

2 SQL Server Analysis Service-SSAS.

MDXQuery1.mdx - (local).MultidimensionalProject1 (DESKTOP-VF50P25\Rami) - Microsoft SQL Server Management Studio

MDXQuery1.mdx - ...TOP-VF50P25\Rami* - Microsoft SQL Server Management Studio

Quick Launch (Ctrl+Q)

Object Explorer

Connect

- sales
- SD
- Security
- Server Objects
- Replication
- PolyBase
- AlwaysOn High Availability
- Management
- Integration Services Catalogs
- SQL Server Agent
 - Jobs
 - J1
 - Mybackup
 - syspolicy_purge_history
 - Job Activity Monitor
- Alerts
- Operators
- Proxies
- Error Logs

(Microsoft Analysis Server 13.0.1742.0 -)

- Databases
 - MultidimensionalProject1
 - MultidimensionalProject10
 - MultidimensionalProject11
 - MultidimensionalProject4
 - MultidimensionalProject6
 - MultidimensionalProject8
 - MultidimensionalProject9
- Assemblies
 - ExcelMDX
 - EXCELXINTERNAL
 - System
 - VBAMDX
 - VBAMDXINTERNAL

MDXQuery1.mdx - ...TOP-VF50P25\Rami*

Cube: Sales

Measure Group: <All>

Sales

- Measures
 - Fact Sales
 - Fact Sales Count
 - Qty
 - Qty Total Price
 - Calculated Member
 - KPIs
- Channel Dim
 - Channel ID
 - City
 - Country
- Customer Dim
- Product Dim
 - Product ID
 - Product Name
- Salesman Dim
- Time Dim
 - Calendar Quarter
 - Calendar Year
 - Time ID

select [Measures].[Qty] on columns,
([Product Dim].[Product Name].allmembers)*([Time Dim].[Calendar Year].allmembers)
from [Sales]
where [Channel Dim].[City].[Cairo]

Messages Results

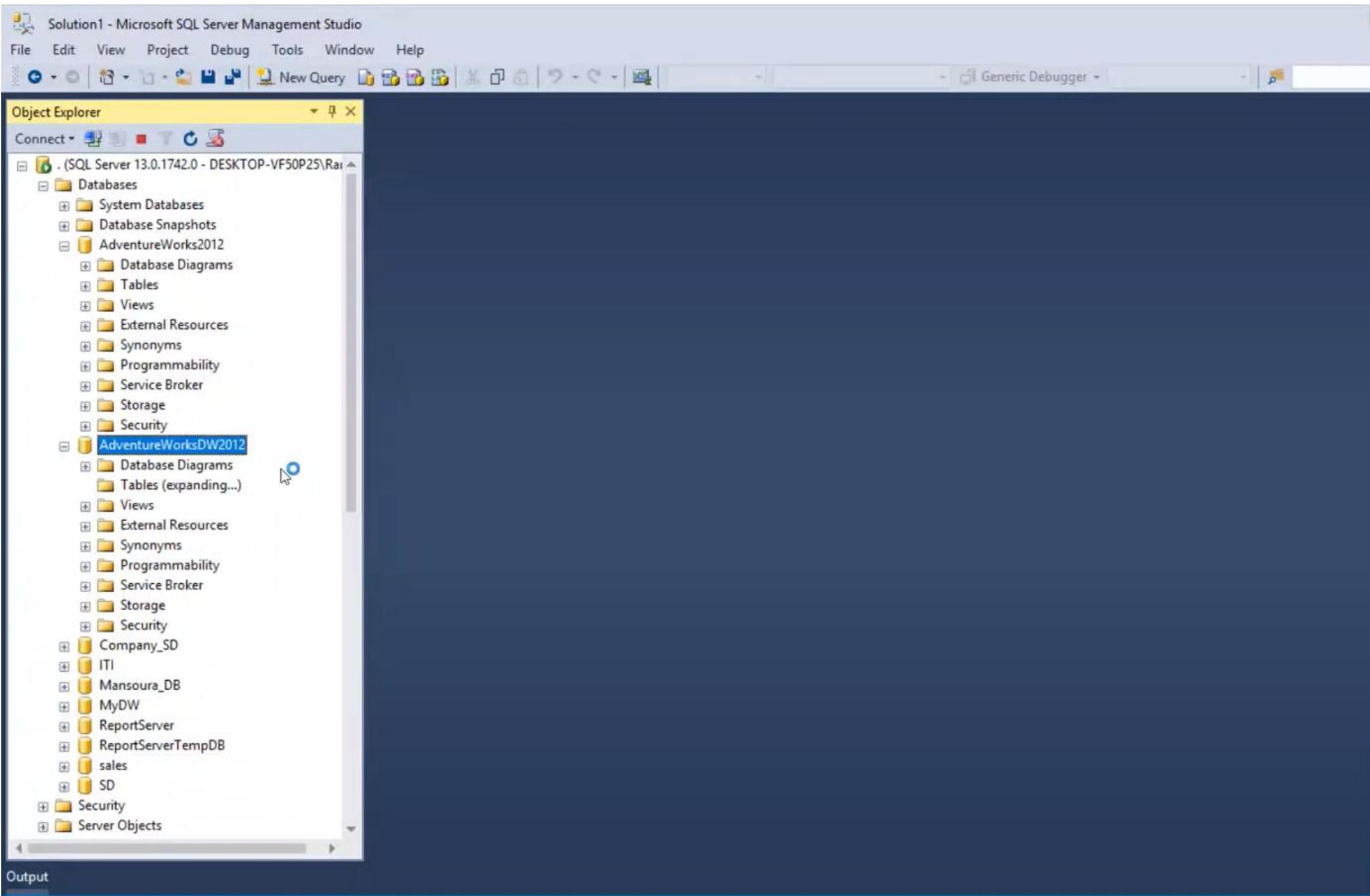
		Qty
All	All	890
All	2007	380
All	2008	510
Accesories	All	305
Accesories	2007	110
Accesories	2008	195
Books	All	155
Books	2007	80
Books	2008	75
Clothing	All	185
Clothing	2007	110
Clothing	2008	75
Components	All	115
		0

BI "DAY 2" 01:55:32 G

Activate Windows

(local) DESKTOP-VF50P25

Query executed successfully.



2 SQL Server Analysis Service-SSAS.

Object Explorer

Connect ▾

- + External Tables
 - + dbo.AdventureWorksDWBuildVers
 - + dbo.DatabaseLog
 - + dbo.DimAccount
 - + dbo.DimCurrency
 - + dbo.DimCustomer
 - + dbo.DimDate
 - + dbo.DimDepartmentGroup
 - + dbo.DimEmployee
 - + dbo.DimGeography
 - + dbo.DimOrganization
 - + dbo.DimProduct
 - + dbo.DimProductCategory
 - + dbo.DimProductSubcategory
 - + dbo.DimPromotion
 - + dbo.DimReseller
 - + dbo.DimSalesReason
 - + dbo.DimSalesTerritory
 - + dbo.DimScenario
 - + dbo.FactAdditionalInternationalPr
 - + dbo.FactCallCenter
 - + dbo.FactCurrencyRate
 - + dbo.FactFinance
 - + dbo.FactInternetSales
 - + dbo.FactInternetSalesReason
 - + dbo.FactProductInventory
 - + dbo.FactResellerSales
 - + dbo.FactSalesQuota
 - + dbo.FactSurveyResponse
 - + dbo.ProspectiveBuyer
- + Views
- + External Resources
- + Synonyms
- + Programmability

Solution1 - Microsoft SQL Server Management Studio

File Edit View Project Debug Tools Window Help

New Query Generic Debugger

Object Explorer

Connect

. (SQL Server 13.0.1742.0 - DESKTOP-VF50P25\Rami)

- Databases
 - System Databases
 - Database Snapshots
 - AdventureWorks2012
 - Database Diagrams
 - Tables
 - System Tables
 - FileTables
 - External Tables
 - dbo.AWBuildVersion
 - dbo.DatabaseLog
 - dbo.ErrorLog
 - HumanResources.Department
 - HumanResources.Employee
 - HumanResources.EmployeeDepartmentHistory
 - HumanResources.EmployeePayHistory
 - HumanResources.JobCandidate
 - HumanResources.Shift
 - Person.Address
 - Person.AddressType
 - Person.BusinessEntity
 - Person.BusinessEntityAddress
 - Person.BusinessEntityContact
 - Person.ContactType
 - Person.CountryRegion
 - Person.EmailAddress
 - Person.Password
 - Person.Person
 - Person.PersonPhone
 - Person.PhoneNumberType
 - Person.StateProvince
 - Production.BillOfMaterials
 - Production.Culture
 - Production.Document

Output

Solution1 - Microsoft SQL Server Management Studio

File Edit View Project Debug Tools Window Help

New Query Generic Debugger

Object Explorer

Connect

- + Database Snapshots
- + AdventureWorks2012
- + **AdventureWorksDW2012**
- + Company_SD
- + ITI
- + Mansoura_DB
- + MyDW
- + ReportServer
- + ReportServerTempDB
- + sales
- + SD
- + Security
- + Server Objects
- + Replication
- + PolyBase
- + AlwaysOn High Availability
- + Management
- + Integration Services Catalogs
- SQL Server Agent
 - + Jobs
 - J1
 - Mybackup
 - syspolicy_purge_history
 - Job Activity Monitor
 - + Alerts
 - + Operators
 - + Proxies
 - + Error Logs
- . (Microsoft Analysis Server 13.0.1742.0 -)
 - + Databases
 - MultidimensionalProject1
 - MultidimensionalProject10
 - MultidimensionalProject11
 - MultidimensionalProject4
 - MultidimensionalProject6

Solution1 - Microsoft SQL Server Management Studio

File Edit View Project Debug Tools Window Help

New Query Generic Debugger

Object Explorer

Connect

- ReportServer
- ReportServerTempDB
- sales
 - Database Diagrams
 - Tables
 - System Tables
 - FileTables
 - External Tables
 - dbo.ChannelDim
 - dbo.CustomerDim
 - dbo.Fact Sales
 - dbo.ProductDim
 - dbo.SalesmanDim
 - dbo.TimeDim
 - Views
 - External Resources
 - Synonyms
 - Programmability
 - Service Broker
 - Storage
 - Security
 - SD
- Security
- Server Objects
- Replication
- PolyBase
- AlwaysOn High Availability
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Output

New Query Generic Debugger

Object Explorer

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 - + Management
 - + Integration Services Catalogs
 - SQL Server Agent
 - Jobs
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 - Mybackup
 - syspolicy_purge_history
 - Job Activity Monitor

Database Properties - sales

Select a page

 - General
 - Files**
 - Filegroups
 - Options
 - Change Tracking
 - Permissions
 - Extended Properties
 - Mirroring
 - Transaction Log Shipping
 - Query Store

Script ▾ Help

Database name: sales

Owner:

Use full-text indexing

Database files:

Logical Name	File Type	Filegroup	Initial Size (MB)	Autogrowth / Maxsize
sales	ROWS...	PRIMARY	6	By 1 MB, Unlimited
sales_log	LOG	Not Applicable	4	By 10 percent, Limited to 209...

