KPI CURRENTCUBE statement to define the KPI and target value. Check in the changes before the next release cycle.
D. Create a measure by using the COUNT([OrderQuantity]) expression and create a KPI based on the measure. Then set the target value. Check in the changes before the next release cycle.

Answer: C

Question: 5

DRAG DROP
You need to complete the design of the data warehouse.
Which design should you use? (To answer, drag the appropriate tables and relationships to the correct location in the answer area. Use only the tables and relationships that apply.)


DimTime
TimeKey
FullDateAlternateKey
DayNumberOfWeek
EnglishDayNameOfW...
SpanishDayNameOfW...
DimTime
TimeKey
FullDateAlternateKey
DayNumberOfWeek
EnglishDayNameOfW...
SpanishDayNameOfW...
DimTimeType
TimeKey
DateType
DateTypeName
FactResellerSales
ProductKey
OrderDateKey
DueDateKey
ShipDateKey
ResellerKey
EmployeeKey
PromotionKey
CurrencyKey
SalesTerritoryKey
SalesOrderNumber
SalesOrderLineNumber
RevisionNumber
OrderQuantity
UnitPrice
ExtendedAmount
UnitPriceDiscountPct
DiscountAmount
ProductStandardCost
TotalProductCost
SalesAmount
TaxAmt
Freight
CarrierTrackingNumber
DimOrderTime
TimeKey
FullDateAlternateKey
DayNumberOfWeek
EnglishDayNameOfW...
SpanishDayNameOfW...
DimShipTime
TimeKey
FullDateAlternateKey
DayNumberOfWeek
EnglishDayNameOfW...
SpanishDayNameOfW...
DimDueTime
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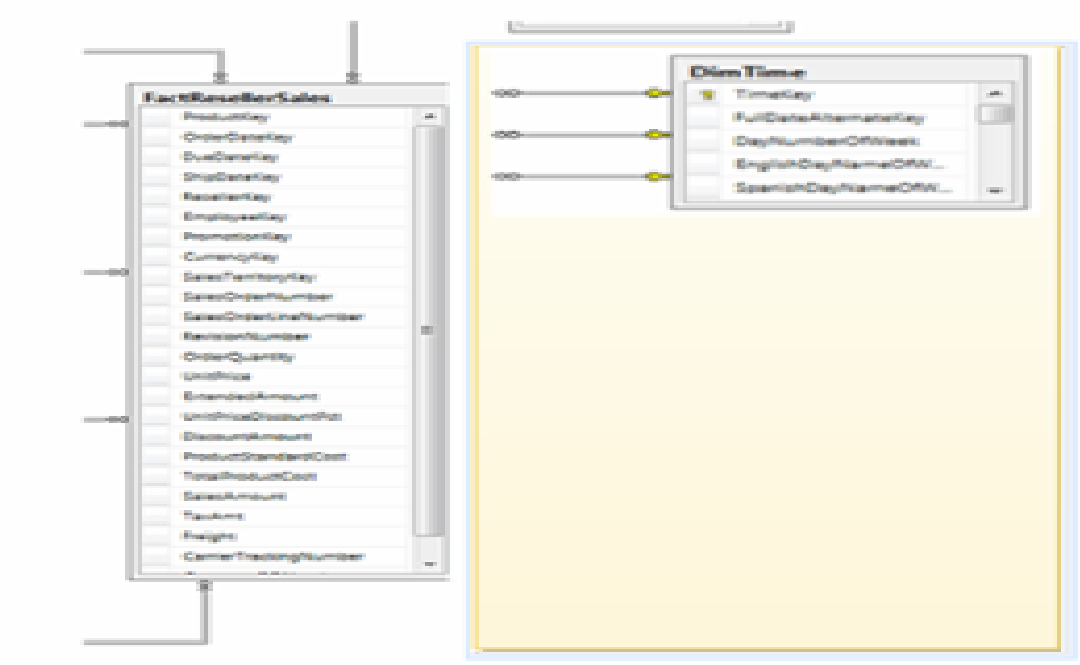
EnglishDayNameOfW...
SpanishDayNameOfW...
DimTimeType
TimeKey
DateType
DateTypeName

Answer:



Question: 6

You need to ascertain why Marc did not receive his reports.
What should you do?

A. Search the ReportServerService_<timestamp>.log file for errors.
B. Search the registry for errors.
C. Use the Windows Event Viewer to search the Application log for errors.
D. Use SQL Server Management Studio to search the SQL Server logs for errors.

Answer: B

Question: 7

You need create the data source view for the StandardReports project.
What should you do?

A. Generate a relational schema from the dimensions and cubes by using the Schema Generation wizard.
B. Create a data source, connect it to the data warehouse, and then use the Data Source View wizard.
C. Execute the Import from Table wizard and then use the Data Source View wizard.
D. Create a new data source view and then use the Import from Table wizard.

Answer: B

Question: 8

You need to create the sales territory and product measures.
Which aggregate function should you use for both measures?

A. COUNT (DISTINCT column_name)

B. Distinct Count
C. Distinct
D. Count

Answer: B

Question: 9

You need to configure the SSRS data source.
What should you do?

A. Store the credentials.
B. In the data source configuration window, select the Prompt for credentials option.
C. Create a .NET form to enable users to enter their credentials.
D. Configure Kerberos authentication.

Answer: A

Question: 10

You need to create a measure for DOD sales.
What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

A. Specify a date table by using a Mark as Date table.
B. Use the Data Analysis Expressions (DAX) PARALLELPERIOD() function.
C. Use the Business Intelligence Wizard to define time intelligence.
D. Use the Multidimensional Expressions (MDX) LAG() function.

Answer: AC

Explanation:
* From scenario:
A measure must be created to calculate day-over-day (DOD) sales by region based on order date.
A: Specify Mark as Date Table for use with Time Intelligence (SSAS Tabular)
In order to use time intelligence functions in DAX formulas, you must specify a date table and a unique identifier (datetime) column of the Date data type. Once a column in the date table is specified as a unique identifier, you can create relationships between columns in the date table and any fact tables.
C: The time intelligence enhancement is a cube enhancement that adds time calculations (or time views) to a selected hierarchy. This enhancement supports the following categories of calculations:
Period to date.
Period over period growth.
Moving averages.
Parallel period comparisons.

Case Study: 2

Contoso Ltd

Background

You are the business intelligence (BI) solutions architect for Contoso Ltd, a multinational sales company with offices in London, Madrid, Paris, Brisbane, Tokyo, and New York. Contoso sells office consumable products such as pens, printer ink, and paper.

You produce solutions by using SQL Server 2012 Business Intelligence Edition and Microsoft SharePoint Server 2010 Enterprise Edition with SP1.

Technical Background

Contoso's products are categorized by using four levels while some use only two or three levels. Products are categorized as shown in the following table.

Product Type	Product Category	Product Sub Category	Product Sub Section
Papers	Copy Paper		
	Note	Sticky Notes	
		"Sign Here" Notes	
Tapes and Glue	Adhesive Glue		
	Tape	Masking Tape	
		Sticky Tape	
Writing	Pens	Ball Pens	
		Pencils	
		Whiteboard Markers	Permanent Markers
			Removable Markers
	Corrections	Correction Tape	
		Correction Fluid	
	Erasers		

Contoso sells products through mobile sales staff, direct marketing, and its website. Sales personnel are located in various regions around the world, and each region has a sales manager who is paid a quarterly bonus based on the total sales in the region during the quarter. Regions are categorized as shown in the following table.

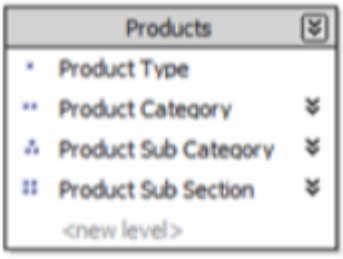
Region	Country	State
Oceania	Australia	Queensland
		New South Wales
	New Zealand	Canterbury
		Marlborough
Europe	Great Britain	Cornwall
		Aberdeen
		Cardiff
	Germany	Baden-Württemberg
		Saxony

SQL Server Analysis Services (SSAS) is used to host a multidimensional database. The database contains a single cube named Sales and three database dimensions named Products, Regions, and Date. A single measure named Sales Total has been defined in the cube. The data source for the database is a SQL Server data warehouse.

The Products dimension contains a single user-defined hierarchy named Products. To prevent the display of empty members when users browse the Products dimension, the Extract, Transform, and Load (ETL) process populates all missing values as shown in the following diagram.

Product Type	Product Category	Product Sub Category	Product Sub Section
Papers	Copy Paper	Copy Paper	Copy Paper
Papers	Note Papers	Sticky Notes	Sticky Notes

The structure of the Products hierarchy is shown in the following diagram.



The Regions dimension contains a single user-defined hierarchy named Sales Regions. The dimension is based on a single dimension table in the data warehouse and the attribute relationships have not been modified since the dimension was created by using the Dimension wizard. The structure of the Sales Regions hierarchy is shown in the following diagram.

The Date dimension contains a single user-defined hierarchy named Calendar. The structure of the Calendar hierarchy is shown in the following diagram.

A role named UserRegions has been created in the SSAS database that will be used to filter members in the Regions dimension based on the authenticated user.

Administrative staff from around the world will produce sales reports with Microsoft Excel 2010 based on the Sales cube.

Developers will produce reports with SQL Server Reporting Services (SSRS) based on the Sales cube and the reports will be delivered to users through report subscriptions and a web browser.

All users log on to an Active Directory Domain Services (AD DS) domain named contoso.com. All client computers and servers are joined to the contoso.com domain.

Business Requirements

The BI system must meet the following reporting requirements:

- Display all sales figures in euro currency, regardless of the client's reporting location
- Include a new measure named AD Sales that calculates average daily sales for a selected month
- Support near real-time reporting while maintaining good performance for multidimensional queries
- Support reports that show currency exchange rates
- Deliver executive reports that are parameterized and rendered from report snapshots

In addition, cube objects must use terms familiar to users from around the world. For example, in the Sales Regions hierarchy, users from Great Britain must see the State level presented as County when browsing the Sales cube.

The Sales cube must support a new measure group named Sales Planning. The measure group must consist of a single measure named Sales Plan that enables the management team to use Excel 2010 to enter sales plans for future monitoring.

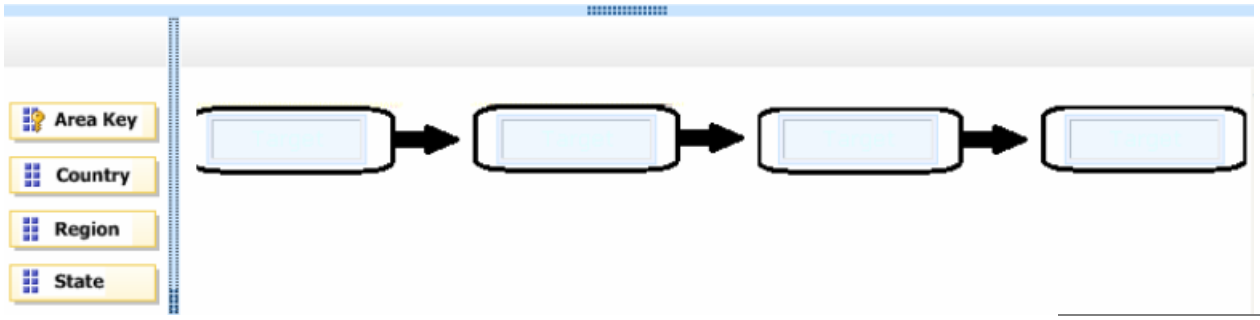
Technical Requirements

The BI system must meet the following technical requirements:

- Architecture requirements
  - The system must use separate servers for each of the following components:
    - SQL Server Database Engine
    - SQL Server Integration Services
    - SQL Server Analysis Services in multidimensional mode
    - SharePoint Server with the Reporting Services Add-in o All servers must be installed using U.S. regional settings.
  - The system must source currency exchange rate data from a database hosted in Windows Azure SQL Databases.
- Security requirements
  - When possible, the system must use Windows authentication for all database connections.
  - The system must prevent users from querying data from outside of their region.
  - The system must allow certain users to query data from multiple regions.
- Development requirements
  - When browsing the Products hierarchy, repeating values for different levels of a given drill-path must be avoided. For example, Papers -> Copy Paper -> Copy Paper -> Copy Paper should appear simply as Papers -> Copy Paper.
  - The system must support report snapshots. The default maximum number of retained snapshots must not exceed five.

Question: 1

DRAG DROP
You need to optimize the Regions dimension.
How should you configure the attribute relationships? (To answer, drag the appropriate attribute from the list of attributes to the correct location in the hierarchy relationship. Use only attributes that apply.)



Answer:

Question: 2

You need to configure per-user security authentication for reporting against the Sales cube.
What should you do? (Each correct answer presents part of the complete solution. Choose all that apply.)

A. Install PowerPivot.
B. Create Service Principal Names (SPNs).
C. Configure account delegation.
D. Set up the Unattended Service Account.

Answer: AB

Explanation:
* From scenario:
/ Administrative staff from around the world will produce sales reports with Microsoft Excel 2010 based on the Sales cube.
/ Security requirements
When possible, the system must use Windows authentication for all database connections.
The system must prevent users from querying data from outside of their region.
The system must allow certain users to query data from multiple regions.
B: To use Kerberos authentication with SQL Server requires both the following conditions to be true:
The client and server computers must be part of the same Windows domain, or in trusted domains.
A Service Principal Name (SPN) must be registered with Active Directory, which assumes the role of the Key Distribution Center in a Windows domain. The SPN, after it is registered, maps to the Windows account that started the SQL Server instance service. If the SPN registration has not been performed or fails, the Windows security layer cannot determine the account associated with the SPN, and Kerberos authentication will not be used.

Question: 3

You need to configure the partition storage settings to support the reporting requirements.
Which partition storage setting should you use?

A. DirectQuery
B. In-Memory
C. MOLAP
D. Low-latency MOLAP
E. Scheduled MOLAP
F. High-latency MOLAP

Answer: D

Question: 4

You need to develop the executive reports.
What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

A. Remove default values from all parameters.
B. Implement dataset query parameters to filter data.
C. Set the data source to use Windows authentication.
D. Set the data source to use stored Windows credentials.
E. Provide default values for all parameters.
F. Implement dataset filters to filter data.

Answer: BDE

Explanation:
* From scenario:
Deliver executive reports that are parameterized and rendered from report snapshots
BD: The data source that the shared dataset is based on has Prompt or Windows Integrated credentials.

Question: 5

You need to modify the Sales Regions hierarchy to meet the reporting requirements.
Which S5A5 feature should you use?

A. Calculation
B. Translation
C. Action
D. Perspective

Answer: B

Question: 6

You need to configure SSRS to meet the maximum number of snapshots requirement.
What should you do? (Each answer presents a complete solution. Choose all that apply.)

A. In SharePoint Central Administration, set the System Snapshot Limit option to 5.

B. In Reporting Services Configuration Manager, set the System Snapshot Limit option to 5.
C. For each report, set the Limit number of snapshots option to 5.
D. Use PowerShell to set the System Snapshot Limit option to 5.

Answer: AC

Explanation:
A: Reporting Services Service Applications are managed from SharePoint Central Administration. The Management and Properties pages allow you to update the configuration of the service application as well as common administration tasks.
Note:
* From scenario: The system must support report snapshots. The default maximum number of retained snapshots must not exceed five.
* System Snapshot Limit
Default is -1, which is no limit.
Set a site-wide default value for the number of copies of report history to retain. The default value provides an initial setting that establishes the number of snapshots that can be stored for each report. You can specify different limits in property pages for specific reports.
Not B: Use the Reporting Services Configuration Manager to configure a Reporting Services Native Mode installation. If you installed a report server by using the files-only installation option, you must use this tool to configure the server before you can use it. If you installed a report server by using the default configuration installation option, you can use this tool to verify or modify the settings that were specified during setup.
Not D: SQL Server 2012 supports Windows PowerShell, which is a powerful scripting shell that lets administrators and developers automate server administration and application deployment.

Question: 7

You need to configure per-user security authentication for reporting against the Sales cube.
What should you do? (Each correct answer presents part of the complete solution. Choose all that apply.)

A. Create Service Principal Names (SPNs).
B. Configure account delegation.
C. Enable forms-based authentication.
D. Enable mixed-mode authentication.

Answer: AD

Explanation:
* From scenario:
/ Administrative staff from around the world will produce sales reports with Microsoft Excel 2010 based on the Sales cube.
/ Security requirements
When possible, the system must use Windows authentication for all database connections.
The system must prevent users from querying data from outside of their region.
The system must allow certain users to query data from multiple regions.
A: To use Kerberos authentication with SQL Server requires both the following conditions to be true:
The client and server computers must be part of the same Windows domain, or in trusted domains.
A Service Principal Name (SPN) must be registered with Active Directory, which assumes the role of the Key Distribution Center in a Windows domain. The SPN, after it is registered, maps to the Windows account that started the SQL Server instance service. If the SPN registration has not been performed or fails, the Windows security layer

cannot determine the account associated with the SPN, and Kerberos authentication will not be used.
D: For windows authentication we need to enable mixed-mode authentication

Question: 8

You need to modify the Sales cube to support the planning requirements.
Which SSA5 feature should you use?