Connection

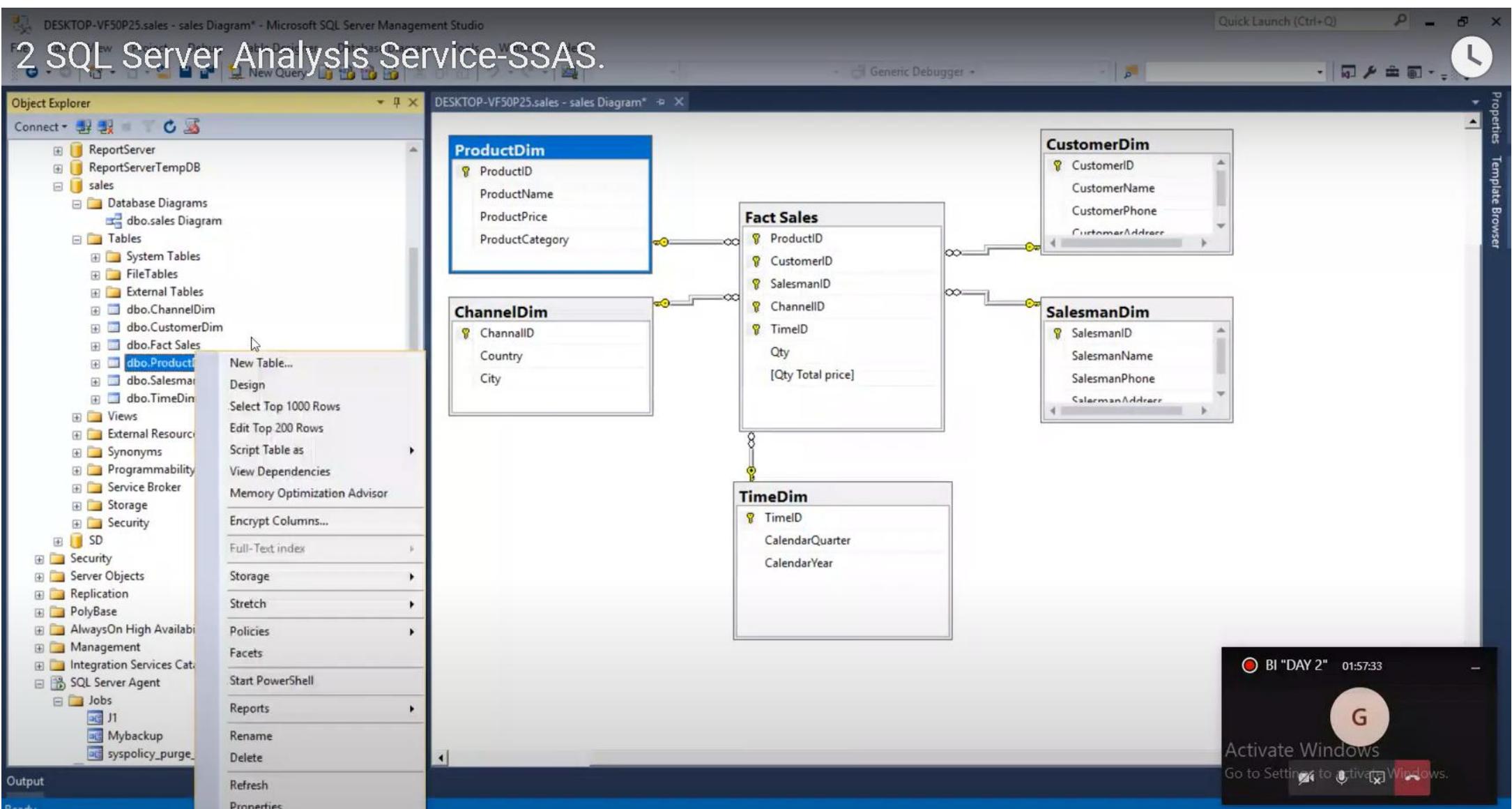
Server: DESKTOP-VF50P25\Ram

View connection properties

Progress

Ready

Add Remove OK Cancel



DESKTOP-VF50P25.sales - dbo.TimeDim - Microsoft SQL Server Management Studio

2 SQL Server Analysis Service-SSAS.

Object Explorer

- ReportServer
- ReportServerTempDB
- sales
 - Database Diagrams
 - dbo.sales Diagram
 - Tables
 - System Tables
 - FileTables
 - External Tables
 - dbo.ChannelDim
 - dbo.CustomerDim
 - dbo.Fact Sales
 - dbo.ProductDim
 - dbo.SalesmanDim
 - dbo.TimeDim
 - Views
 - External Resources
 - Synonyms
 - Programmability
 - Service Broker
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 - Security
 - SD
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 - PolyBase
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 - Integration Services Catalogs
 - SQL Server Agent
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 - Mybackup
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DESKTOP-VF50P25.sales - dbo.TimeDim

TimeID	CalendarQuarter	CalendarYear
1	Quarter1	2007
2	Quarter2	2007
3	Quarter3	2007
4	Quarter4	2007
5	Quarter1	2008
6	Quarter2	2008
7	Quarter3	2008
8	Quarter4	2008
NULL	NULL	NULL

DESKTOP-VF50P25.s... - dbo.CustomerDim

DESKTOP-VF50P25.s... - dbo.ProductDim

DESKTOP-VF50P25.sales - sales Diagram

Properties Template Browser

Quick Launch (Ctrl+Q)

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G

Activate Windows

DESKTOP-VF50P25.sales - dbo.Fact Sales - Microsoft SQL Server Management Studio

File Edit View Project Debug Query Designer Tools Window Help

New Query Generic Debugger

Object Explorer

Connect ReportServer ReportServerTempDB sales Database Diagrams dbo.sales Diagram Tables System Tables FileTables External Tables dbo.ChannelDim dbo.CustomerDim dbo.Fact Sales dbo.ProductDim dbo.SalesmanDim dbo.TimeDim Views External Resources Synonyms Programmability Service Broker Storage Security SD Security Server Objects Replication PolyBase AlwaysOn High Availability Management Integration Services Catalogs SQL Server Agent Jobs J1 Mybackup syspolicy_purge_history

DESKTOP-VF50P25.sales - dbo.Fact Sales DESKTOP-VF50P25.sales - dbo.TimeDim DESKTOP-VF50P25...dbo.CustomerDim DESK

	ProductID	CustomerID	SalesmanID	ChannelID	TimeID	Qty	Qty Total price
1	1	1	1	3	6	10	170
1	1	1	2	1	2	20	300
1	1	2	2	2	7	5	50
1	2	1	1	1	1	10	50
1	2	1	1	1	5	30	300
1	2	1	1	1	6	20	200
1	2	1	1	1	7	10	150
1	2	3	3	3	2	30	320
1	2	3	3	3	8	30	310
1	3	1	1	1	1	20	190
1	3	1	1	1	6	30	300
1	3	2	4	4	7	5	55
1	4	1	1	1	1	20	250
2	1	1	1	1	1	30	500
2	2	1	1	1	8	20	600
2	2	2	1	1	7	30	600
2	2	2	2	2	1	30	600
2	2	2	2	2	8	25	500
2	3	2	1	2	2	40	800
2	3	2	2	2	1	10	300
3	1	1	1	1	5	50	1500
3	1	2	2	2	1	10	300
3	2	3	2	2	1	20	700
3	3	2	1	1	8	10	300
3	3	3	2	2	1	30	2000
3	3	3	3	3	7	15	1000
3	4	3	3	3	1	20	600
4	1	1	1	1	1	20	800

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2 SQL Server Analysis Service-SSAS.