A. At KPI
B. A translation
C. A writeback partition
D. A perspective

Answer: C

Question: 9

You need to configure the UserRegions role.
Which Multidimensional Expressions (MDX) function should you use?

A. ANCESTOR ( )
B. USERNAME ( )
C. FIRSTSIBLING ( )
D. LEAD ( )
E. COUSIN ( )

Answer: B

Question: 10

You need to configure the partition storage settings to support the reporting requirements.
Which partition storage setting should you use?

A. Low-latency MOLAP
B. In-Memory
C. High-latency MOLAP
D. Regular
E. DirectQuery
F. LazyAggregations

Answer: A

Question: 11

You need to develop an SSRS report that retrieves currency exchange rate data.
How should you configure the data source for the report?

A. Use the Windows Azure SQL Database data source type and then set Windows authentication for the credentials.
B. Use the Windows Azure SQL Database data source type and then set a username and password for the credentials.

C. Use the SQL Server data source type and then set a username and password for the credentials.
D. Use the SQL Server data source type and then set Windows authentication for the credentials.

Answer: B

Case Study: 3

Tailspin Toys Case A

Background

You are the business intelligence (BI) solutions architect for Tailspin Toys.

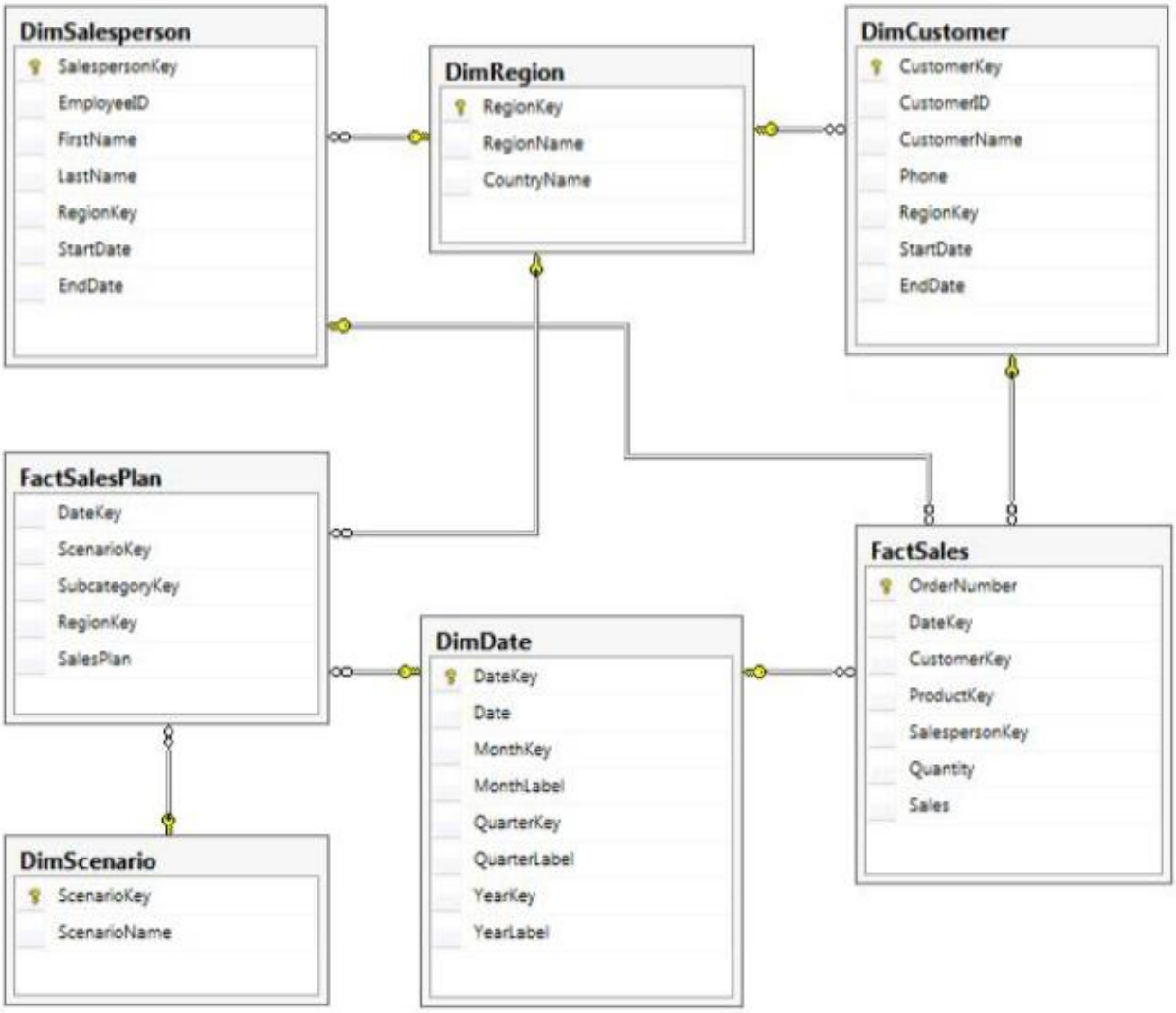
You produce solutions by using SQL Server 2012 Business Intelligence edition and Microsoft SharePoint Server 2010 Service Pack 1 (SP1) Enterprise edition.

Technical Background

Data Warehouse

The data warehouse is deployed on a SQL Server 2012 relational database. A subset of the data warehouse schema is shown in the exhibit. (Click the Exhibit button.)

Data Warehouse Schema



The schema shown does not include the table design for the product dimension.

The schema includes the following tables:

- FactSalesPlan table stores data at month-level granularity. There are two scenarios: Forecast and Budget.
- The DimDate table stores a record for each date from the beginning of the company's operations through to the end of the next year.
- The DimRegion table stores a record for each sales region, classified by country. Sales regions do not relocate to different countries.
- The DimCustomer table stores a record for each customer.
- The DimSalesperson table stores a record for each salesperson. If a salesperson relocates to a different region, a new salesperson record is created to support historically accurate reporting. A new salesperson record is not created if a salesperson's name changes.
- The DimScenario table stores one record for each of the two planning scenarios.

All relationships between tables are enforced by foreign keys. The schema design is as denormalized as possible for

simplicity and accessibility. One exception to this is the DimRegion table, which is referenced by two dimension tables.

Each product is classified by a category and subcategory and is uniquely identified in the source database by using its stock-keeping unit (SKU). A new SKU is assigned to a product if its size changes. Products are never assigned to a different subcategory, and subcategories are never assigned to a different category.

Extract, transform, load (ETL) processes populate the data warehouse every 24 hours.

ETL Processes

One SQL Server Integration Services (SSIS) package is designed and developed to populate each data warehouse table. The primary source of data is extracted from a SQL Azure database. Secondary data sources include a Microsoft Dynamics CRM 2011 on-premises database.

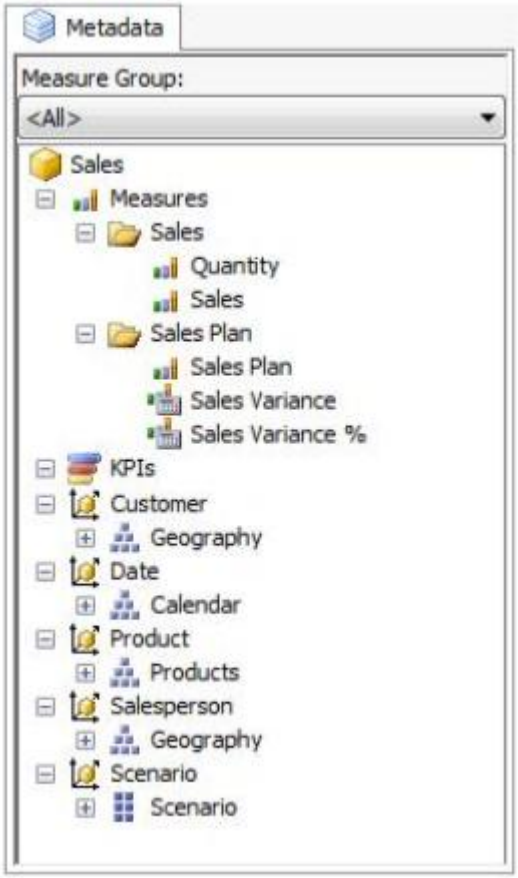
ETL developers develop packages by using the SSIS project deployment model. The ETL developers are responsible for testing the packages and producing a deployment file. The deployment file is given to the ETL administrators. The ETL administrators belong to a Windows security group named SSISOwners that maps to a SQL Server login named SSISOwners.

Data Models

The IT department has developed and manages two SQL Server Analysis Services (SSAS) BI Semantic Model (BISM) projects: Sales Reporting and Sales Analysis. The Sales Reporting database has been developed as a tabular project. The Sales Analysis database has been developed as a multidimensional project. Business analysts use PowerPivot for Microsoft Excel to produce self-managed data models based directly on the data warehouse or the corporate data models, and publish the PowerPivot workbooks to a SharePoint site.

The sole purpose of the Sales Reporting database is to support business user reporting and ad-hoc analysis by using Power View. The database is configured for DirectQuery mode and all model queries result in SSAS querying the data warehouse. The database is based on the entire data warehouse.

The Sales Analysis database consists of a single SSAS cube named Sales. The Sales cube has been developed to support sales monitoring, analysts, and planning. The Sales cube metadata is shown in the following graphic.



Details of specific Sales cube dimensions are described in the following table.

Dimension	Hierarchies and levels	Additional information
Date	Calendar • Year • Quarter • Month • Date	All attributes are hidden. The appropriate dimension and attribute Type properties have been configured.
Salesperson	Geography • Country • Region • Salesperson	Based on the DimSalesperson and DimRegion tables. All attributes are hidden.
Scenario	Scenario (attribute hierarchy) • Scenario	Current hierarchy level is All. All contains Budget and Forecast.

The Sales cube dimension usage is shown in the following graphic.

Dimensions	Measure Groups: Sales	Measure Groups: Sales Plan
Date	Date	Month
Customer	Customer	
Salesperson	Salesperson	Region
Product	Product	Subcategory
Scenario		Scenario

The Sales measure group is based on the FactSales table. The Sales Plan measure group is based on the FactSalesPlan table. The Sales Plan measure group has been configured with a multidimensional OLAP (MOLAP) writeback partition. Both measure groups use MOLAP partitions, and aggregation designs are assigned to all partitions. Because the volumes of data in the data warehouse are large, an incremental processing strategy has been implemented.

The Sales Variance calculated member is computed by subtracting the Sales Plan forecast amount from Sales. The Sales Variance °/o calculated member is computed by dividing Sales Variance by Sales. The cube's Multidimensional Expressions (MDX) script does not set any color properties.

Analysis and Reporting

SQL Server Reporting Services (SSRS) has been configured in SharePoint integrated mode.

A business analyst has created a PowerPivot workbook named Manufacturing Performance that integrates data from the data warehouse and manufacturing data from an operational database hosted in SQL Azure. The workbook has been published in a PowerPivot Gallery library in SharePoint Server and does not contain any reports. The analyst has scheduled daily data refresh from the SQL Azure database. Several SSRS reports are based on the PowerPivot workbook, and all reports are configured with a report execution mode to run on demand.

Recently users have noticed that data in the PowerPivot workbooks published to SharePoint Server is not being refreshed. The SharePoint administrator has identified that the Secure Store Service target application used by the PowerPivot unattended data refresh account has been deleted.

Business Requirements

ETL Processes

All ETL administrators must have full privileges to administer and monitor the SSIS catalog, and to import and manage projects.

Data Models

The budget and forecast values must never be accumulated when querying the Sales cube. Queries should return the forecast sales values by default.

Business users have requested that a single field named SalespersonName be made available to report the full name of the salesperson in the Sales Reporting data model.

Writeback is used to initialize the budget sales values for a future year and is based on a weighted allocation of the sales achieved in the previous year.

Analysis and Reporting

Reports based on the Manufacturing Performance PowerPivot workbook must deliver data that is no more than one hour old.

Management has requested a new report named Regional Sales. This report must be based on the Sales cube and must allow users to filter by a specific year and present a grid with every region on the columns and the Products hierarchy on the rows. The hierarchy must initially be collapsed and allow the user to drill down through the hierarchy to analyze sales. Additionally, sales values that are less than S5000 must be highlighted in red.

Technical Requirements

Data Warehouse

Business logic in the form of calculations should be defined in the data warehouse to ensure consistency and availability to all data modeling experiences.

The schema design should remain as denormalized as possible and should not include unnecessary columns.

The schema design must be extended to include the product dimension data.

ETL Processes

Package executions must log only data flow component phases and errors.

Data Models

Processing time for all data models must be minimized.

A key performance indicator (KPI) must be added to the Sales cube to monitor sales performance. The KPI trend must use the Standard Arrow indicator to display improving, static, or deteriorating Sales Variance % values compared to the previous time period.

Analysis and Reporting

IT developers must create a library of SSRS reports based on the Sales Reporting database. A shared SSRS data source named Sales Reporting must be created in a SharePoint data connections library.

Question: 1

You need to fix the PowerPivot data refresh problem by using the least amount of administrative effort.
What should you do?

A. Use the PowerPivot Configuration Tool and select the Upgrade Features, Services, Applications and Solutions option.
B. Use the PowerPivot Configuration Tool and select the Configure or Repair PowerPivot for SharePoint option.
C. Reinstall SSAS in PowerPivot for SharePoint mode by using the SQL Server 2012 installation media.

D. In SharePoint Central Administration, create a target application and configure the PowerPivot service application settings to use the target application.

Answer: B

Question: 2

You need to grant appropriate permissions to the SSISOwners SQL Server login.
What should you do?

A. Map the login to the SSISDB database. Assign the user to the ssis_admin role.
B. Map the login to the msdb database. Assign the user to the db_owner role.
C. Map the login to the msdb database. Assign the user to the db_ssisadmin role.
D. Map the login to the SSISDB database. Assign the user to the db_ssisadmin role.
E. Map the login to the SSISDB database. Assign the user to the db_owner role.
F. Map the login to the msdb database. Assign the user to the ssis_admin role.

Answer: D

Question: 3

You need to configure the Scenario attribute to ensure that business users appropriately query the Sales Plan measure.
What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

A. Set the AttributeHierarchyVisible property to False.
B. Set the IsAggregatable property to False.
C. Set the Usage property to Parent.
D. set the DefaultMember property to the Forecast member.
E. Set the AttributeHierarchyEnabled property to False.
F. Set the RootMemberIf property to ParentIsMissing.

Answer: C, D

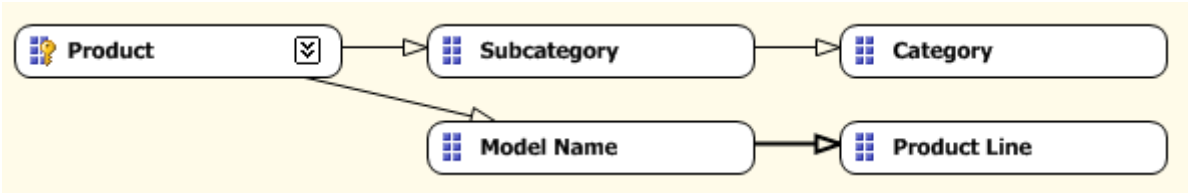
Explanation:
The Sales measure group is based on the FactSales table. The Sales Plan measure group is based on the FactSalesPlan table. The Sales Plan measure group has been configured with a multidimensional OLAP (MOLAP) writeback partition. Both measure groups use MOLAP partitions, and aggregation designs are assigned to all partitions.

Question: 4

DRAG DROP
You need to configure the attribute relationship types for the Salesperson dimension.
Which configuration should you use?
To answer, drag the appropriate pair of attributes and attribute relationships from the list to the correct location or locations in the answer area. (Answer choices may be used once, more than once, or not all.)

Answer:

Explanation:
Note:
You connect a “higher-level” attribute to a “lower-level” attribute.
Best practice design says relationships should be rigid (bold filled lines) when members aren’t shifting around.
Example:



Question: 5

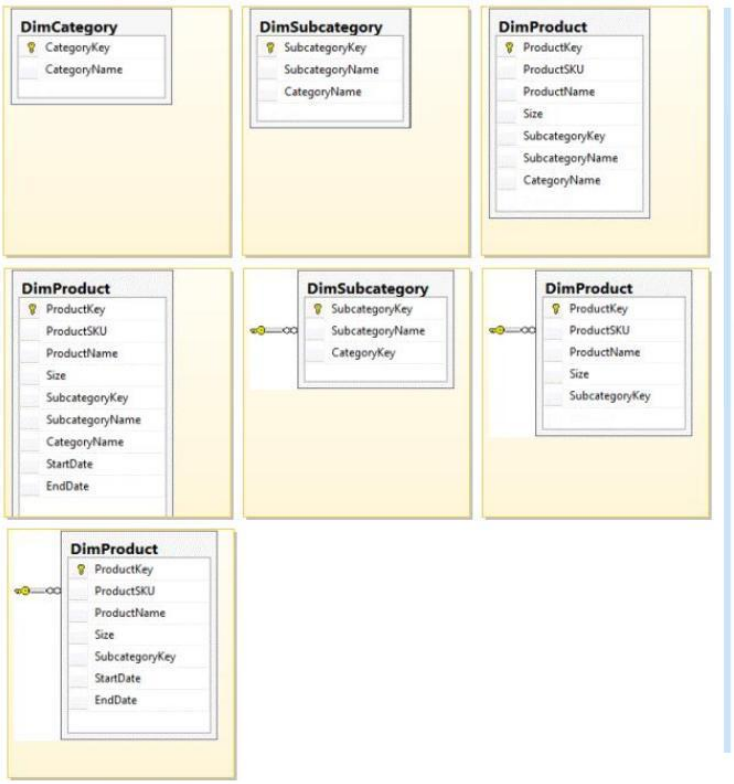
You need to define the trend calculation for the sales performance KPI.
Which KPI trend MDX expression should you use?