Object Explorer

Connect ▾

- ReportServer
- ReportServerTempDB
- sales**
 - Database Diagrams
 - dbo.sales Diagram
 - Tables
 - System Tables
 - FileTables
 - External Tables
 - dbo.ChannelDim
 - dbo.CustomerDim
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- Integration Services Catalogs
- SQL Server Agent
 - Jobs
 - J1
 - Mybackup
 - syspolicy_purge_history

DESKTOP-VF50P25.sales - dbo.Fact Sales

DESKTOP-VF50P25.sales - dbo.TimeDim

DESKTOP-VF50P25...dbo.CustomerDim

	ProductID	CustomerID	SalesmanID	ChannelID	TimeID	Qty	Qty Total price
1	1	1	1	3	6	10	170
1	1	1	2	1	2	20	300
1	1	1	2	2	7	5	50
1	1	2	1	1	1	10	50
1	1	2	1	1	5	30	300
1	1	2	1	1	6	20	200
1	1	2	1	1	7	10	150
1	1	2	3	3	2	30	320
1	1	2	3	3	8	30	310
1	1	3	1	1	1	20	190
1	1	3	1	1	6	30	300
1	1	3	2	4	7	5	55
1	1	4	1	1	1	20	250
2	1	1	1	1	1	30	500
2	1	2	1	1	8	20	600
2	2	2	2	1	7	30	600
2	2	2	2	2	1	30	600
2	2	2	2	2	8	25	500
2	2	3	2	1	2	40	800
2	2	3	2	2	1	10	300
3	1	1	1	1	5	50	1500
3	1	1	2	2	1	10	300
3	2	3	2	2	1	20	700
3	3	2	2	1	8	10	300
3	3	3	3	2	1	30	2000
3	3	3	3	3	7	15	1000
3	3	4	3	3	1	20	600
4	1	1	1	1	1	20	800

2 SQL Server Analysis Service-SSAS.

Object Explorer

Connect ▾ ReportServer ReportServerTempDB sales

All Apps Documents Web More ▾

Best match

- Microsoft SQL Server Management Studio App

Apps

- SQL Server Data Tools 2015
 - Rulas administrator
- SQL Server 2016 Pro
- SQL Server 2016 Dep
- SQL Server 2016 Dat
- SQL Server 2016 SSIS Wizard
- SQL Server 2016 Error and Usage Reporting
- SQL Server 2016 Project Conversion Wizard

Search work and web

sql server - See work and web results

Folders (2+)

sql server

DESKTOP-VF50P25.sales - dbo.Fact Sales

DESKTOP-VF50P25.sales - dbo.TimeDim

DESKTOP-VF50P25...dbo.CustomerDim

ProductID	CustomerID	SalesmanID	ChannelID	TimeID	Qty	Qty Total price
1	1	1	3	6	10	170
1	1	2	1	2	20	300
1	1	2	2	7	5	50
				1	10	50
				5	30	300
				6	20	200
				7	10	150
				2	30	320
				8	30	310
				1	20	190
				6	30	300
				7	5	55
				1	20	250
				1	30	500
				8	20	600
				7	30	600
				1	30	600
				8	25	500
				2	40	800
				1	10	300
				5	50	1500
				1	10	300
				1	20	700
				8	10	300
				1	30	2000
				7	15	1000
				1	20	600
				1	20	800

Microsoft SQL Server Management Studio App

Open

Recent

- Pivot and Group.sql
- Adv1.sql - in Desktop
- Adv1.sql - in Downloads
- Adv1.sql - in SQL Server Management Studio
- SQLQuery1.sql - in SQL Server Management Studio
- SQLQuery2.sql
- XML.sql
- Cursor.sql

2 SQL Server Analysis Service-SSAS.

Services (Local)

SQL Server Analysis Services (MSSQLSERVER)

[Stop the service](#) [Pause the service](#) [Restart the service](#)

Description:
Supplies online analytical processing (OLAP) and data mining functionality for business intelligence applications.

Name	Description	Status	Startup Type	Log On As
Sensor Data Service	Delivers dat...	Running	Manual (Trigg...	Local System
Sensor Monitoring Service	Monitors va...	Running	Manual (Trigg...	Local Service
Sensor Service	A service for...	Running	Manual (Trigg...	Local System
Server		Running	Automatic	\Rami
Shared PC Account Manager		Running	Automatic	\Rami
Shell Hardware Detection		Running	Automatic	\Rami
Smart Card		Running	Automatic	\Rami
Smart Card Device Enumeration Service		Running	Automatic	\Rami
Smart Card Removal Policy		Running	Automatic	\Rami
SNMP Service		Running	Automatic	\Rami
SNMP Trap		Running	Automatic	\Rami
Software Protection		Running	Automatic	\Rami
Spatial Data Service		Running	Automatic	\Rami
Spot Verifier		Running	Automatic	\Rami
SQL Server (ALEX)		Running	Automatic	\Rami
SQL Server (CAIRO)		Running	Automatic	\Rami
SQL Server (ISMAILIA)		Running	Automatic	\Rami
SQL Server (MANSOURA)		Running	Automatic	\Rami
SQL Server (MSSQLSERVER)		Running	Automatic	\Rami
SQL Server Agent (ALEX)		Running	Automatic	\Rami
SQL Server Agent (CAIRO)		Running	Automatic	\Rami
SQL Server Agent (ISMAILIA)		Running	Automatic	\Rami
SQL Server Agent (MANSOURA)		Running	Automatic	\Rami
SQL Server Agent (MSSQLSERVER)		Running	Automatic	\Rami
SQL Server Analysis Services (MSSQLSER...		Running	Automatic	NT Service\...
SQL Server Analysis Services CEIP (MSSC...		Running	Automatic	Local Service
SQL Server Browser	CEIP service ...	Running	Automatic	NT Service\...
SQL Server CEIP service (ALEX)	CEIP service ...	Running	Automatic	NT Service\...
SQL Server CEIP service (CAIRO)	CEIP service ...	Running	Automatic	NT Service\...
SQL Server CEIP service (ISMAILIA)	CEIP service ...	Running	Automatic	NT Service\...
SQL Server CEIP service (MANSOURA)	CEIP service ...	Running	Automatic	NT Service\...
SQL Server CEIP service (MSSQLSERVER)	CEIP service ...	Running	Automatic	NT Service\...
SQL Server Integration Services 13.0	Provides ma...	Running	Automatic	NT Service\...
SQL Server Integration Services CEIP service 13.0	CEIP service ...	Running	Automatic	NT Service\...

Extended / Standard

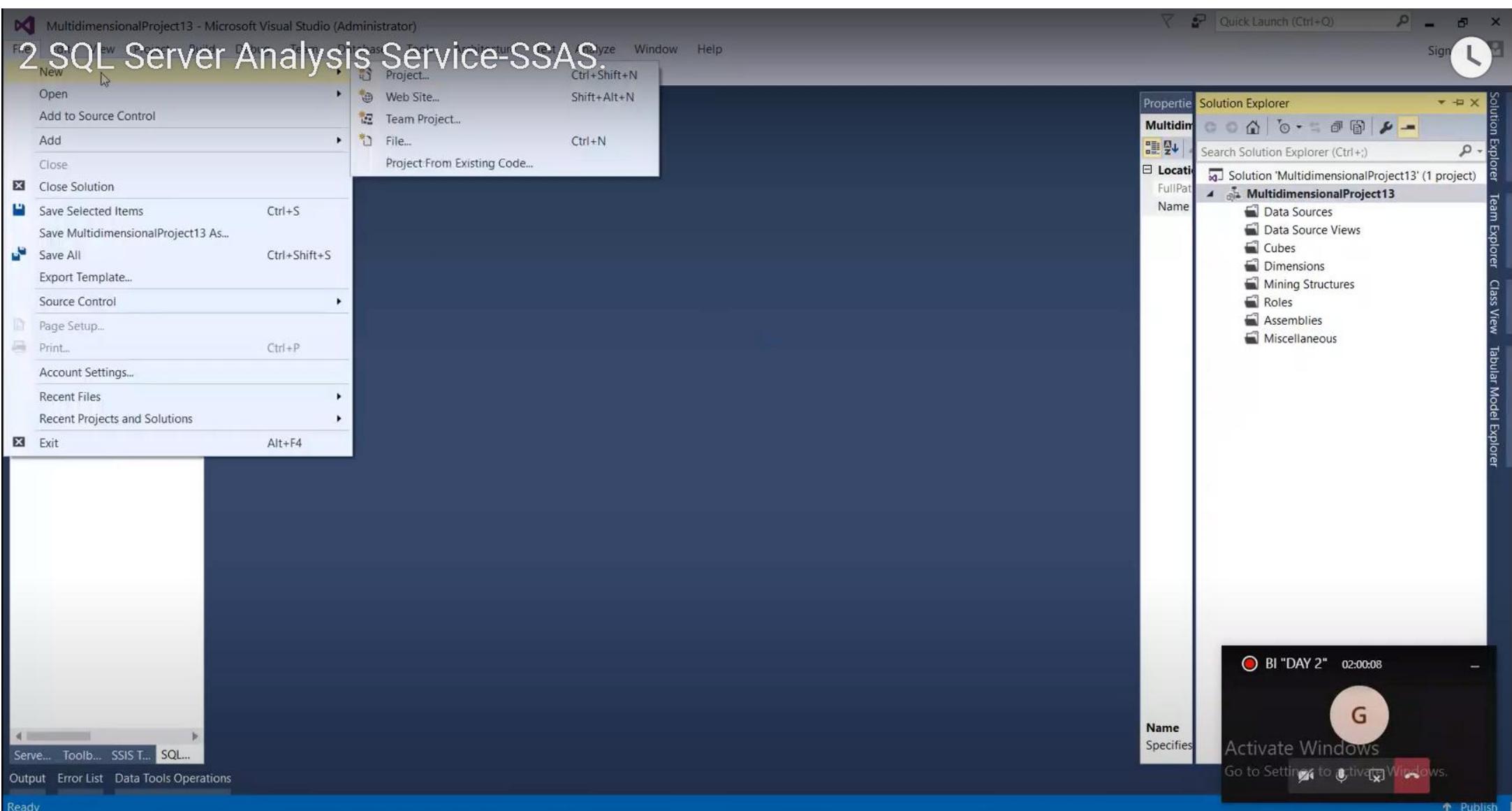
SQL Server Analysis Services (MSSQLSERVER) Properties (Local Co... X

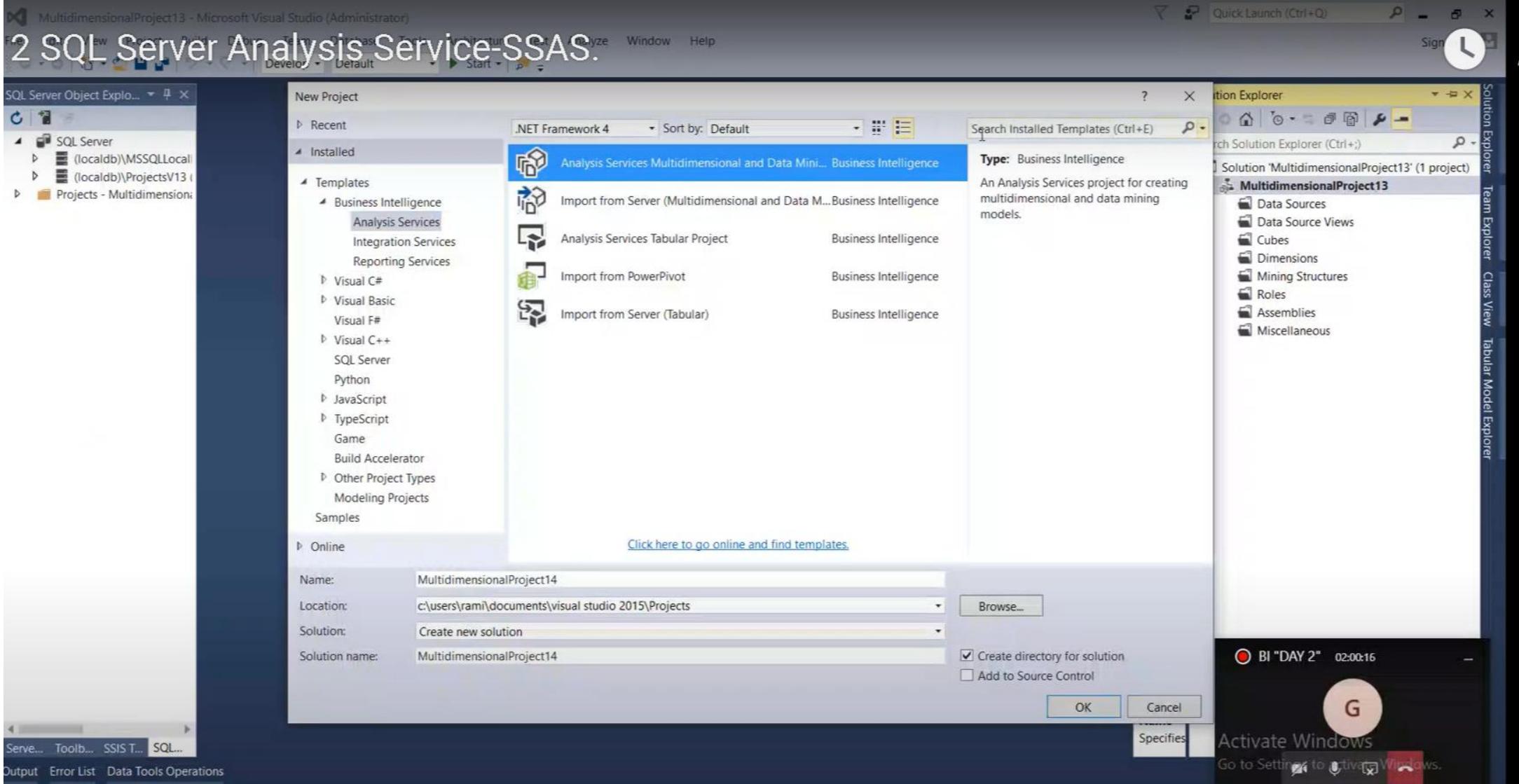
General Log On Recovery Dependencies

Log on as:

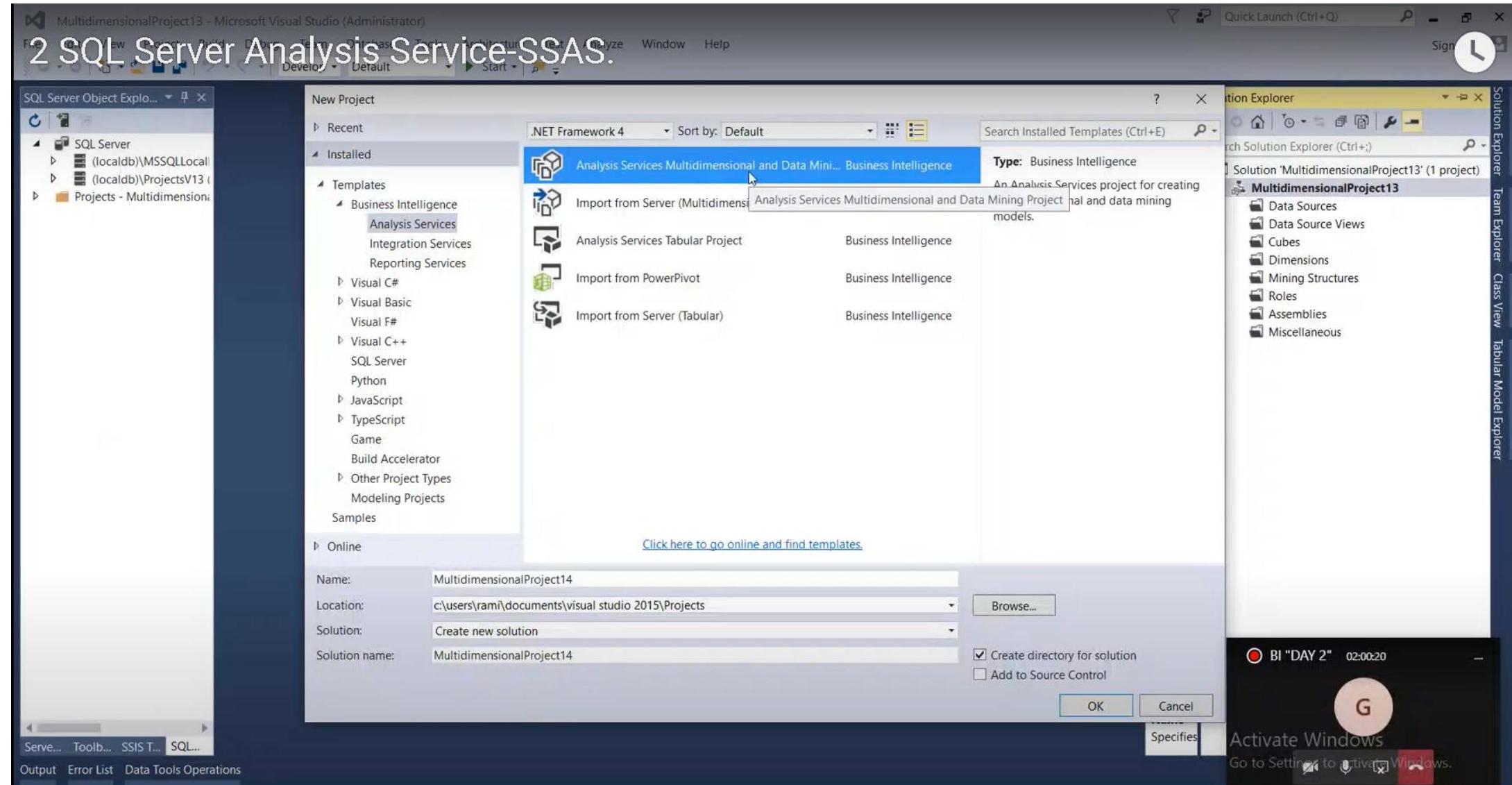
Local System account
 This account: .\Rami

Password: Confirm password:





2 SQL Server Analysis Service-SSAS.



2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File View Project Tools Database Test Architecture Analyze Window Help

SQL Server Object Explorer

Solution Explorer

Team Explorer

Class View

Tabular Model Explorer

Quick Launch (Ctrl+Q)

Sign In

Activate Windows
Go to Settings to activate Windows.

Output Error List Data Tools Operations

This item does not support previewing

Publish

Data Source Wizard

Select how to define the connection

You can select from a number of ways in which your data source will define its connection string.

Create a data source based on an existing or new connection

Data connections: LocalHostITI LocalHostsales

Data connection properties:

Property	Value
Data Source	.
Initial Catalog	ITI
Integrated Security	SSPI
Provider	SQLNCLI11.1

New... Delete

Create a data source based on another object

< Back Next > Finish >> Cancel

LocalHostITI

localhostsales

Property Value

Data Source .

Initial Catalog ITI

Integrated Security SSPI

Provider SQLNCLI11.1

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File Edit View Project Build Debug Team Database Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q) Sign in

SQL Server Object Explor... Default Start

Develop Default

Connection Manager

Provider: Native OLE DB\SQL Server Native Client 11.0

Connection All

Server name: Refresh

Log on to the server

Authentication: Windows Authentication

User name:

Password: Save my password

Connect to a database

Select or enter a database name:

Attach a database file: Browse...