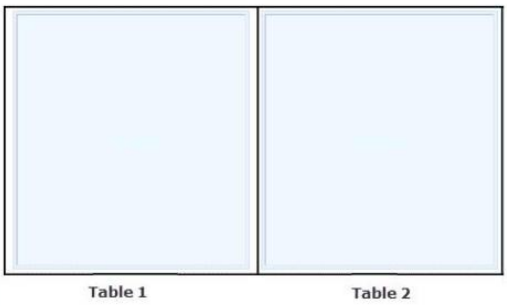
A. CASE
WHEN [Sales Variance %] < ([Sales Variance %], [Date].[Calendar].PrevMember) THEN -1 WHEN [Sales Variance %] = ([Sales Variance %], [Date].[Calendar].PrevMember) THEN 0 ELSE 1 END
B. IIF([Sales Variance %3 < ([Sales Variance %], [Date].[Calendar].PrevMember), 1, 0)
C. IIF([Sales Variance %] < ([Sales Variance %], [Date].[Calendar].PrevMember), 0, 1)
D. CASE
WHEN [Sales Variance %] < ([Sales Variance %], [Date].[Calendar].PrevMember) THEN 1 WHEN [Sales Variance %] = ([Sales Variance %], [Date].[Calendar].PrevMember) THEN 0 ELSE -1
END

Answer: A

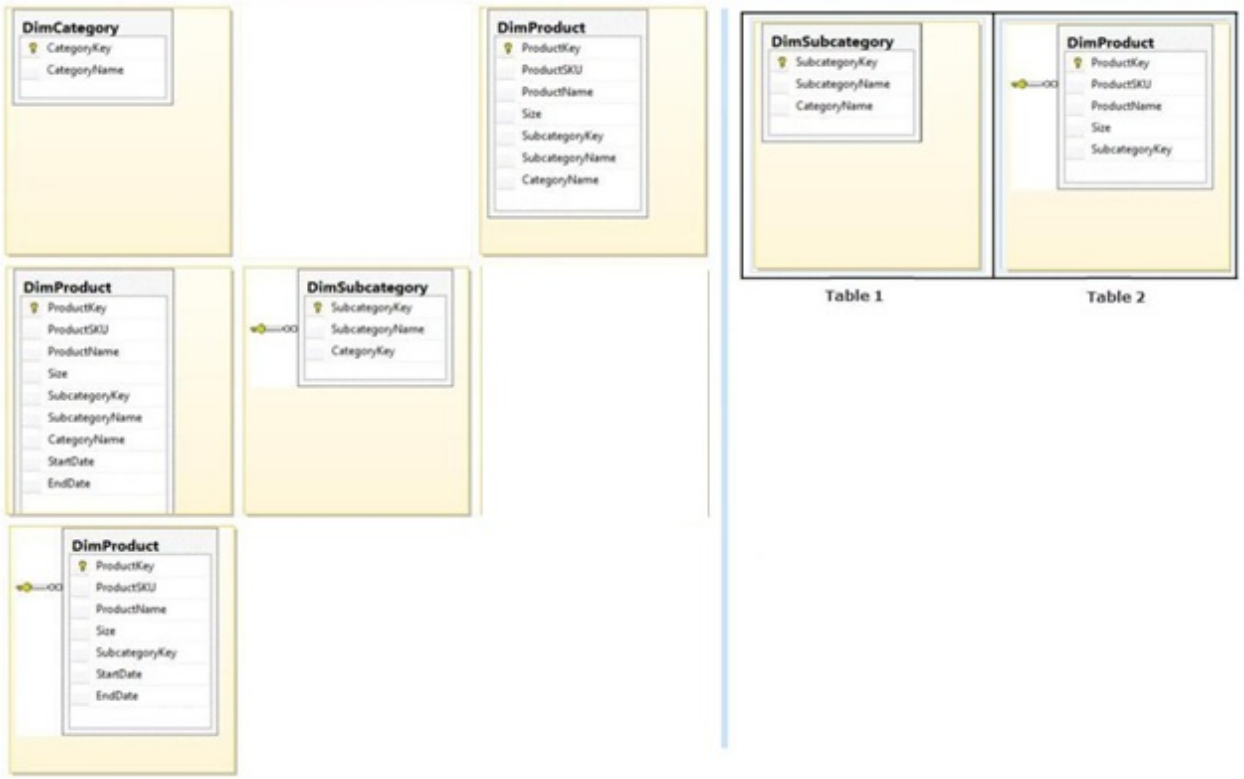
Question: 6

DRAG DROP
You need to extend the schema design to store the product dimension data.
Which design should you use?
To answer, drag the appropriate table or tables to the correct location or locations in the answer area. (Fill from left to right. Answer choices may be used once, more than once, or not all.)





Answer:



Explanation:
/ The schema design must be extended to include the product dimension data.
* DimProduct table need to contain a foreign key to the DimSubCategory table. No further SubCategory data should be stored in the DimProduct table.
* No time related columns (StartDate, EndDate) should be included in the DimProduct table.

Question: 7

You need to configure package execution logging to meet the requirements.
What should you do?

A. Configure logging in each ETL package to log the OnError, OnInformation, and Diagnostic events.
B. Set the SSIS catalog's Server-wide Default Logging Level property to Performance.
C. Set the SSIS catalog's Server-wide Default Logging Level property to Basic.
D. Set the SSIS catalog's Server-wide Default Logging Level property to Verbose.
E. Configure logging in each ETL package to log the OnError, OnPreExecute, and OnPostExecute events.

Answer: B

Question: 8

You need to create the Sales Reporting shared SSRS data source.
Which SSRS data connection type should you use?

A. OData
B. Microsoft SQL Server
C. ODBC

D. OLE DB

Answer: B

Question: 9

You need to select an appropriate tool for creating the Regional Sales report.
Which tool or tools should you use? (Each correct answer presents a complete solution. Choose all that apply.)

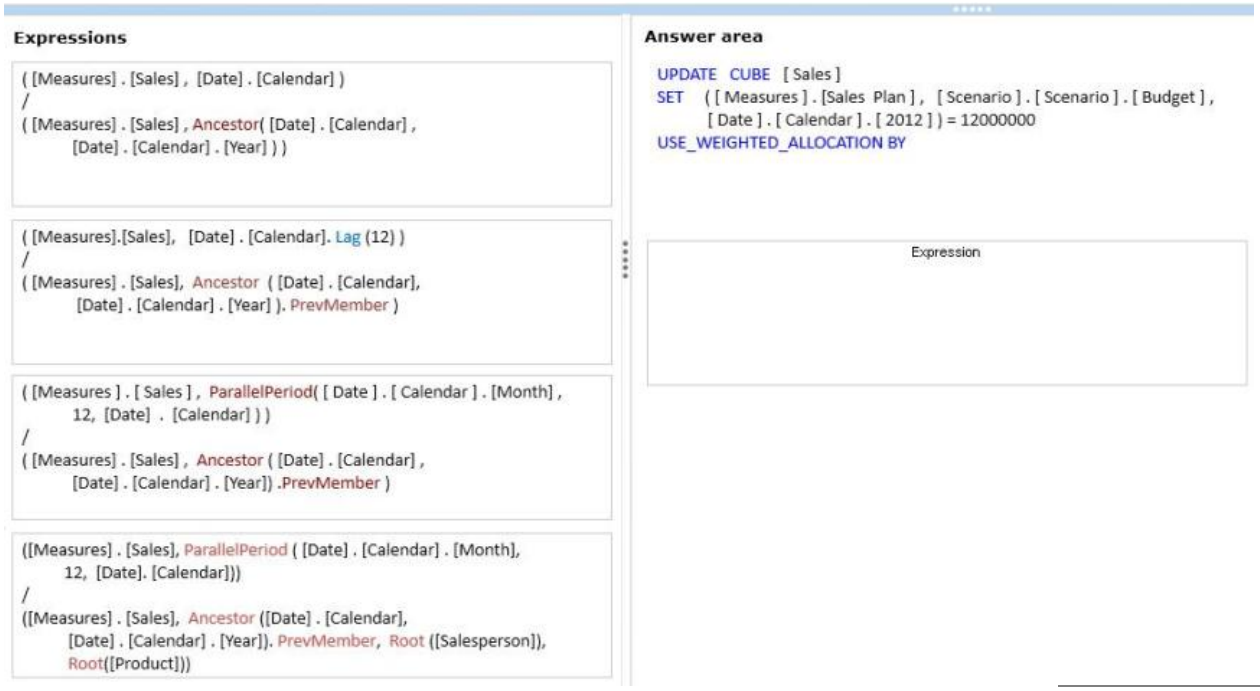
A. Excel 2010, using the CUBE functions
B. Power View, using a Matrix
C. Excel 2010, using a PivotTable
D. Report Builder, using a Matrix

Answer: B, C, D

Explanation:
B: Working with a matrix in Power View
A matrix is a type of visualization that is similar to a table in that it is made up of rows and columns. However, a matrix can be collapsed and expanded by rows and/or columns. If it contains a hierarchy, you can drill down/drill up.
C: Using an Excel Pivot Table, connecting to the Cube, will give you the option to drill down the cube. Using conditional formatting you can highlight specific value ranges.
D: Matrices provide functionality similar to crosstabs and pivot tables. At run time, as the report data and data regions are combined, a matrix grows horizontally and vertically on the page. Values in matrix cells display aggregate values scoped to the intersection of the row and column groups to which the cell belongs. You can format the rows and columns to highlight the data you want to emphasize. You can also include drilldown toggles that initially hide detail data; the user can then click the toggles to display more or less detail as needed.
* From scenario:
Management has requested a new report named Regional Sales. This report must be based on the Sales cube and must allow users to filter by a specific year and present a grid with every region on the columns and the Products hierarchy on the rows. The hierarchy must initially be collapsed and allow the user to drill down through the hierarchy to analyze sales. Additionally, sales values that are less than $5000 must be highlighted in red.

Question: 10

DRAG DROP
You need to complete the following UPDATE statement to initialize the budget sales values for 2012.
Which MDX weight value expression should you use?
To answer, drag the appropriate weight value expression to the answer area.



Answer:

Answer area

```
UPDATE CUBE [ Sales ]
SET ( [ Measures ] . [Sales Plan ] , [ Scenario ] . [ Scenario ] . [ Budget ] ,
[ Date ] . [ Calendar ] . [ 2012 ] ) = 12000000
USE_WEIGHTED_ALLOCATION BY
```

```
([Measures] . [Sales], ParallelPeriod ( [Date] . [Calendar] . [Month],
12, [Date]. [Calendar]))
/
([Measures] . [Sales], Ancestor ([Date] . [Calendar],
[Date] . [Calendar] . [Year]). PrevMember, Root ([Salesperson]),
Root([Product]))
```

Question: 11

You need to select an appropriate tool for creating the Regional Sales report.
Which tools or tools should you use? (Each correct answer presents a complete solution. Choose all that apply.)

A. Power View, using a table configured for vertical multiples
B.Excel 2010, using a PivotTable
C.Report Builder, using a Matrix
D.Power View, using a table configured for horizontal multiples

Answer: B, C

Question: 12

You need to create the calculation for SalespersonName.
What should you do? (Each correct answer presents a complete solution. Choose all that apply.)

A. Create a computed column in the data warehouse's DimSalesperson table. Include the column in the Sales

Reporting model's Salesperson table.
B.Modify the data warehouse's DimSalesperson table and add a new column. Use an UPDATE statement to populate the new column with values. Update the SSIS package developed to populate the data warehouse's DimSalesperson table to use a Derived Column transformation to produce the calculation.
C.Configure the Sales Reporting model's Salesperson table properties to be based on a query. Define a derived column in the query.
D.Add a calculated column to the Sales Reporting model's Salesperson table by using the Data Analysis Expressions (DAX) language CONCATENATE function.
E.Create a view in the data warehouse that defines a derived column based on the DimSalesperson table. Base the Sales Reporting model's Salesperson table on the view. Include the column in the Sales Reporting model's Salesperson table.
F.Add a calculated column to the Sales Reporting model's Salesperson table by using the Data Analysis Expressions (DAX) language ADDCOLUMNS function.

Answer: B, E

Question: 13

You need to configure data refresh for the Manufacturing Performance PowerPivot workbook.
What should you do? (Each correct answer presents part of the solution. Choose ail that apply.)

A. Configure the PowerPivot Data Refresh Timer Job to run every 60 minutes.
B.Restore the PowerPivot workbook to an SSAS instance in tabular mode.
C.Script a process command and configure a SQL Server Agent job to execute the command every 60 minutes.
D.Restore the PowerPivot workbook to an SSAS instance in PowerPivot for SharePoint mode.

Answer: A

Case Study: 4

Contoso, Ltd Case A

General Background

You are the SQL Server Administrator for Contoso, Ltd. You have been tasked with upgrading all existing SQL Server instances to SQL Server 2012.

Technical Background

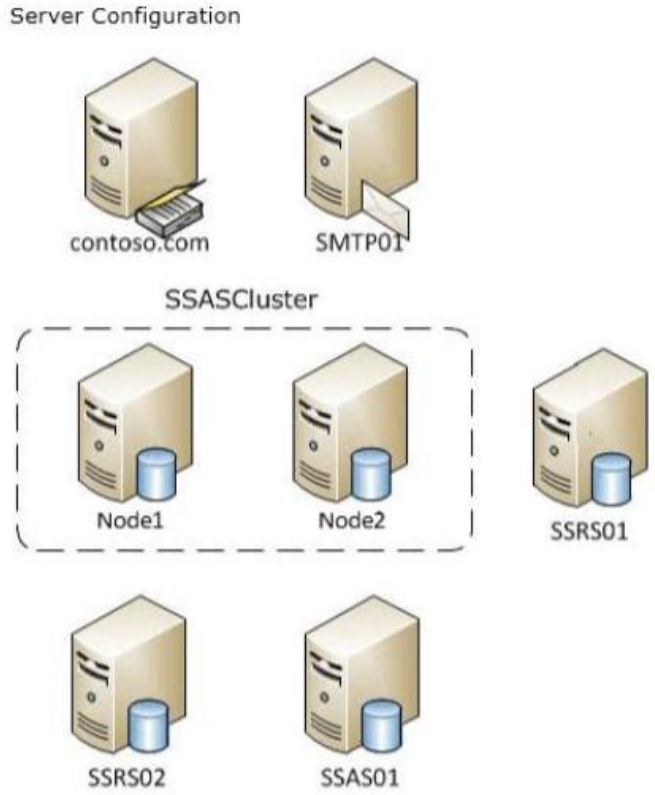
The corporate environment includes an Active Directory Domain Services (AD DS) domain named contoso.com. The forest and domain levels are set to Windows Server 2008. All default containers are used for computer and user accounts. All servers run Windows Server 2008 R2 Service Pack 1 (SP1). All client computers run Windows 7 Professional SP1. All servers and client computers are members of the contoso.com domain.

The current SQL Server environment consists of a single instance failover cluster of SQL Server 2008 R2 Analysis Services (SSAS). The virtual server name of the cluster is SSASCluster. The cluster includes two nodes: Node1 and Node2. Node1 is currently the active node. In anticipation of the upgrade, the prerequisites and shared components have been upgraded on both nodes of the cluster, and each node was rebooted during a weekly maintenance window.

A single-server deployment of SQL Server 2008 R2 Reporting Services (SSRS) in native mode is installed on a server named SSRS01. The Reporting Server service is configured to use a domain service account. SSRS01 hosts reports that access the SSAS databases for sales data as well as modeling data for the Research team. SSRS01 contains 94 reports used by the organization. These reports are generated continually during business hours. Users report that report subscriptions on SSRS01 are not being delivered. You run the reports on demand from Report Manager and find that the reports render as expected.

A new server named SSRS02 has been joined to the domain, SSRS02 will host a single-server deployment of SSRS so that snapshots of critical reports are accessible during the upgrade.

The server configuration is shown in the exhibit. (Click the Exhibit button.)



The production system includes three SSAS databases that are described in the following table.

Database name	Size
Customer Sales	350 MB
Manufacturing	1.2 GB
Research	620 MB

All SSAS databases are backed up once a day, and backups are stored offsite.

Business Requirements

After the upgrade users must be able to perform the following tasks:

- Ad-hoc analysis of data in the SSAS databases by using the Microsoft Excel PivotTable client.