Logical name:

Test Connection OK Cancel Help

Solution Explorer

Search Solution Explorer (Ctrl+;) MultidimensionalProject14 (1 project)

MultidimensionalProject14 Data Sources

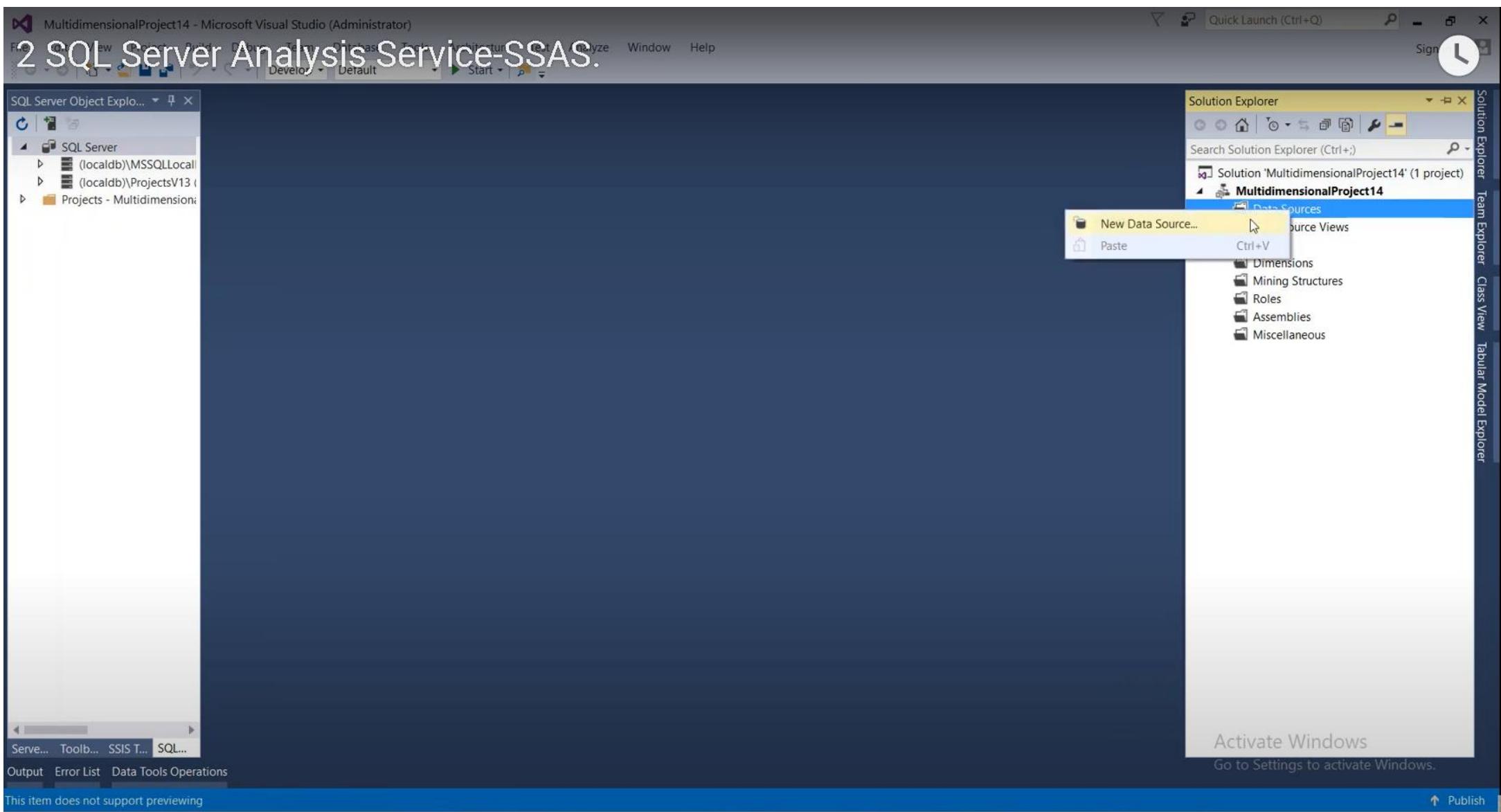
- Data Source Views
- Cubes
- Dimensions
- Mining Structures
- Roles
- Assemblies
- Miscellaneous

Team Explorer Class View Tabular Model Explorer

Activate Windows Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL... Output Error List Data Tools Operations

This item does not support previewing Publish



MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File Edit View Project Build Debug Team Database Tools Architecture Test Analyze Window Help

Develop Default Start

SQL Server Object Explor... X

SQL Server

- (localdb)\MSSQLLocalDB
- (localdb)\ProjectsV13

Projects - Multidimensional

Connection Manager

Provider: Native OLE DB\SQL Server Native Client 11.0

Server name: . Refresh

Log on to the server

Authentication: Windows Authentication

User name: Password: Save my password

Connect to a database

Select or enter a database name:

- AdventureWorks2012
- AdventureWorksDW2012
- Company_SD
- ITI
- Mansoura_DB
- master
- model
- msdb
- MyDW
- ReportServer
- ReportServerTempDB
- sales
- SD
- tempdb

Test Connection

Serve... Toolbars... SSIS T... SQL...

Output Error List Data Tools Operations

This item does not support previewing

Quick Launch (Ctrl+Q) Sign in

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

Solution 'MultidimensionalProject14' (1 project)

MultidimensionalProject14

- Data Sources
 - Data Source Views
 - Cubes
 - Dimensions
 - Mining Structures
 - Roles
 - Assemblies
 - Miscellaneous

Team Explorer Class View Tabular Model Explorer

Activate Windows Go to Settings to activate Windows.

Publish

The screenshot shows the Microsoft Visual Studio interface with the 'MultidimensionalProject14' solution open. In the center, the 'Connection Manager' dialog is displayed, allowing configuration for connecting to a SQL Server database. The 'Provider' dropdown is set to 'Native OLE DB\SQL Server Native Client 11.0'. The 'Server name' field contains a dot ('.') indicating the local machine. The 'Authentication' dropdown is set to 'Windows Authentication'. Below these fields, there are input boxes for 'User name' and 'Password', and a checked 'Save my password' checkbox. Under the 'Connect to a database' section, a radio button is selected for 'Select or enter a database name', and a dropdown menu lists several database names: AdventureWorks2012, AdventureWorksDW2012, Company_SD, ITI, Mansoura_DB, master, model, msdb, MyDW, ReportServer, ReportServerTempDB, sales, SD, and tempdb. The 'tempdb' option is currently highlighted with a blue selection bar. At the bottom of the dialog is a 'Test Connection' button. To the right of the dialog, the 'Solution Explorer' window is visible, showing the project structure with 'MultidimensionalProject14' expanded to show its data sources. The status bar at the bottom of the screen displays the message 'This item does not support previewing'.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File Edit View Project Build Debug Team Database Tools Architecture Test Analyze Window Help

Develop Default Start

Quick Launch (Ctrl+Q) Sign in

SQL Server Object Explor... X

SQL Server (localdb)\MSSQLLocalDB (localdb)\ProjectsV13 Projects - Multidimensional

Connection Manager

Provider: Native OLE DB\SQL Server Native Client 11.0

Connection

All

Server name: . Refresh

Log on to the server

Authentication: Windows Authentication

User name: []

Password: [] Save my password

Connect to a database

Select or enter a database name: sales

Attach a database file: Browse... Logical name: []

Test Connection OK Cancel Help

Solution Explorer

Search Solution Explorer (Ctrl+;)

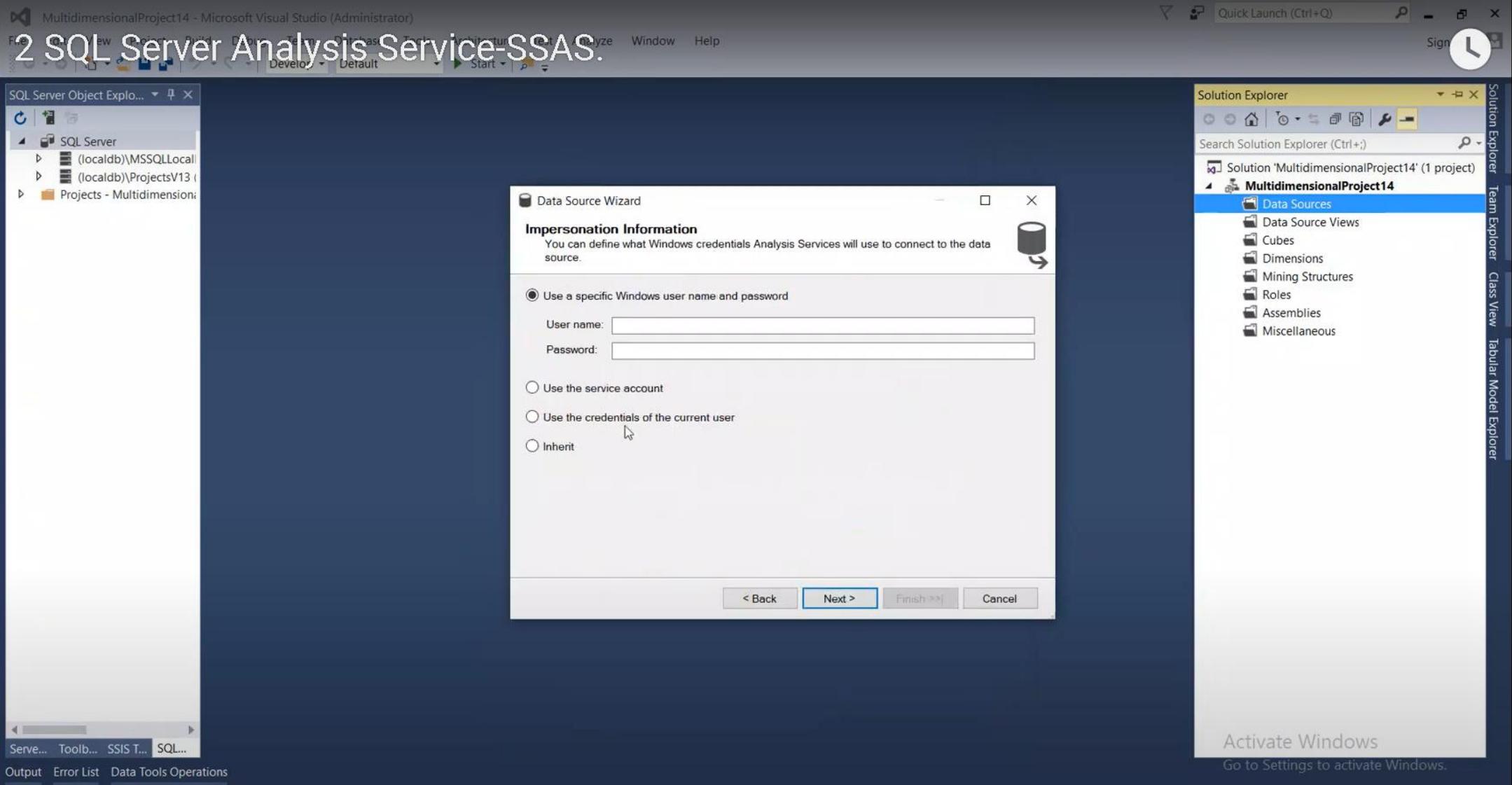
Solution 'MultidimensionalProject14' (1 project)

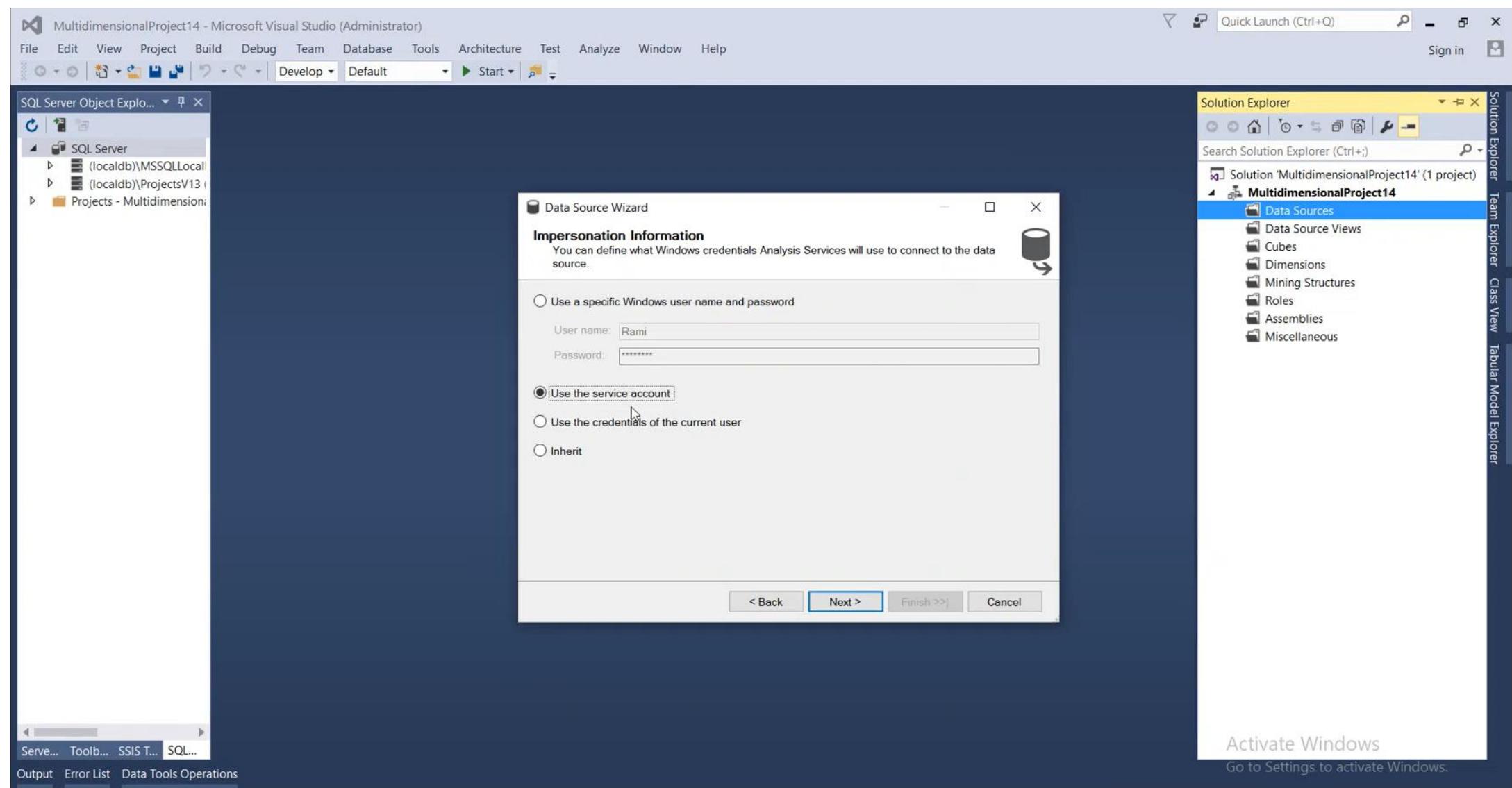
MultidimensionalProject14

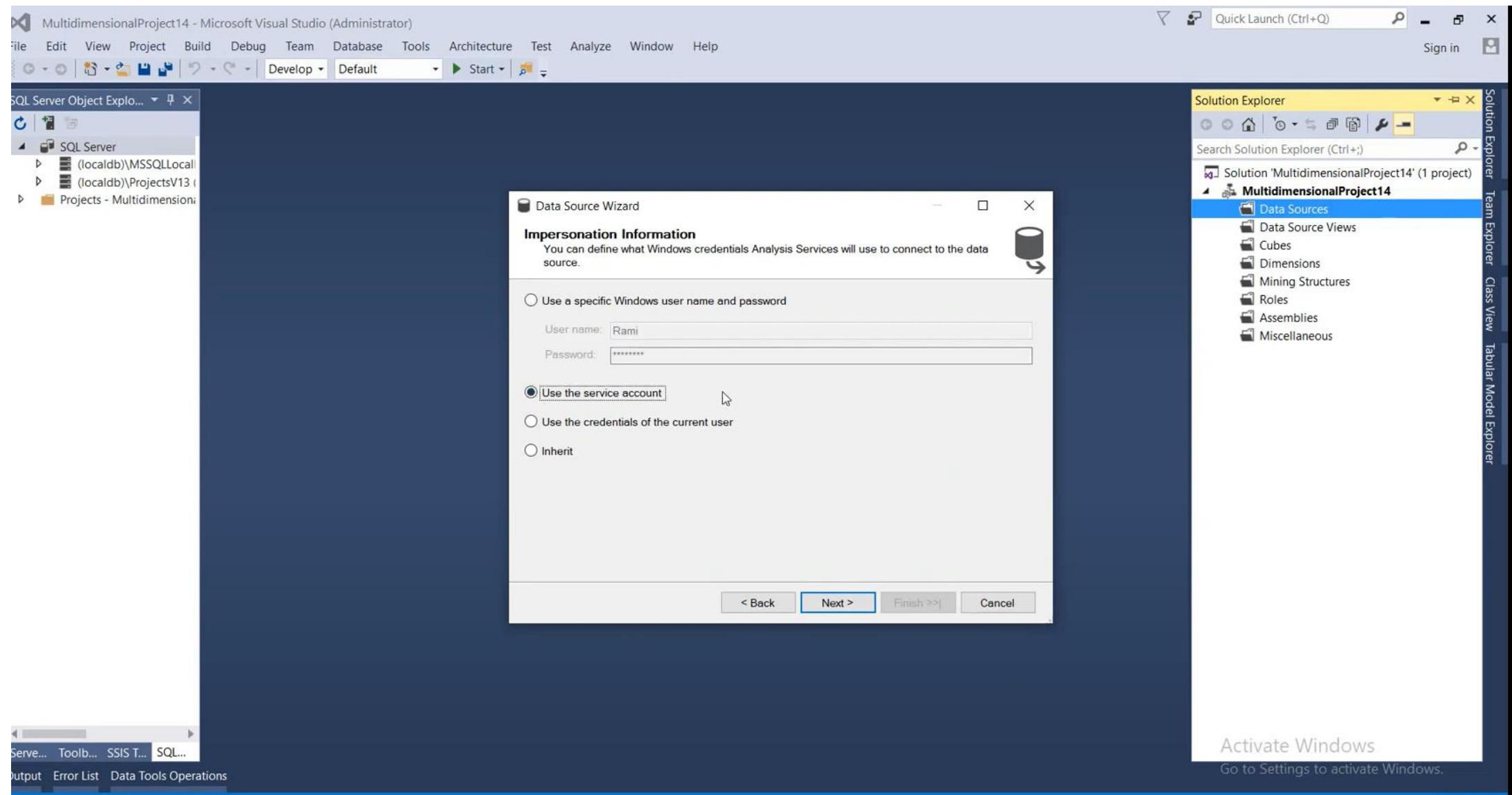
Data Sources Data Source Views Cubes Dimensions Mining Structures Roles Assemblies Miscellaneous

Team Explorer Class View Tabular Model Explorer

Activate Windows Go to Settings to activate Windows.







2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File Edit View Tools Analyze Window Help

SQL Server Object Explorer

SQL Server (localdb)\MSSQLLocalDB
(localdb)\ProjectsV13
Projects - Multidimensional

Data Source Designer

General Impersonation Information

Data source name: Sales

Provider:

Connection string: Provider=SQLNCLI11.1;Data Source=.;Integrated Security: Edit...

Data source references

Maintain a reference to another object in the solution

Create a data source based on an existing data source

Isolation: ReadCommitted

Query timeout: 0 seconds

Maximum number of connections: 10

Data source description:

OK Cancel Help

Solution Explorer

Search Solution Explorer (Ctrl+.)