- Daily operational analysis by executing a custom application that uses ADOMD.NET and existing Multidimensional Expressions (MDX) queries.

The detailed data must be stored in the model.

Technical Requirements

You need to minimize downtime during the SSASCluster upgrade. The upgrade must minimize user intervention and administrative effort.

The upgrade to SQL Server 2012 must maximize the use of all existing servers, require the least amount of administrative effort, and ensure that the SSAS databases are operational as soon as possible.

You must implement the highest level of domain security for client computers connecting to SSRS01. The SSRS instance on SSRS01 must use Kerberos delegation to connect to the SSAS databases. Email notification for SSRS01 has not been previously configured. Email notification must be configured to use the SMTP server SMTP01 with a From address of reports@contoso.com. Report distribution must be secured by using SSL and must be limited to the contoso.com domain.

You have the following requirements for SSRS02:

- Replicate the SSRS01 configuration.
- Ensure that all current reports are available on SSRS02.
- Minimize the performance impact on SSR501.

In preparation for the upgrade, the SSRS-related components have been installed on the new SSRS02 server by using the Reporting Services file-only installation mode. The Reporting Services databases have been restored from SSRS01 and configured appropriately.

You must design a strategy to recover the SSRS instance on SSRS01 in the event of a system failure. The strategy must ensure that SSRS can be recovered in the minimal amount of time and that reports are available as soon as possible. Only functional components must be recovered.

SSRS02 is the recovery server and is running the same version of SSRS as SSRS01. A full backup of the SSRS databases on SSRS01 is performed nightly. The report server configuration files, custom assemblies, and extensions on SSRS02 are manually synchronized with SSRS01.

Prior to implementing the upgrade to SQL Server 2012, you must back up all existing SSAS databases.

Databases on SSRS01 is performed nightly. The report server configuration files, custom assemblies, and extensions on SSRS02 are manually synchronized with SSRS01.

Prior to implementing the upgrade to SQL Server 2012, you must back up all existing SSAS databases. The backup must include only the partitioning, metadata, and aggregations to minimize the processing time required when restoring the databases. You must minimize processing time and the amount of disk space used by the backups.

Before upgrading SSAS on the SSASCluster, all existing databases must be moved to a temporary staging server named SSAS01 that hosts a default instance of SQL Server 2012 Analysis Services. This server will be used for testing client applications connecting to SSAS 2012, and as a disaster recovery platform during the upgrade. You must move the databases by using the least amount of administrative effort and minimize downtime.

All SSAS databases other than the Research database must be converted to tabular BI Semantic Models (BISMs) as part of the upgrade to SSAS 2012. The Research team must have access to the Research database for modeling throughout the upgrade. To facilitate this, you detach the Research database and attach it to SSAS01.

While testing the Research database on SSAS01, you increase the compatibility level to 1100. You then discover a compatibility issue with the application. You must roll back the compatibility level of the database to 1050 and retest.

After completing the upgrade, you must do the following:

1. Design a role and assign an MDX expression to the Allowed member set property of the Customer dimension to allow sales representatives to browse only members of the Customer dimension that are located in their sales regions. Use the sales representatives' logins and minimize impact on performance.

2. Deploy a data model to allow the ad-hoc analysis of data. The data model must be cached and source data from an OData feed.

Question: 1

You need to configure security for the SSRS instance on SSRS01 to connect to SSAS and minimize downtime.
What should you do? (Each correct answer presents part of the solution. Choose all that apply.)

A. Register a service principal name for the Report Server service.
B. Register a service principal name for the Analysis Services service.
C. Restart the IIS service.
D. Configure SSRS01 to use the Negotiate authentication type.
E. Configure SSRS01 to use the Custom authentication type.

Answer: A, D

Explanation:
A (not B): If you are deploying Reporting Services in a network that uses the Kerberos protocol for mutual authentication, you must create a Service Principal Name (SPN) for the Report Server service if you configure it to run as a domain user account.
D (not E):
* See step 6 below.
To register an SPN for a Report Server service running as a domain user
1. Install Reporting Services and configure the Report Server service to run as a domain user account. Note that users will not be able to connect to the report server until you complete the following steps.
2. Log on to the domain controller as domain administrator.
3. Open a Command Prompt window.
4. Copy the following command, replacing placeholder values with actual values that are valid for your network:
5. Setspn -a http/<computer-name>.<domain-name>:<port><domain-user-account>
6. Run the command.
7. Open the RsReportServer.config file and locate the <AuthenticationTypes> section. Add <RSWindowsNegotiate/> as the first entry in this section to enable NTLM.
* RSWindowsNegotiate. If you initially set the Windows service account for the report server to NetworkService or LocalSystem in Reporting Services Configuration Manager, RSWindowsNegotiate is added to the RSReportServer.config file as the default setting. With this setting, the report server can accept requests from client applications requesting Kerberos or NTLM authentication. If Kerberos is requested and the authentication fails, the

report server switches to NTLM authentication and prompts the user for credentials unless the network is configured to manage authentication transparently.
Using RSWindowsNegotiate is your best option because it provides the greatest flexibility for multiple clients in an intranet environment.
Not C: IIS is not mention in this scenario.
Note:
* From scenario:
/ A single-server deployment of SQL Server 2008 R2 Reporting Services (SSRS) in native mode is installed on a server named SSRS01. The Reporting Server service is configured to use a domain service account.
Reference: Register a Service Principal Name (SPN) for a Report Server

Question: 2

You need to perform the pre-upgrade database backup operation by using SQL Server Management Studio (SSMS).
How should you configure the backup options?

A. Select the Apply compression check box. Select the Encrypt backup file check box and supply a password.
B. Clear the Apply compression check box. Select the Encrypt backup file check box and supply a password.
C. Clear the Apply compression check box. Clear the Encrypt backup file check box.
D. Select the Apply compression check box. Clear the Encrypt backup file check box.

Answer: D

Question: 3

You need to implement the Customer Sales and Manufacturing data models.
What should you do? (Each correct answer presents a partial solution. Choose all that apply.)

A. Use the Database Synchronization Wizard to upgrade the database to tabular mode.
B. Use SQL Server Integration Services (SSIS) to copy the database design to the SSAS instance, and specify tabular mode as the destination.
C. Use SQL Server Data Tools (SSDT) to redevelop and deploy the projects.
D. Use the current SSAS instance.
E. Install a new instance of SSAS in tabular mode.

Answer: C, E

Explanation:
C: Tabular models are authored in SQL Server Data Tools (SSDT) using new tabular model project templates. You can import data from multiple sources, and then enrich the model by adding relationships, calculated columns, measures, KPIs, and hierarchies. Models can then be deployed to an instance of Analysis Services where client reporting applications can connect to them. Deployed models can be managed in SQL Server Management Studio just like multidimensional models. They can also be partitioned for optimized processing and secured to the row-level by using role based security.
E: If you are installing Analysis Services to use the new tabular modeling features, you must install Analysis Services in a server mode that supports that type of model. The server mode is Tabular, and it is configured during installation.
After you install the server in this mode, you can use it host solutions that you build in tabular model designer. A tabular mode server is required if you want tabular model data access over the network.
* From scenario:
/ Deploy a data model to allow the ad-hoc analysis of data. The data model must be cached and source data from an

OData feed.
/ All SSAS databases other than the Research database must be converted to tabular BI Semantic Models (BISMs) as part of the upgrade to SSAS 2012. The Research team must have access to the Research database for modeling throughout the upgrade. To facilitate this, you detach the Research database and attach it to SSAS01.
* The Business Intelligence Semantic Model (BISM) is a single unified BI platform which has both multi-dimensional as well as tabular data modeling capabilities to offer best of both worlds and choice for the developer.
Reference: Install Analysis Services in Tabular Mode
Reference: Tabular Modeling (SSAS Tabular)

Question: 4

You need to re-establish subscriptions on SSRS01.
What should you do?

A. Manually failover the active node.
B. Install prerequisites and upgrade shared components on Node1 and Node2.
C. Generate a SQL Server 2012 configuration file by running the SQL Server Setup executable.
D. Upgrade Node1 by using the SQL Server 2012 Upgrade wizard.

Answer: A

Explanation:
SSRS reports are scheduled by **SQL server Agent jobs.**
Start the SQL Server Agent on SSRS01.

Question: 5

You need to roll back the compatibility level of the Research database.
What should you do?

A. Restore a backup of the previous version of the database.
B. Use an ALTER DATABASE statement to set the compatibility option.
C. Change the CompatibilityLevel property in the XMLA script, and then execute the script.
D. In SQL Server Management Studio (SSMS), change the compatibility level in the database properties.

Answer: A

Question: 6

You need to develop a BISM that meets the business requirements for ad-hoc and daily operational analysis. You must minimize development effort.
Which development approach and mode should you use?

A. Develop a tabular project and configure the model with the DirectQuery mode setting on and the project query mode set to DirectQuery.
B. Develop a tabular project and configure the model with the DirectQuery mode setting on and the project query mode set to In-Memory with DirectQuery.
C. Develop a multidimensional project and configure the model with the DirectQuery mode setting off.
D. Develop a multidimensional project and configure the cube to use hybrid OLAP (HOLAP) storage mode.

Answer: C

Explanation:
/ After the upgrade users must be able to perform the following tasks:
/ Ad-hoc analysis of data in the SSAS databases by using the Microsoft Excel PivotTable client (which uses MDX).
/ Daily operational analysis by executing a custom application that uses ADOMD.NET and existing Multidimensional Expressions (MDX) queries.
/ Deploy a data model to allow the ad-hoc analysis of data. The data model must be cached and source data from an OData feed.
We cannot use DirectQuery mode so C is the only answer that will provide the required caching.
When a model is in DirectQuery mode, it can only be queried by using DAX. You cannot use MDX to create queries. This means that you cannot use the Excel Pivot Client, because Excel uses MDX.

Question: 7

You need to use SQL Server Management Studio (SSMS) to make the SSAS databases available for application testing.
What should you do?

A. Restore the SSAS databases from the latest backup to SSAS01.
B. Script the databases as a Create script to a new window and then execute the script on SSAS01.
C. Detach the SSAS databases from the SSASCluster, and then attach them to SSAS01.
D. Use the Import/Export Wizard to copy the databases from the production server to the development server.

Answer: A

Question: 8

You need to configure SSRS to send the required notification messages.
Which configuration settings should you use? (Each correct answer presents a partial solution. Choose all that apply.)

A. <SendUsing>2</SendUsing>
B. <SendUsing>contoso.com</SendUsing>
C. <SMTPServer>SMTP01/SMTPServer>
D. <SMTPServerPort>110</SMTPServerPort>
E. <SMTPServer>SSRS01/SMTPServer>
F. <From>reports@contoso.com</From>
G. <PermittedHosts>contoso.com</PermittedHosts>

Answer: A, C, F, G

Explanation:
A:
* In the configuration file, the delivery method is set through the SendUsing configuration setting.
* SendUsing specifies a method for sending messages. You can choose between a network SMTP service or a local SMTP service pickup directory. To use a remote SMTP service, this value must be set to 2 in the RSReportServer.config file.
C, F:
* From scenario: Email notification for SSRS01 has not been previously configured. Email notification must be configured to use the SMTP server SMTP01 with a From address of reports@contoso.com.
* SMTPServer specifies the remote SMTP server or forwarder. This value is a required value if you are using a remote

SMTP server or forwarder.
G:
* From scenario: Report distribution must be secured by using SSL and must be limited to the contoso.com domain.
Note:
Configuration Options for Remote SMTP Service
The connection between the report server and an SMTP server or forwarder is determined by the following configuration settings:
* SendUsing specifies a method for sending messages. You can choose between a network SMTP service or a local SMTP service pickup directory. To use a remote SMTP service, this value must be set to 2 in the RSReportServer.config file.
* SMTPServer specifies the remote SMTP server or forwarder. This value is a required value if you are using a remote SMTP server or forwarder.
* From sets the value that appears in the From: line of an e-mail message. This value is a required value if you are using a remote SMTP server or forwarder.
Other values that are used for remote SMTP service include the following (note that you do not need to specify these values unless you want to override the default values).
* SMTPServerPort is configured for port 25.
* SMTPAuthenticate specifies how the report server connects to the remote SMTP server.
Reference: Configure a Report Server for E-Mail Delivery (Reporting Services), Configuration Options for Remote SMTP Service

Question: 9

DRAG DROP
You need to upgrade the SSASCluster.
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.)

Install prerequisites and upgrade shared components on Node1 and Node2.

Upgrade Node1 by using the SQL Server 2012 Upgrade Wizard.

Upgrade Node2 by using the SQL Server 2012 Upgrade Wizard.

Upgrade Node2 from the command prompt by using a configuration file. Specify the **/ FAILOVERCLUSTERROLLOWNERS HIP=1** option.

Upgrade Node2 from the command prompt by using a configuration file. Specify the **/ FAILOVERCLUSTERROLLOWNERS HIP=0** option.

Manually failover the active node.

Generate a SQL Server 2012 configuration file by running the SQL Server Setup executable.

Upgrade Node1 from the command prompt by using a configuration file.

Answer:

Box 1:

Generate a SQL Server 2012 configuration file by running the SQL Server Setup executable.

Box 2:

Upgrade Node2 from the command prompt by using a configuration file. Specify the **/ FAILOVERCLUSTERROLLOWNERS HIP=1** option.

Box 3:

Upgrade Node1 from the command prompt by using a configuration file.

Explanation:

Note:

* From scenario:

/ The current SQL Server environment consists of a single instance failover cluster of SQL Server 2008 R2 Analysis Services (SSAS). The virtual server name of the cluster is SSASCluster. The cluster includes two nodes: Node1 and Node2. Node1 is currently the active node. In anticipation of the upgrade, the prerequisites and shared components have been upgraded on both nodes of the cluster, and each node was rebooted during a weekly maintenance window.

The upgrade must minimize user intervention and administrative effort. So we'll upgrade using the scripted method

rather than the GUI method.
* (box 1)
/ SQL Server Setup provides the ability to generate a configuration file based upon the system default and run-time inputs. You can use the configuration file to deploy SQL Server throughout the enterprise with the same configuration. You can also standardize manual installations throughout the enterprise, by creating a batch file that launches Setup.exe.
/ How to generate a configuration file
Insert the SQL Server installation media. From the root folder, double-click Setup.exe. To install from a network share, locate the root folder on the share, and then double-click Setup.exe.
Follow the wizard through to the Ready to Install page. The path to the configuration file is specified in the Ready to Install page in the configuration file path section. For more information about how to install SQL Server, see Install SQL Server 2012 from the Installation Wizard (Setup).
Cancel the setup without actually completing the installation, to generate the INI file.
* (box 2) First upgrade the passive node node2.
To be able to use the configuration file we use the command prompt. After the upgrade, the cluster will fail over to the upgraded node.
*(Box 3) upgrade Node1 (which is now the passive node)
.
* You can upgrade a SQL Server failover cluster to a SQL Server 2008 failover cluster by using the SQL Server Installation Wizard or a command prompt. One of the main features of SQL Server 2008 failover clustering is minimal downtime for rolling upgrades and updates.
* To control the failover behavior of cluster nodes during the upgrade process, run the upgrade operation at the command prompt and use the /FAILOVERCLUSTERROLLOWNERSHIP parameter.
* To upgrade a SQL Server failover cluster to SQL Server 2008 R2, you must run the Setup on one failover cluster node at a time, starting with the passive nodes. Setup determines when to fail over to the upgraded node, depending on the total number of nodes in the failover cluster instance, and the number of nodes that have already been upgraded. When half of the nodes or more have already been upgraded, Setup by default will cause a failover to an upgraded node.
To control the failover behavior of cluster nodes during the upgrade process, run the upgrade operation at the command prompt and use the /FAILOVERCLUSTERROLLOWNERSHIP parameter to control the failover behavior before the upgrade operation takes the node offline. Use of this parameter is as follows:
/FAILOVERCLUSTERROLLOWNERSHIP=0 will not roll cluster ownership (move group) to upgraded nodes, and does not add this node to the list of possible owners of the SQL Server cluster at the end of upgrade.
/FAILOVERCLUSTERROLLOWNERSHIP=1 will roll cluster ownership (move group) to upgraded nodes, and will add this node to the list of possible owners of the SQL Server cluster at the end of upgrade.
/FAILOVERCLUSTERROLLOWNERSHIP=2 is the default setting. It will be used if this parameter is not specified. This setting indicates that SQL Server Setup will manage cluster ownership (move group) as needed.
Reference: Install SQL Server 2012 Using a Configuration File
Reference: How to: Install SQL Server 2008 R2 from the Command Prompt

Question: 10

You need to implement the security requirement for the sales representatives.
Which MDX expression should you use?