Solution 'MultidimensionalProject14' (1 project)

MultidimensionalProject14

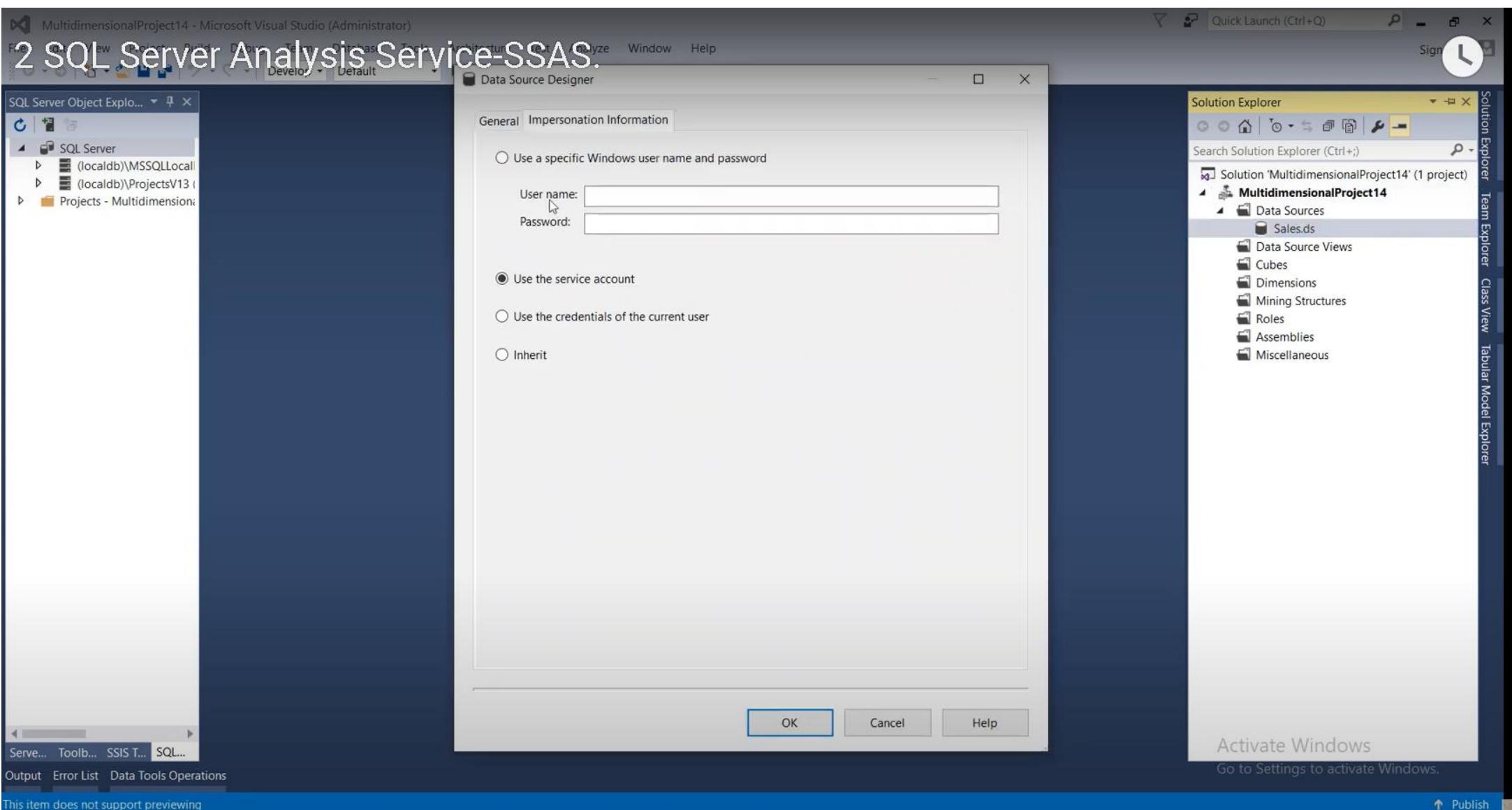
- Data Sources
 - Sales.ds
 - Data Source Views
 - Cubes
 - Dimensions
 - Mining Structures
 - Roles
 - Assemblies
 - Miscellaneous

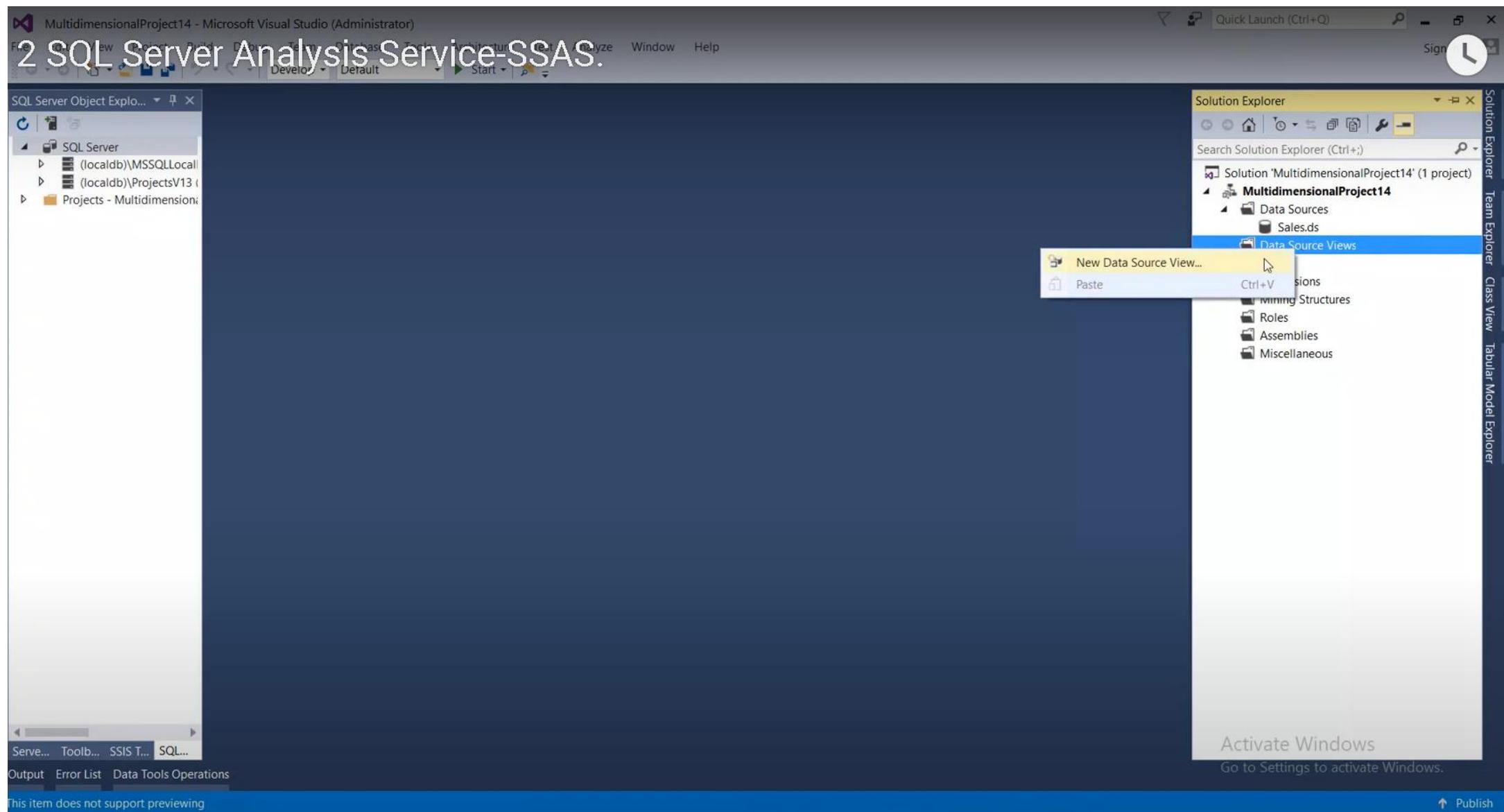
Team Explorer Class View Tabular Model Explorer

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL...
Output Error List Data Tools Operations
This item does not support previewing Publish

The screenshot displays the Microsoft Visual Studio interface for a Multidimensional Project named 'MultidimensionalProject14'. The main window shows the 'Data Source Designer' dialog for a data source named 'Sales'. The 'General' tab is selected, showing the connection string 'Provider=SQLNCLI11.1;Data Source=.;Integrated Security:' and various configuration options like Isolation level (ReadCommitted), Query timeout (0 seconds), and Maximum number of connections (10). The 'Solution Explorer' pane on the right lists the project structure, including the 'Sales.ds' data source under the 'Data Sources' node. The status bar at the bottom indicates that the item does not support previewing.





2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Open Recent Tools Options Architecture Analyze Window Help

SQL Server Object Explorer

SQL Server (localdb)\MSSQLLocalDB (localdb)\ProjectsV13 Projects - Multidimensional

Data Source View Wizard

Welcome to the Data Source View Wizard

Use this wizard to create a new data source view.

You create a data source view from tables and views in a relational database.

A data source provides a simple connection to a relational database. Use a data source view for more advanced features, such as caching metadata, adding relationships, creating calculations, and setting logical keys.

Don't show this page again

< Back Next > Finish >> Cancel

Serve... Toolbar SSIS T... SQL... Output Error List Data Tools Operations

This item does not support previewing

Quick Launch (Ctrl+Q) Sign In

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

Solution 'MultidimensionalProject14' (1 project)

- MultidimensionalProject14
 - Data Sources
 - Sales.ds
 - Data Source Views
 - Cubes
 - Dimensions
 - Mining Structures
 - Roles
 - Assemblies
 - Miscellaneous

Team Explorer Class View Tabular Model Explorer

Activate Windows Go to Settings to activate Windows.