A.
```
Exists([Customer].[Customer Number].Members, StrToMember("[Employees].[Login].&[" +
Username + "]"), "Security Filter")
```

B.
```
NonEmpty([Customer].[Customer Number].Members + StrToMember("[Employees].[Login].&["
+ Username + "]")
```

C.
```
NonEmpty([Customer].[Customer Number].Members, (StrToMember("[Employees].[Login].&["
+ Username + "]"), Measures.[Security Filter Count]))
```

D.
```
Exists([Customer].[Customer Number].Members + StrToMember("[Employees].[Login].&[" +
Username + "]")
```

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

Answer: A

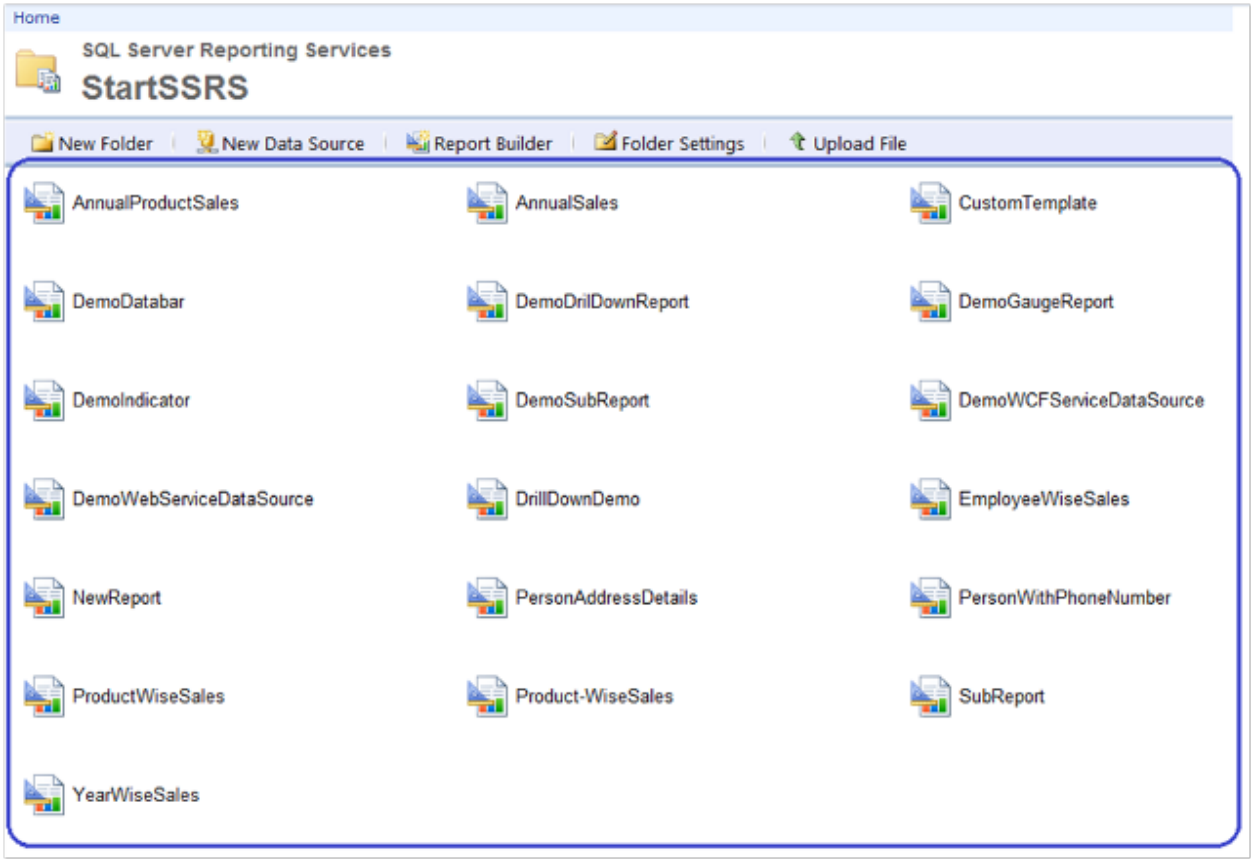
Question: 11

You need to use Reporting Services Configuration Manager to configure SSRS to complete the installation on SSRS02. What should you do? (Each correct answer presents a partial solution. Choose all that apply.)

A. Change the encryption key.
B. Specify the execution account.
C. Join the scale-out deployment.
D. Set the Report Server Web Service URL.
E. Set the Report Manager URL.
F. Delete the encryption key.

Answer: A, B, E

Explanation:
A: We need to restore a copy of the encryption key from SSRS01. This step is necessary for enabling reversible encryption on pre-existing connection strings and credentials that are already in the report server database.
B: Reporting Services provides a special account that is used for unattended report processing and for sending connection requests across the network. The account is used in the following ways:
/ Send connection requests over the network for reports that use database authentication, or connect to external report data sources that do not require or use authentication.
/ Retrieve external image files that are used in report. If you want to use an image file and the file cannot be accessed through Anonymous access, you can configure the unattended report processing account and grant the account permission to access the file.
E: Example:
1.First of all open Internet Explorer and go to **Report Manager URL** which is something like below:
http://string-pc/Reports2012
2. Click on your SSRS project. So now it will show you the list of reports which are deployed on your report server.



3. Now click on down arrow on the report which you want to subscribe and select**Manage**.
Etc.
* From Scenario:
/ A new server named SSRS02 has been joined to the domain, SSRS02 will host a single-server deployment of SSRS so that snapshots of critical reports are accessible during the upgrade.
/ You have the following requirements for SSRS02:
Replicate the SSRS01 configuration.
Ensure that all current reports are available on SSRS02.
Minimize the performance impact on SSRS01.
/ In preparation for the upgrade, the SSRS-related components have been installed on the new SSRS02 server by using the Reporting Services file-only installation mode. The Reporting Services databases have been restored from SSRS01 and configured appropriately.
/ SSRS02 is the recovery server and is running the same version of SSRS as SSRS01.
The report server configuration files, custom assemblies, and extensions on SSRS02 are manually synchronized with SSRS01.

Question: 12

You need to re-establish subscriptions on SSRS01.
What should you do?

A. Start the SQL Server Agent on SSRS01.
B. Restore the ReportServer database.
C. Restore the ReportServerTempDB database.
D. Use the SQL Server Configuration Manager to reset the SQL Service account credentials.

Answer: A

Question: 13

You need to design the recovery strategy for SSRS01.
What should the strategy include? (Each correct answer presents part of the solution. Choose all that apply.)

A. Re-create the SQL Server Agent jobs that are used to trigger schedules.
B.Restore the ReportServer and ReportServerTempDB databases with recovery.
C.Restore the ReportServer and ReportServerTempDB databases with no recovery.
D.Restore the msdb database.
E.Restore the Report Server encryption key.
F.Restore the database encryption key.

Answer: A, B, E

Case Study: 5

Data Architect

General Background

You are a Data Architect for a company that uses SQL Server 2012 Enterprise edition.

You have been tasked with designing a data warehouse that uses the company's financial database as the data source. From the data warehouse, you will develop a cube to simplify the creation of accurate financial reports and related data analysis.

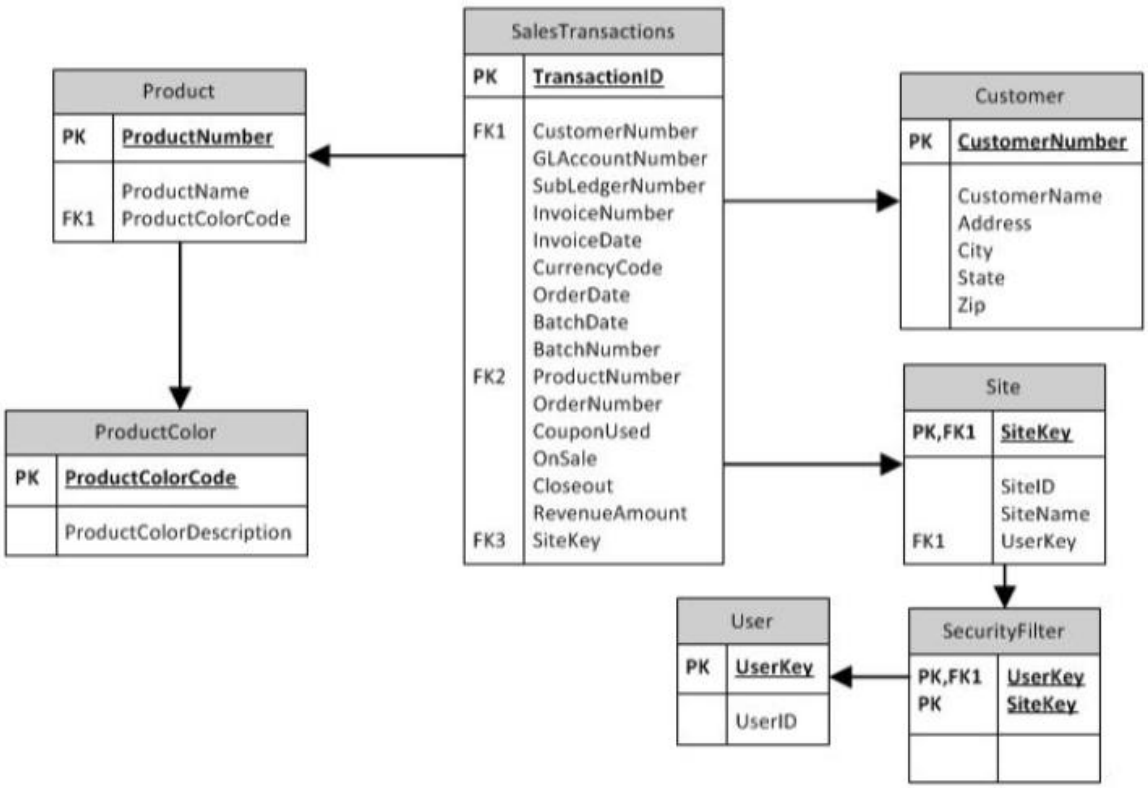
Background

You will utilize the following three servers:

- ServerA runs SQL Server Database Engine. ServerA is a production server and also hosts the financial database.
- ServerB runs SQL Server Database Engine, SQL Server Analysis Services (SSAS) in multidimensional mode, SQL Server Integration Services (SSIS), and SQL Server Reporting Services (SSRS).
- ServerC runs SSAS in multidimensional mode.
- The financial database is used by a third-party application and the table structures cannot be modified.

The relevant tables in the financial database are shown in the exhibit. (Click the Exhibit button.)

Financial Database tables



The SalesTransactions table is 500 GB and is anticipated to grow to 2 TB. The table is partitioned by month. It contains only the last five years of financial data. The CouponUsed, OnSale, and Closeout columns contain only the values Yes or No. Each of the other tables is less than 10 MB and has only one partition.

The SecurityFilter table specifies the sites to which each user has access.

Business Requirements

The extract, transform, load (ETL) process that updates the data warehouse must run daily between 8:00 P.M. and 5:00 A.M. so that it doesn't impact the performance of ServerA during business hours. The cube data must be available by 8:00 A.M.

The cube must meet the following business requirements:

- Ensure that reports display the most current information available.
- Allow fast access to support ad-hoc reports and data analysis.

Business Analysts will access the data warehouse tables directly, and will access the cube by using SSRS, Microsoft Excel, and Microsoft SharePoint Server 2010 PerformancePoint Services. These tools will access only the cube and not the data warehouse.

Technical Requirements

SSIS solutions must be deployed by using the project deployment model.

You must develop the data warehouse and store the cube on ServerB. When the number of concurrent SSAS users on ServerB reaches a specific number, you must scale out SSAS to ServerC and meet following requirements:

- Maintain copies of the cube on ServerB and ServerC.
- Ensure that the cube is always available on both servers.
- Minimize query response time.

The cube must meet the following technical requirements:

- The cube must be processed by using an SSIS package.
- The cube must contain the prior day's data up to 8:00 P.M. but does not need to contain same-day data.
- The cube must include aggregation designs when it is initially deployed.
- A product dimension must be added to the cube. It will contain a hierarchy comprised of product name and product color.

Because of the large size of the SalesTransactions table, the cube must store only aggregations—the data warehouse must store the detailed data. Both the data warehouse and the cube must minimize disk space usage.

As the cube size increases, you must plan to scale out to additional servers to minimize processing time.

The data warehouse must use a star schema design. The table design must be as denormalized as possible. The history of changes to the Customer table must be tracked in the data warehouse. The cube must use the data warehouse as its only data source.

Security settings on the data warehouse and the cube must ensure that queries against the SalesTransactions table return only records from the sites to which the current user has access.

The ETL process must consist of multiple SSIS packages developed in a single project by using the least amount of effort. The SSIS packages must use a database connection string that is set at execution time to connect to the financial database. All data in the data warehouse must be loaded by the SSIS packages.

You must create a Package Activity report that meets the following requirements:

- Track SSIS package execution data (including package name, status, start time, end time, duration, and rows processed).
- Use the least amount of development effort.

Question: 1

You need to identify changes in the financial database.
What should you do?

A. Add SQL Server replication to each table.
B. Extract data from the current partition of each table.
C. Add a timestamp column to each table.
D. Perform a full extract of each table.
E. Enable change data capture on each table.

Answer: E

Question: 2

You need to create the Package Activity report.
What should you do?

A. Create a log table and use SSIS event handlers to write to the log table. Then create an SSRS report that uses the log table.
B. Use the SSIS log provider for SQL Server. Then create an SSRS report that uses the sysssislog table.
C. Create a log table and build a custom log provider to write to the log table. Then create an SSRS report that uses the log table.
D. Create an SSRS report that uses thecatalog.executions and catalog.execution_data_statistics views.

Answer: D

Question: 3

You need to implement the aggregation designs for the cube.
What should you do?

A. Use the CREATE CACHE statement.
B. Use the Aggregation Design Wizard.
C. Create relational indexes on the source tables.
D. Use the Usage-Based Optimization Wizard.

Answer: B

Question: 4

You need to slice data by the CouponUsed, OnSale, and Closeout columns.
What should you do?

A. Create one linked dimension for each column.
B. Create one degenerate dimension.
C. Create one role-playing dimension.
D. Create one junk dimension.

Answer: D

Question: 5

You need to design a cube partitioning strategy to be implemented as the cube size increases.
What should you do?

A. Use relational OLAP (ROLAP) on all local partitions.
B. Implement monthly remote partitions.
C. Use multidimensional OLAP (MOLAP) on all local partitions.
D. Implement monthly local partitions.

Answer: B

Question: 6

You need to choose the appropriate key to use when designing a dimension table based on the Customer table.
What should you do?

A. Use a surrogate key.
B. Use a natural key.
C. Use the CustomerNumber column as the key.
D. Concatenate the CustomerName and CustomerNumber columns and use the concatenated string as the key.
E. Use the CustomerName column as the key.

Answer: A

Question: 7

You need to implement the product dimension.
What should you do?

A. In the data warehouse, create a product dimension from a view that joins the
Product and ProductColor tables in the financial database and contains product name and product color attributes.
B. In the data warehouse, create a dimension table that contains product name and a dimension table that contains product color.
C. In the data warehouse, create a product dimension table that contains product name and product color.
D. In the cube, create a named query that joins the Product and ProductColor tables in the financial database.

Answer: C

Question: 8

You need to scale out SSAS.
What should you do?

A. Back up the cube on ServerB and restore it on ServerC each day.
B. Create an empty cube on ServerC and link to the objects in the cube on ServerB.
C. Process the cube on both ServerB and ServerC each day.
D. Synchronize the cube from ServerB to ServerC each day.

Answer: D

Question: 9

You need to implement security in the cube to limit the sites visible to each user.
What should you do?

A. Create an SSAS database role in the cube for each user and assign the sites each user can access to his or her database role.
B. Create an SSAS server role for each user and assign the sites each user can access to his or her server role.
C. Create an SSAS database role and define a Multidimensional Expressions (MDX) calculation to implement dynamic

dimension security.
D. Create a view on the SalesTransactions table that uses the SecurityFilter and User table data to limit the sites for each user.

Answer: C

Question: 10

You need to implement the aggregation designs for the cube.
What should you do?

A. Use the Usage-Based Optimization Wizard.
B. Use the Aggregation Design Wizard.
C. Partition the cube by month.
D. Implement cache warming in SSAS via an SSIS package.

Answer: B

Question: 11

You need to select the appropriate storage settings for the cube.
Which settings should you choose?

A. Relational OLAP (ROLAP) with proactive caching enabled
B. Multidimensional OLAP (MOLAP) with proactive caching enabled and a rebuild interval of 24 hours
C. Hybrid OLAP (HOLAP) with proactive caching disabled
D. Hybrid OLAP (HOLAP) with proactive caching enabled

Answer: C

Question: 12

You need to identify changes in the financial database.
What should you do?

A. Add SQL Server log shipping to each table.
B. Add SQL Server mirroring to each table.
C. Perform a full extract of each table.
D. Enable change data capture on each table.
E. Create an AlwaysOn Availability Group that includes all the tables.

Answer: D

Question: 13

You need to configure a parameter for the database connection string.
What should you do?

A. Use a required package parameter.

B. Use a required project parameter.
C. Use a package configuration.
D. Use a global variable.

Answer: B

Question: 14

You need to restrict access to data in the tables in the data warehouse.
What should you do?

A. Configure column-level permissions.
B.Configure database roles.
C.Create views and grant permissions to the views.
D.Configure application roles.

Answer: C

Case Study: 6

WingTip Toys

General Background

You are a data architect for WingTip Toys. The company uses SQL Server 2012 Enterprise edition. SQL Server Analysis Services (SSAS) and SQL Server Reporting Services (SSRS) are installed on separate servers.

Data Warehouse

The company's data warehouse initially contained less than 100 MB and 100 million rows of data from only one data source. It now contains more than 10 TB and 10 billion rows of data, in 25 tables, from 12 data sources.

The largest table in the data warehouse, the factOrders table, contains 5 TB of data. The

factOrders table contains three date keys: OrderDateKey InvoiceDateKey, and ShipDateKey. The data warehouse server has 1 TB of RAM. Memory usage is currently at 20 percent.

One billion rows of data are added to the data warehouse each month. New data is copied each night from the data sources into SQL Server staging tables, and existing records are not updated. The largest data set is order information, which is loaded in parallel into multiple staging tables, one for each data source. All the staging tables have the same structure and belong to the same filegroup as the factOrders table.

The dimCustomers table stores customer information that may change over time.

Data Models

You are developing three SSAS databases, as described in the following table.

Database name	Model type	Description
Operations	Multidimensional	Includes dimensions named **Customers**, **Date**, and **Product**, and a measure group named **Orders** that is based on the **factOrders** table. All business users are assigned to the **BusinessUsers** database role. Business users can currently view metadata for all dimensions in the database. Managers can view only data related to their departments.
Sales	Tabular	Includes all tables and rows in the data warehouse.
Finance	To be determined	The initial database size will be approximately the same as the total memory of the SSAS server.

Reporting

Business users frequently generate reports in Microsoft Excel by using PowerPivot. The PowerPivot Management Dashboard does not currently display any usage data.

Several SSRS reports exist that use the data warehouse as a source. The data warehouse queries are aggregate queries that use the factOrders table and one or more dimension tables. All SSRS data sources use Integrated Windows authentication.

SSRS displays a security access error message when managers run SSRS reports based on the Operations database.

Reporting performance has become unacceptably slow.

Business Requirements

Improve the query speed of the SSRS reports.

Allow business users to create reports by using PowerPivot and Power View.

Ensure that all users other than business users can view metadata for the Customers dimension. Ensure that business users cannot view metadata for the Customers dimension.

Technical Requirements

Modify the tables in the data warehouse to minimize aggregate query processing time.

Minimize disk storage in the data warehouse.

Ensure that all multidimensional models process data as quickly as possible.

Create a fact table named factCustomerContact in the data warehouse to store the contact date, customer key, and communication type for each instance of customer contact.

Store the history of customer information changes in the dimCustomers table.

Move data from the staging tables into the factOrders table as quickly as possible. When creating dimensions for the date keys in the factOrders table, minimize storage space requirements and optimize the cube processing time.

Ensure that queries against the Sales database return the most current data in the data warehouse.

Ensure that the SSAS model of the Finance database does not page to disk or return a memory error as the size of the database grows.

Create an SSAS monitoring solution that tracks the following data:

- Queries answered per second
- Queries from cache direct per second
- Queries from file per second.

Question: 1

You need to ensure that managers can successfully run reports.
What should you do?

A. Implement Kerberos delegation.
B. Configure the SSRS data sources to store Windows credentials.
C. Implement forms-based authentication.
D. Configure the CustomData property in the connection strings.

Answer: A

Question: 2

You need to implement a strategy for efficiently storing sales order data in the data warehouse.
What should you do?

A. Separate the factOrders table into multiple tables, one for each month that has orders, and use a local partitioned view.
B. Separate the factOrders table into multiple tables, one for each day that has orders, and use a local partitioned view.
C. Create daily partitions in the factOrders table.
D. Create monthly partitions in the factOrders table.

Answer: C

Question: 3

You need to ensure that you can monitor the usage data.
What should you do?

A. In SharePoint Central Administration, enable usage data collection.

B. In the PowerPivot Configuration Tool, repair PowerPivot for SharePoint.
C. In the PowerPivot Configuration Tool, upgrade PowerPivot for SharePoint.
D. In Reporting Services Configuration Manager, enable report execution logging.

Answer: A

Question: 4

You need to improve the performance of data warehouse queries.
What should you do?

A. Create columnstore indexes.
B. Create clustered indexes.
C. Create indexed views.
D. Create bitmap indexes.

Answer: A

Question: 5

You need to create the factCustomerContact table.
Which type of table should you create?

A. A fact table with a non-additive measure
B. A factless fact table
C. A periodic snapshot fact table
D. A fact table with an additive measure

Answer: B

Question: 6

You need to configure permissions for the Customers dimension.
What should you do? (Each correct answer presents a complete solution. Choose all that apply.)

A. In SQL Server Management Studio, configure the BusinessUsers role to disallow the reading of all definitions.
B. In SQL Server Data Tools, configure the BusinessUsers role to disallow the reading of the Customers dimension definition.
C. In SQL Server Management Studio, deny the member set for the Customers dimension data by using the Multidimensional Expressions (MDX) expression Filter([BusinessUsers]).
D. In SQL Server Management Studio, configure the BusinessUsers role to disallow the reading of the Customers dimension definition.

Answer: B, D

Question: 7

You need to select a method of moving data from the staging tables to the factOrders table.
What type of Transact-SQL (T-SQL) statement should you use?

A. INSERT INTO...SELECT
B. SELECT...INTO
C. ALTER PARTITION-SWITCH
D. ALTER PARTITION FUNCTION
E. ALTER TABLE...SWITCH

Answer: E

Question: 8

You need to select the appropriate mode for the Sales database.
Which mode should you select?

A. ROLAP
B. Direct Query
C. MOLAP
D. In-Memory

Answer: B

Question: 9

You need to design the dimCustomers table.
Which design approach should you use?

A. Reference dimension
B. Type 2 slowly changing dimension
C. Junk dimension
D. Conformed dimension
E. Type 1 slowly changing dimension

Answer: B

Question: 10

You need to select and configure a tool for the monitoring solution.
What should you choose?

A. Performance Monitor configured with the MSAS11:Storage Engine Query counter
B. Performance Monitor configured with the MSAS11:Processing counter
C. SQL Server Profiler configured with the Query Processing: Query Subcube event
D. SQL Server Profiler configured with the Queries Events: Query Begin event

Answer: A

Question: 11

You need to select the appropriate model type for the Finance database.

Which model type should you select?

A. Star schema
B.Multidimensional
C.Relational
D.Tabular with PowerPivot

Answer: B

Question: 12

You need to implement the date dimension in the Operations database.
What should you do?

A. Create three database dimensions. Add each database dimension as a cube dimension by setting the Referenced relationship type.
B.Create one database dimension. Add three cube dimensions based on the database dimension. Set the Regular relationship type for each cube dimension.
C.Create three database dimensions. Add each database dimension as a cube dimension by setting the Regular relationship type.
D.Create one database dimension. Add three cube dimensions based on the database dimension. Set the Referenced relationship type for each cube dimension.

Answer: B

Case Study: 7

Contoso, Ltd Case B

General Background

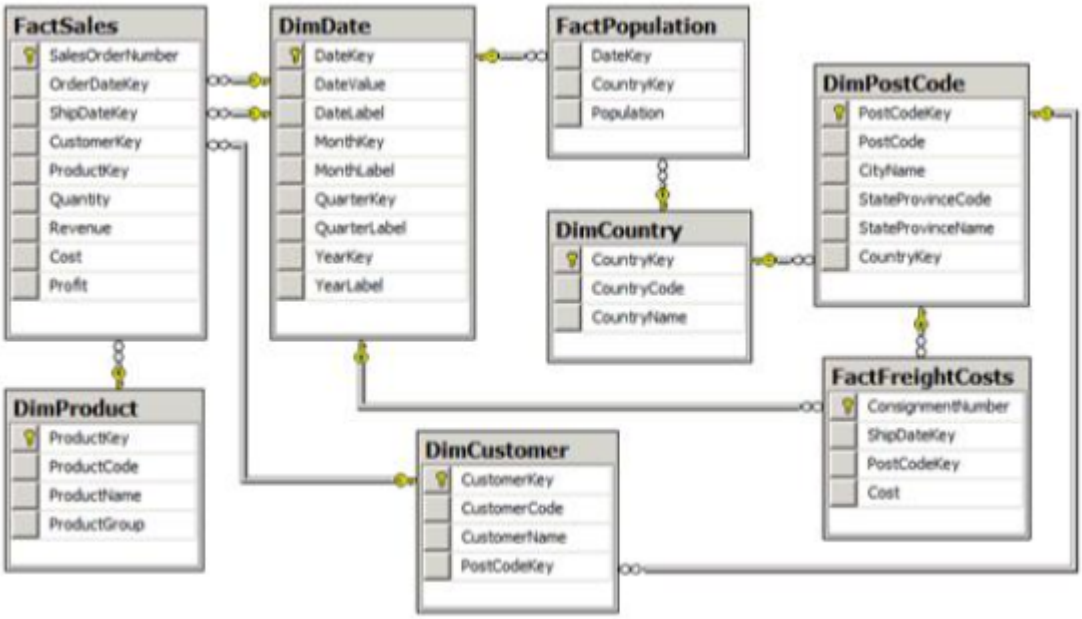
You are the business intelligence (BI) solutions architect for Contoso, Ltd, an online retailer.

You produce solutions by using SQL Server 2012 Business Intelligence edition and Microsoft SharePoint Server 2010 Service Pack 1 (SP1) Enterprise edition.

A SharePoint farm has been installed and configured for intranet access only. An Internet-facing web server hosts the company's public e-commerce website. Anonymous access is not configured on the Internet-facing web server.

Data Warehouse

The data warehouse is deployed on a 5QL Server 2012 relational database instance. The data warehouse is structured as shown in the following diagram.



The following Transact-SQL (T-SQL) script is used to create the FactSales and FactPopulation tables:

```
CREATE TABLE [dbo].[FactSales]
(
    [SalesOrderNumber] NCHAR(10) PRIMARY KEY
    ,[OrderDateKey] INT NOT NULL
    ,[ShipDateKey] INT NOT NULL
    ,[CustomerKey] INT NOT NULL
    ,[ProductKey] INT NOT NULL
    ,[Quantity] INT NOT NULL
    ,[Revenue] SMALLMONEY NOT NULL
    ,[Cost] SMALLMONEY NOT NULL
    ,[Profit] AS ([Revenue]-[Cost])
);
GO

CREATE TABLE [dbo].[FactPopulation]
(
    [DateKey] INT NOT NULL
    ,[CountryKey] INT NOT NULL
    ,[Population] INT NOT NULL
);
GO
```

The FactPopulation table is loaded each year with data from a Windows Azure Marketplace commercial dataset. The table contains a snapshot of the population values for all countries of the world for each year. The world population for the last year loaded exceeds 6.8 billion people.

ETL Process

SQL Server Integration Services (SSIS) is used to load data into the data warehouse. All SSIS projects are developed by using the project deployment model.

A package named StageFactSales loads data into a data warehouse staging table. The package sources its data from numerous CSV files exported from a mainframe system. The CSV file names begin with the letters GLSD followed by a unique numeric identifier that never exceeds six digits. The data content of each CSV file is identically formatted.

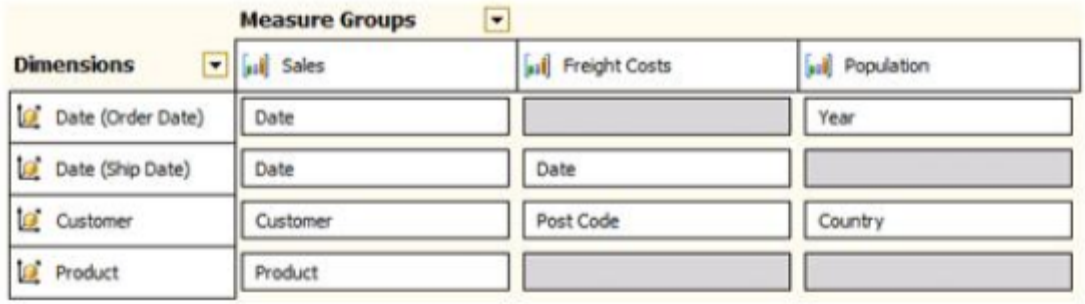
A package named LoadFactFreightCosts sources data from a Windows Azure SQL Database database that has data integrity problems. The package may retrieve duplicate rows from the database.

The package variables of all packages have the RaiseChangedEvent property set to true. A package-level event handler for the OnVariableValueChanged event consists of an Execute SQL task that logs the System::VariableName and System::VariableValue variables.

Data Models

SQL Server Analysis Services (SSAS) is used to host the Corporate BI multidimensional database. The Corporate BI database contains a single data source view named Data Warehouse. The Data Warehouse data source view consists of all data warehouse tables. All data source view tables have been converted to named queries.

The Corporate BI database contains a single cube named Sales Analysis and three database dimensions: Date, Customer and Product. The dimension usage for the Sales Analysis cube is as shown in the following image.



Dimensions	Measure Groups: Sales	Freight Costs	Population
Date (Order Date)	Date		Year
Date (Ship Date)	Date	Date	
Customer	Customer	Post Code	Country
Product	Product		

The Customer dimension contains a single multi-level hierarchy named Geography. The structure of the Geography hierarchy is shown in the following image.

The Sales Analysis cube's calculation script defines one calculated measure named Sales Per Capita. The calculated measure expression divides the Revenue measure by the Population measure and multiplies the result by 1,000. This calculation represents revenue per 1,000 people.

The Sales Analysis cube produces correct Sales Per Capita results for each country of the world; however, the Grand Total for all countries is incorrect, as shown in the following image (rows 2-239 have been hidden).

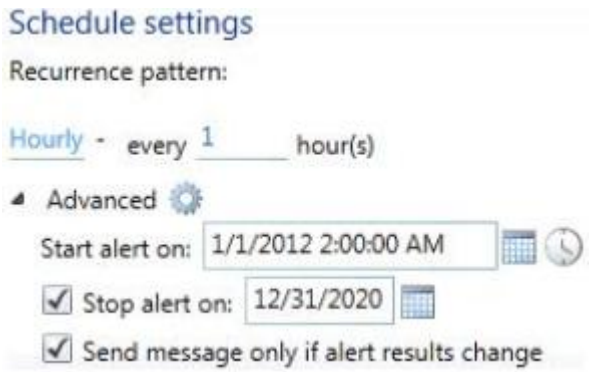
	A	B	C
1	Row Labels	Revenue	Sales Per Capita
240	Western Sahara	253	0.46
241	Yemen	12,345	0.52
242	Zambia	1,700	0.13
243	Zimbabwe	16,000	1.25
244	Grand Total	46,030,298	-26.76

A role named Analysts grants Read permission for the Sales Analysis cube to all sales and marketing analysts in the company.

SQL Server Reporting Services (SSRS) is configured in SharePoint integrated mode. All reports are based on shared data sources.

Corporate logo images used in reports were originally configured as data-bound images sourced from a SQL Server relational database table. The image data has been exported to JPG files. The image files are hosted on the Internet-facing web server. All reports have been modified to reference the corporate logo images by using the fully qualified URLs of the image files. A red X currently appears in place of the corporate logo in reports.

Users configure data alerts on certain reports. Users can view a report named Sales Profitability on demand; however, notification email messages are no longer being sent when Sales Profitability report data satisfies alert definition rules. The alert schedule settings for the Sales Profitability report are configured as shown in the following image.



Business Requirements

Data Models

Users must be able to:

- Provide context to measures and filter measures by using all related data warehouse dimensions.
- Analyze measures by order date or ship date.

Additionally, users must be able to add a measure named Sales to the report canvas by clicking only once in the Power View field list. The Sales measure must allow users to analyze the sum of the values in the Revenue column of the FactSales data warehouse table. Users must be able to change the aggregation function of the Sales measure.

Analysis and Reporting

A sales manager has requested the following query results from the Sales Analysis cube for the 2012 fiscal year:

- Australian postal codes and sales in descending order of sales.
- Australian states and the ratio of sales achieved by the 10 highest customer sales made for each city in that state.

Technical Requirements

ETL Processes

If an SSIS package variable value changes, the package must log the variable name and the new variable value to a custom log table.

The StageFactSales package must load the contents of all files that match the file name pattern. The source file name must also be stored in a column of the data warehouse staging table.

In the design of the LoadFactSales package, if a lookup of the dimension surrogate key value for the product code fails, the row details must be emailed to the data steward and written as an error message to the SSIS catalog log by using the public API.

You must configure the LoadFactFreightCosts package to remove duplicate rows, by using the least development effort.

Data Models

Users of the Sales Analysis cube frequently filter on the current month's data. You must ensure that queries to the Sales Analysis cube default to the current month in the Order Date dimension for all users.

You must develop and deploy a tabular project for the exclusive use as a Power View reporting data source. The model must be based on the data warehouse. Model table names must exclude the Dim or Fact prefixes. All measures in the model must format values to display zero decimal places.

Analysis and Reporting

Reports must be developed that combine the SSIS catalog log messages with the package variable value changes.

Question: 1

DRAG DROP
You need to implement the requirements for the StageFactSales package.
Which four 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.)

Answer:

Box 1:

Add a MULTIFLATFILE connection manager and configure it to load data from files named **GLSD*.csv**.

Box 2:

Add a Data Flow task, then add a Flat File source to the task and configure it to use the connection manager.

Box 3:

Set the **FileNameColumnName** property of the source.

Box 4:

Add an OLE DB destination and configure it to store the output of the source.

Explanation:
Note:
* MULTIFLATFILE

A Multiple Flat Files connection manager enables a package to access data in multiple flat files.
* From scenario: A package named StageFactSales loads data into a data warehouse staging table. The package sources its data from numerous CSV files exported from a mainframe system. The CSV file names begin with the letters GLSD followed by a unique numeric identifier that never exceeds six digits. The data content of each CSV file is identically formatted.

Question: 2

DRAG DROP
You are creating the Australian states query.
Which Multidimensional Expressions (MDX) calculation should you use to complete the query?
To answer, drag the appropriate calculation to the answer area.

```
SUM(
   TOPCOUNT(DESCENDANTS([Customer].[Geography].CURRENTMEMBER,
      [Customer].[Geography].[City]), 10,
      [Measures].[Sales Amount]),
   [Measures].[Sales Amount])
/
([Customer].[Geography].CURRENTMEMBER, [Measures].[Sales Amount])
```

```
SUM(
   TOPCOUNT(DESCENDANTS([Customer].[Geography].CURRENTMEMBER,
      [Customer].[Geography].[Customer]), 10,
      [Measures].[Sales Amount]),
   [Measures].[Sales Amount])
/
([Customer].[Geography].CURRENTMEMBER, [Measures].[Sales Amount])
```

```
SUM(
   GENERATE(DESCENDANTS([Customer].[Geography].CURRENTMEMBER,
      [Customer].[Geography].[City]),
      TOPCOUNT(DESCENDANTS([Customer].[Geography].CURRENTMEMBER,
         [Customer].[Geography].[Customer]), 10,
         [Measures].[Sales Amount])),
   [Measures].[Sales Amount])
/
([Customer].[Geography].CURRENTMEMBER, [Measures].[Sales Amount])
```

```
SUM(
   GENERATE(DESCENDANTS([Customer].[Geography].CURRENTMEMBER,
      [Customer].[Geography].[City]),
      TOPCOUNT(DESCENDANTS([Customer].[Geography].CURRENTMEMBER,
         [Customer].[Geography].[City]), 10,
         [Measures].[Sales Amount])),
   [Measures].[Sales Amount])
/
([Customer].[Geography].CURRENTMEMBER, [Measures].[Sales Amount])
```

```
WITH MEMBER [Measures].[State Sales Density By Top 10 Customers Per City]
AS
```

```
SELECT
   {[Measures].[State Sales Density By Top 10 Customers Per City]}
   ON COLUMNS,
   [Customer].[Geography].[Australia].CHILDREN ON ROWS
FROM
   [Sales]
WHERE
   ([Date].[Fiscal].[FY2012])
```

Answer:

```
WITH MEMBER [Measures].[State Sales Density By Top 10 Customers Per City]
AS
  SUM(
     GENERATE(DESCENDANTS([Customer].[Geography].CURRENTMEMBER,
        [Customer].[Geography].[City]),
        TOPCOUNT(DESCENDANTS([Customer].[Geography].CURRENTMEMBER,
           [Customer].[Geography].[Customer]), 10,
           [Measures].[Sales Amount])),
     [Measures].[Sales Amount])
  /
  ([Customer].[Geography].CURRENTMEMBER, [Measures].[Sales Amount])
SELECT
   {[Measures].[State Sales Density By Top 10 Customers Per City]}
   ON COLUMNS,
   [Customer].[Geography].[Australia].CHILDREN ON ROWS
FROM
   [Sales]
WHERE
   ([Date].[Fiscal].[FY2012])
```

Question: 3

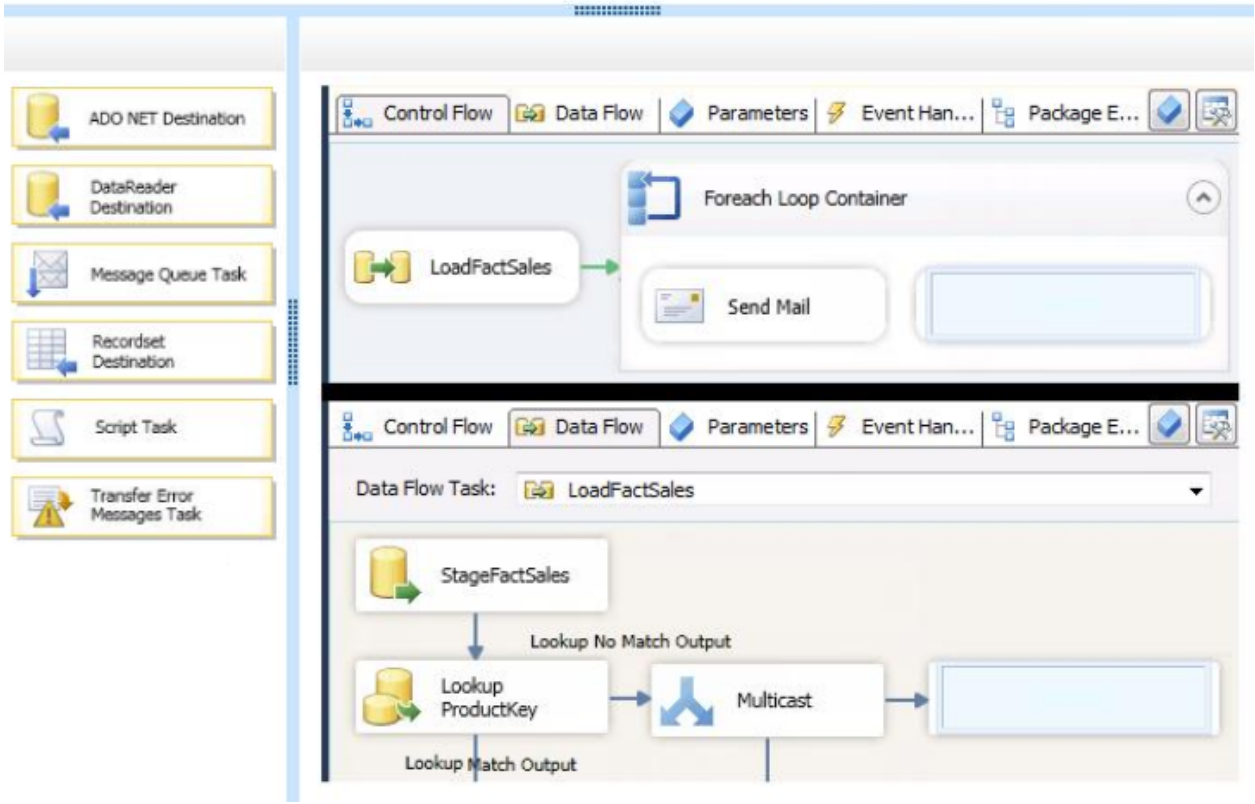
You need to ensure that the Sales Per Capita calculated measure produces correct results.
What should you do?

A. Set the DataType property of the Population column of the FactPopulation data source view table to System.Int64.
B. Set the Source DataType property of the Population measure to BigInt.
C. Set the data type of the Population column of the FactPopulation data warehouse table to BIGINT.
D. Set the DataType property of the Population measure to BigInt.

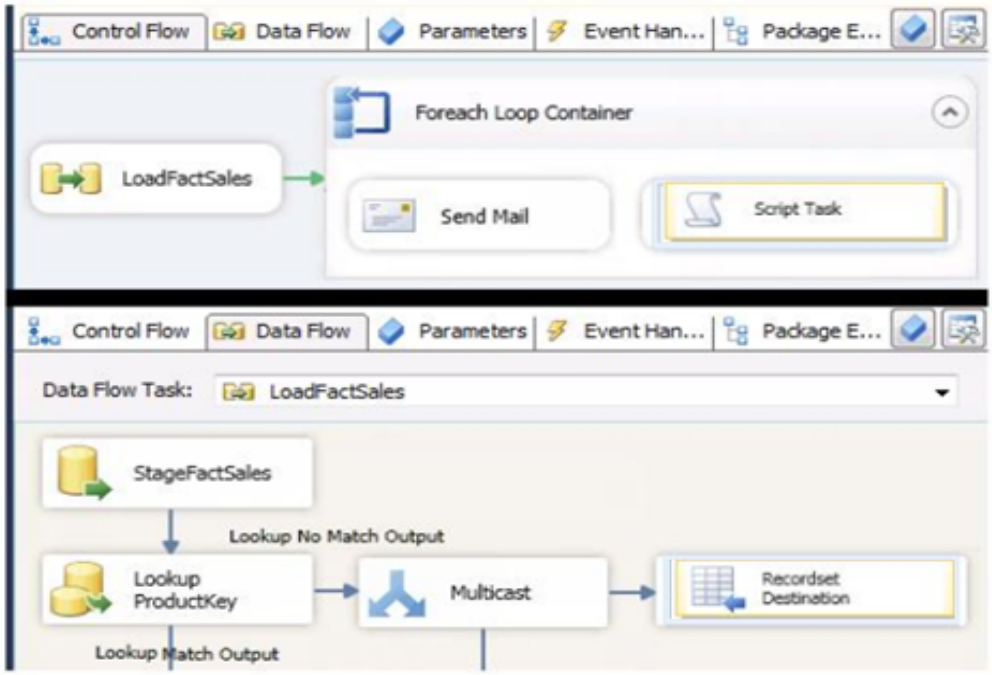
Answer: B

Question: 4

DRAG DROP
You need to develop the LoadFactSales package to write the error messages to the SSIS catalog log.
Which components should you use?
To answer, drag the appropriate components to the correct location or locations in the answer area. (Use only components that apply.)



Answer:



Question: 5

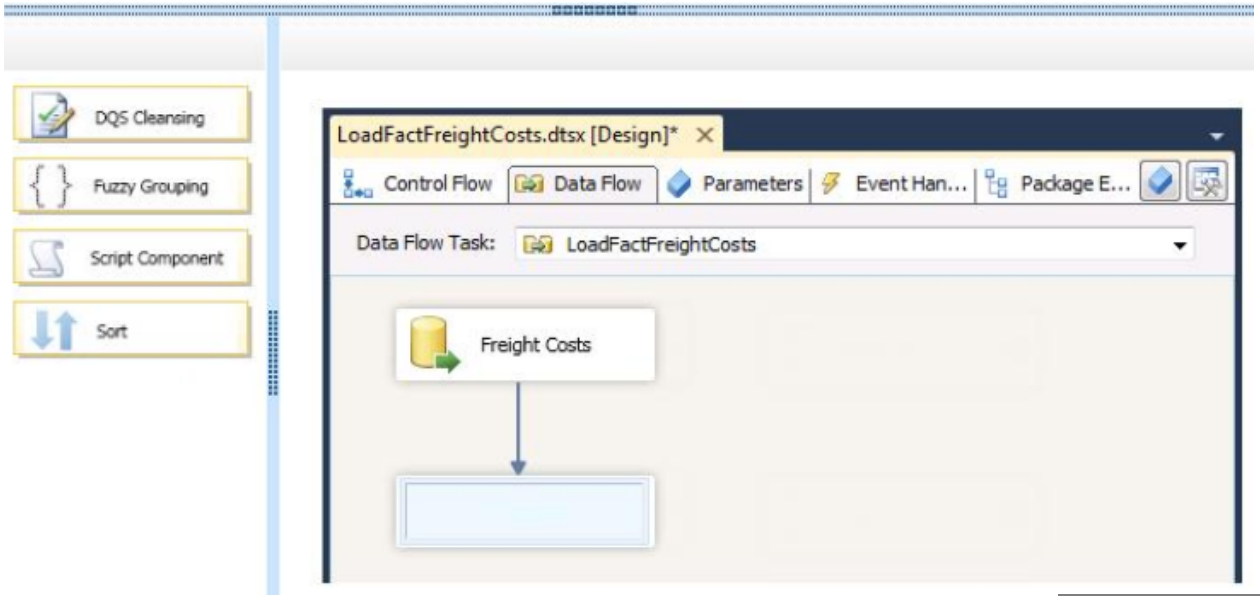
You need to ensure that the corporate logos appear in reports.
What should you do?

A. In SharePoint Central Administration, configure the unattended execution account.
B. In SharePoint Central Administration, configure the Report Server service account.
C. In Reporting Services Configuration Manager, configure the unattended execution account.
D. In Reporting Services Configuration Manager, configure the Report Server service account.

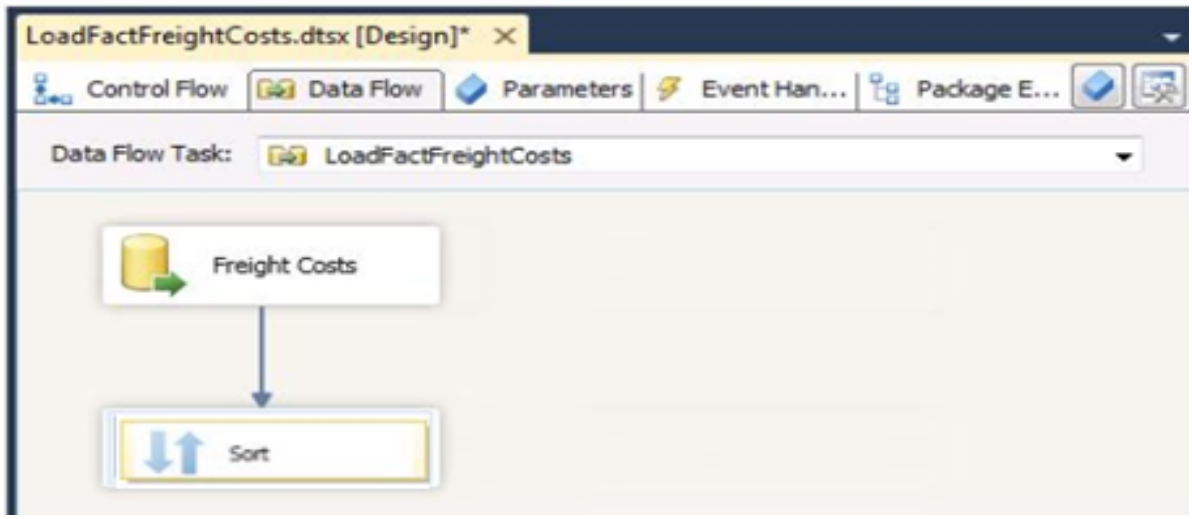
Answer: A

Question: 6

DRAG DROP
You need to configure the LoadFactFreightCosts package to address the data integrity issues.
Which data flow component should you use?
To answer, drag the appropriate data flow component to the answer area.



Answer:



Question: 7

You need to ensure that queries to the Sales Analysis cube default to the correct time period.

Where should you set the default member Multidimensional Expressions (MDX) expression?

A. In the DefaultMember property of the Month attribute of the Date dimension.
B. In the cube's calculation script.
C. In the DefaultMeasure property of the cube.
D. In the Analysts role.

Answer: B

Question: 8

You need to ensure that the Sales measure in the Power View field list meets the requirements.
What should you do? (Each correct answer presents a part of the solution. Choose all that apply.)

A. Format the column to display zero decimal places.
B. Hide the column from client tools.
C. Create a measure named Sales based on the column by using the Data Analysis Expressions (DAX) SUM() function.
D. Rename the column to Sales.
E. Format the measure to display zero decimal places.

Answer: A, C

Explanation:
* Data Analysis Expressions (DAX) provides many functions for creating aggregations such as sums, counts, and averages. These functions are very similar to aggregation functions used by Microsoft Excel.
* SUMX Function
Returns the sum of an expression evaluated for each row in a table.

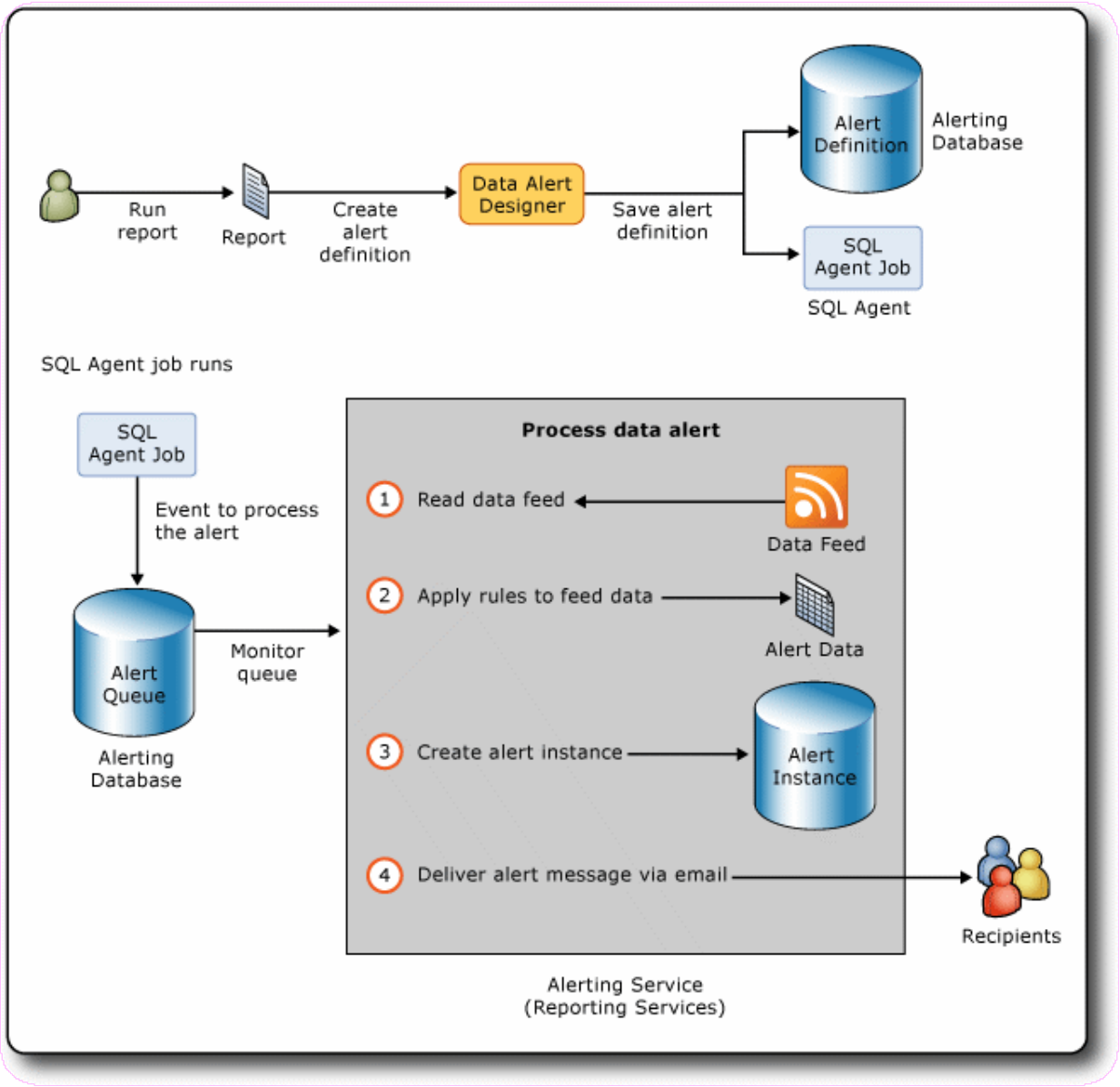
Question: 9

You need to identify the reasons that data alert notifications are not being sent.
Which of the following reasons are possible? (Each correct answer presents a complete solution. Choose al that apply.)

A. The shared schedule is paused.
B. The data source used by the report is disabled.
C. The SSRS service is not running.
D. The report data has not changed since the previous notification
E. The SQL Server Agent is not running.
F. The SSRS encryption key has been deleted.

Answer: C, E

Explanation:



One possibility is that no SQL Server Agent alerts have been configured. This is a free, easy way to get notified of corruption, job failures, or major outages even before monitoring systems pick it up.

Question: 10

You need to develop the tabular project to support the date analysis requirements.
What should you do?

A.
- Create one date table named Date.
- Create an active relationship between the DateKey column of the Date table and the OrderDateKey column of the Sales table.
- Create an inactive relationship between the DateKey column of the Date table and the ShipDateKey column of the Sales table.

B.
- Create two date tables, one named Order Date and one named Ship Date.
- Create an active relationship between the DateKey column of the Order Date table and the OrderDateKey column

of the Sales table.
- Create an inactive relationship between the DateKey column of the Ship Date table and the ShipDateKey column of the Sales table.

C.
- Create one date table named Date.
- Create an active relationship between the DateKey column of the Date table and the ShipDateKey column of the Sales table.
- Create an inactive relationship between the DateKey column of the Date table and the OrderDateKey column of the Sales table.

D.
- Create two date tables, one named Order Date and one named Ship Date.
- Create an active relationship between the DateKey column of the Order Date table and the OrderDateKey column of the Sales table.
- Create an active relationship between the DateKey column of the Ship Date table and the ShipDateKey column of the Sales table.

Answer: C

Question: 11

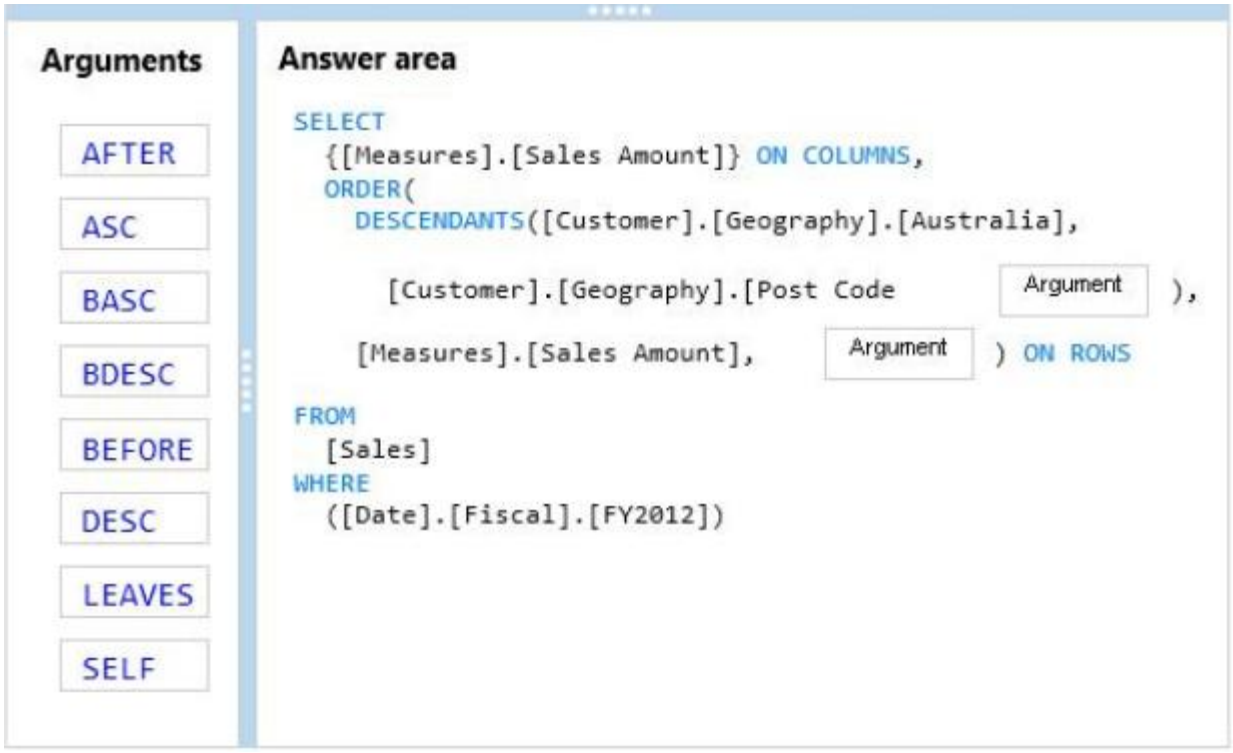
You need to update the Execute SQL task in the OnVariableValueChanged event handler of all SSIS packages.
Which additional variable should be logged?

A. System::ExecutionInstanceGUID
B.System::ServerExecutionID
C.System::VariableID
D.System::SourceID

Answer: C

Question: 12

DRAG DROP
You are creating the Australian postal code query.
Which arguments should you use to complete the query?
To answer, drag the appropriate arguments to the correct location or locations in the answer area. (Use only arguments that apply.)



Answer:

Box 1: BDESC
Box 2: DESC

Case Study: 8

Tailspin Toys Case B

Overview

Tailspin Toys is a manufacturing company that has offices across the United States, Europe, and Asia.

Tailspin Toys plans to implement a business intelligence (BI) solution for its US-based headquarters to manage the sales data, including information on customer transactions, products, sales quotas, and bonuses.

Existing Environment

Data Sources

Tailspin Toys currently stores data in line-of-business applications, relational databases, flat files, and the following;

- A Microsoft Excel spreadsheet named MarketResearch.xlsx. The spreadsheet is stored on a network drive in a directory owned by an analyst.
- A tabular model named Research.xlsx used in PowerPivot for Excel. Research.xlsx uses MarketResearch.xlsx as one of its data sources.

Network

The network contains an Active Directory forest named tailspintoys.com. The forest contains a Microsoft SharePoint Server 2013 server farm.

Implementation Plans

Databases

Tailspin Toys plans to build a star schema data warehouse named DB1. DB1 will be loaded from several different sources and will be updated nightly to contain new sales data.

DB1 will contain the following table types:

- A fact table to store transactional data, including transaction date, productID, customerID, quantity, and sales amounts.
- Dimension tables to store information about each customer, each product, each date, and each sales department user.

BI Semantic Models

Tailspin Toys plans to deploy the following BI semantic models:

- A multidimensional cube named CUBE1 that will store sales data. CUBE1 will be based on DB1 and will be hosted in SQL Server Analysis Services (SSAS). CUBE1 will contain two distinct count measures named UniqueCustomers and UniqueProducts. The measures are expected to aggregate hundreds of millions of rows from DB1.
- A tabular model named SalesCommission that will contain information about sales department user quotas and commissions.
- A tabular model named Research that will contain the migrated model from Research.xlsx.
- An instance of SSAS in tabular mode named Tabular.

Planned Reports and Queries

Tailspin Toys plans to implement the following reports and queries:

- Power View reports that use data from the Research model.
- Reports for each year the company recorded sales data that used the SalesCommission model. The reports will use the Dates_Between() and the DatesInPeriod() DAX functions in queries.
- Reports that use CUBE1 that contain the following query statements:

```
01  SELECT [Measures].[UniqueCustomers] ON 0,
02  [Date].[Date].[Date] ON 1
03  FROM [CUBE1]
04  WHERE
05  [Date].[Calendar Month].[Calendar Month].&[2012]&[1]

06  SELECT [Measures].[UniqueProducts] ON 0,
07  [Date].[Date].[Date] ON 1
08  FROM [CUBE1]
09  WHERE
10  [Date].[Calendar Month].[Calendar Month].&[2012]&[1]
```

- A report named SalesByCategory that uses CUBE1 and the following query statement: (Line numbers are included for reference only.)

```
01  SELECT
02  {[Measures].[SalesAmount]} on 0
03  ,{(
04  [Date].[CalendarYear].[&2012]
05  ,
06  [Product].[Categories].[Category].[Category1]
07  ),(
08  [Product].[Categories].[Category].[Category2]
09  ,
10  [Date].[CalendarYear].[&2012]
11  )} ON 1
12  from CUBE1
```

Self-Service Reporting

Tailspin Toys plans to deploy the following self-service reports:

- Reports created by sales department specialists that use CUBE1 and contain drillthroughs, maps, sparklines, and Key Performance Indicators (KPIs). The reports will be stored in a SharePoint Server document library named Library1.
- Reports created by sales department managers that use the SalesCommission model. The reports will contain visualizations that show sales department users their current sales as compared to their quota.
- Power Pivot models stored in a SharePoint Server document library that is configured as a PowerPivot Gallery named Gallery1.

Requirements

Data Security Requirements

Sales department users browsing CUBE1 must be able to view the sales data that relates to their respective customers only.

Access to reports must be controlled by using SharePoint permissions.

ETL Requirements

Tailspin Toys identifies the following extract, transformation, and load (ETL) requirements:

- Nightly updates of DB1 must support the incremental load of dimension and fact tables on separate schedules. Fact data may be loaded before dimension data.
- ETL processes must be able to update dimension attributes without losing context for historical facts.
- Referential integrity between dimension and fact tables must be maintained at all times.

Cube Performance Requirements

The design of CUBE1 must minimize the processing time of the UniqueCustomers and Unique Products measures. The time required to process CUBE1 each night must be minimized.

Data Refresh Requirements

The Research model must be refreshed nightly without interrupting the workflow of the analyst.

Question: 1

You need to recommend a cube architecture for CUBE1. The solution must meet the performance requirements for CUBE1.
Which two partitions should you recommend creating? Each correct answer presents part of the solution.

A. Partitions based on the values of the customerID column in the dimension table
B.Partitions based on the values of the customerID column in the fact table
C.Partitions based on the values of the productID column in the fact table
D.Partitions based on the values of the productID column in the dimension table

Answer: A, D

Question: 2

You execute the SalesbyCategory report and receive the following error message: "Members, tuples, or sets must use the same hierarchies in the function."
You need to ensure that the query executes successfully.
Which two actions should you perform? Each correct answer presents part of the solution.

A. Move the Product clause from line 08 to line 10.
B.Move the Date and Product clauses on line 11 to axis 0.
C.Move the Date clause from line 10 to line 08.
D.Move the Measures clause on line 02 to axis 1.

Answer: C

Question: 3

You need to implement the SalesCommission model to support the planned reports and queries.
What should you do?

A. Create a date table that contains only one row for each date on which a sale is recorded.
B.Use the existing transaction date column in the sales table for date calculations.
C.Create a date table that contains a row for every date since data started being recorded.
D.Create a new calculated date column in the sales table for date calculations.

Answer: C

Question: 4

You need to deploy a solution for the planned self-service reports that will be used by the sales department managers.
What is the best solution you should deploy? More than one answer choice may achieve the goal. Select the BEST answer.

A. A filter
B.A KPI
C.A calculated column
D.A measure

Answer: B

Question: 5

You need to recommend a partitioning strategy that meets the performance requirements for CUBE1.
What should you include in the recommendation?

A. Create separate measure groups for each distinct count measure.
B.Createone measure group for all distinct count measures.
C.Createa separate dimension for each distinct count attribute.
D.Createone dimension for all distinct count attributes.

Answer: A

Question: 6

You need to prepare the infrastructure for the planned implementation of Gallery1.
Which three actions should you perform? Each correct answer presents part of the solution,

A. Install a Database Engine instance.
B.Run the PowerPivot Configuration Tool.
C.Install the SQL Server Reporting Services add-in for SharePoint.
D.Install SQL Server PowerPivot for SharePoint.
E.Install the SQL Server Reporting Services - SharePoint feature.
F.Run the Install-SPUserSolution cmdlet.

Answer: B, C, D

Question: 7

You are deploying the Research model.
You need to ensure that the data contained in the model can be refreshed.
What should you do?

A. Import MarketResearch.xlsx to a new tabular database on the Tabular instance.
B.Assign the Tabular instance service account permissions to the MarketResearch.xlsx network location.
C.Create a SQL Server Integration Services (SSIS) package that imports data from MarketResearch.xlsx nightly. Load the data to CUBE1.
D.Upload MarketResearch.xlsx to Library1.

Answer: B

Question: 8

You need to configure Library1 to support the planned self-service reports.
What is the best configuration you should add to Library1? More than one answer choice may achieve the goal. Select the BEST answer.

A. The Report Builder report content type
B.The PowerPivot Gallery Document content type
C.The Report Builder Model content type
D.The Report content type

Answer: A

Question: 9

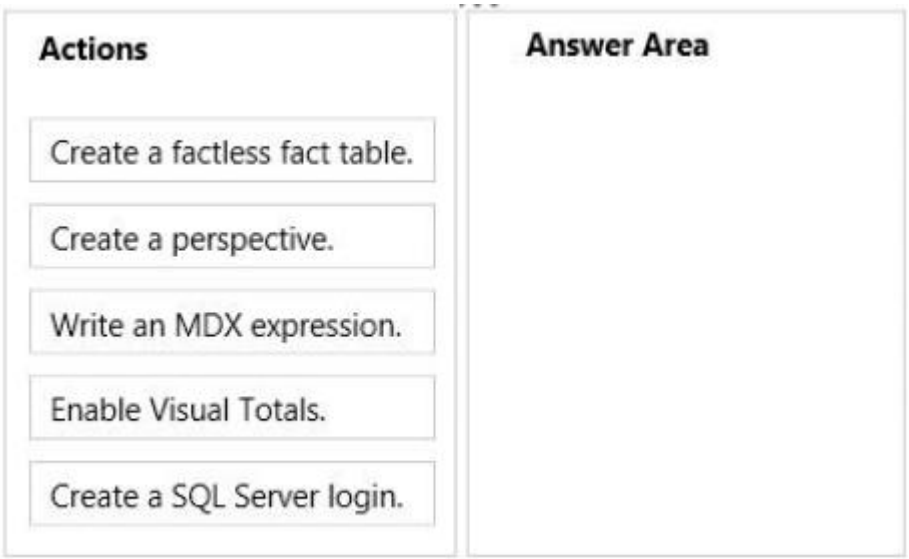
You need to recommend a SQL Server Integration Services (SSIS) package design that meets the ETL requirements.
What should you include in the recommendation?

A. Add new rows for changes to existing dimension members and enable inferred members.
B.Update non-key attributes in the dimension tables to use new values.
C.Update key attributes in the dimension tables to use new values.
D.Add new rows for changes to existing dimension members and disable inferred members.

Answer: A

Question: 10

DRAG DROP
You need to recommend a solution to implement the data security requirements for CUBE1.
Which three actions should you recommend performing in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.



Answer:

Box 1:

Create a SQL Server login.

Box 2:

Write an MDX expression.

Box 3:

Enable Visual Totals.