Publish

2 SQL Server Analysis Service-SSAS.

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

Solution 'MultidimensionalProject14' (1 project)

MultidimensionalProject14

- Data Sources
- Sales.ds
- Data Source Views
- Cubes
- Dimensions
- Mining Structures
- Roles
- Assemblies
- Miscellaneous

SQL Server Object Explor...

File New Open Recent Database Tools Data Windows Help

Start

SQL Server Object Explorer

SQL Server

- (localdb)\MSSQLLocalDB
- (localdb)\ProjectsV13
- Projects - Multidimensional

Data Source View Wizard

Select a Data Source

Select an existing relational data source or create a new one.

Relational data sources:

- Sales

Data source properties:

Property	Value
Data Source	sales
Initial Catalog	sales
Integrated Security	SSPI
Provider	SQLNCLI11.1

New Data Source... Advanced...

< Back Next >> Finish >> Cancel

Activate Windows
Go to Settings to activate Windows.

Server... Toolbar... SSIS T... SQL...
Output Error List Data Tools Operations
This item does not support previewing
Publish

2 SQL Server Analysis Service-SSAS:

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

SQL Server Object Explor... Solution Explorer

SQL Server Solution 'MultidimensionalProject14' (1 project)

Projects - MultidimensionalProject14

(localdb)\MSSQLLocalDB

(localdb)\ProjectsV13

Sales.ds

Data Source Views

Cubes

Dimensions

Mining Structures

Roles

Assemblies

Miscellaneous

Quick Launch (Ctrl+Q) Sign In

Start Default

Data Source View Wizard

Select Tables and Views

Select objects from the relational database to be included in the data source view.

Available objects:

Name	Type
ChannelDim (dbo)	Table
CustomerDim (dbo)	Table
SalesmanDim (dbo)	Table
sysdiagrams (dbo)	Table

Included objects:

Name	Type
Fact Sales (dbo)	Table
ProductDim (dbo)	Table
TimeDim (dbo)	Table

> < >> <<

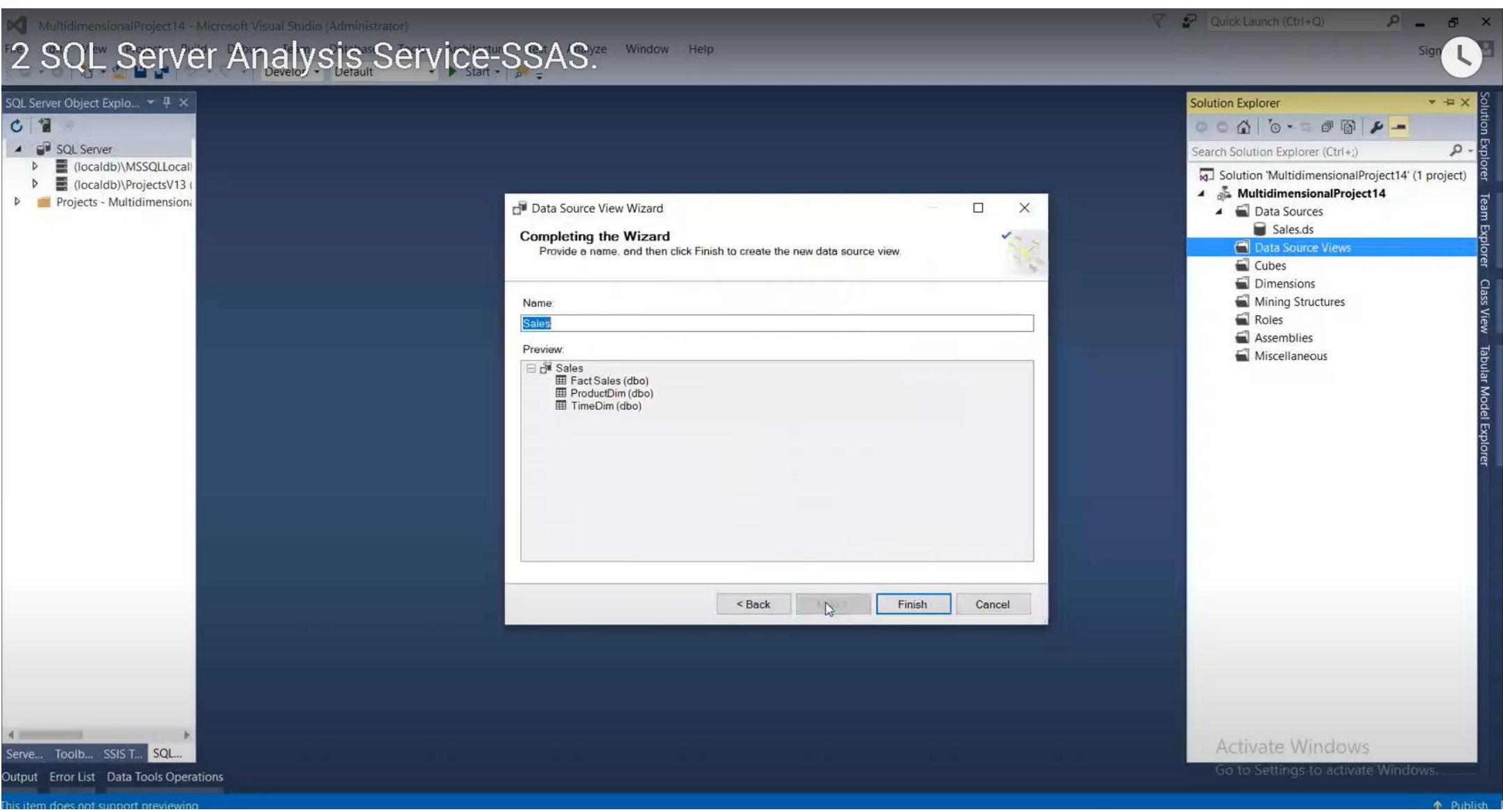
Filter: Add Related Tables

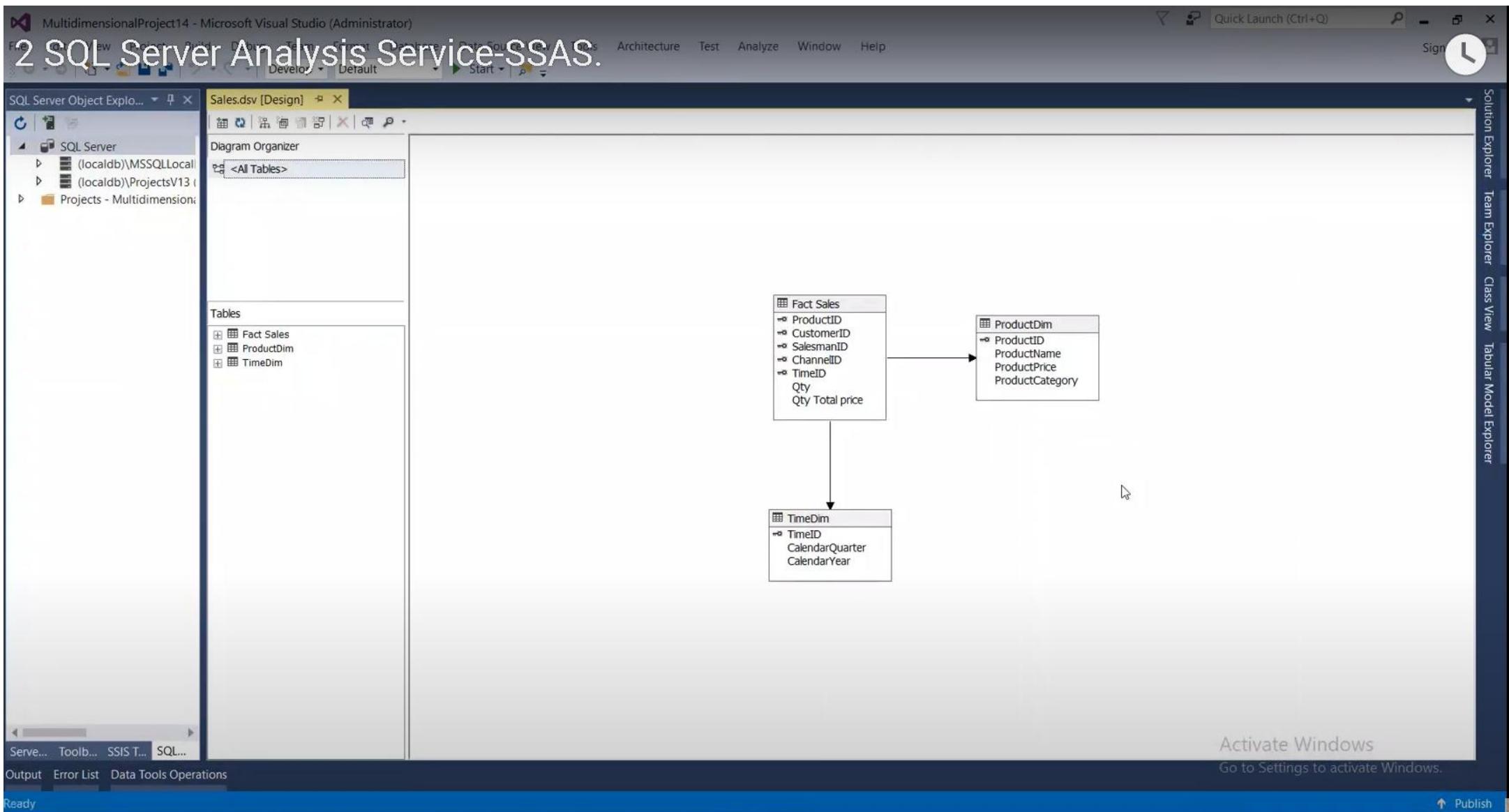
Show system objects

< Back Next > Finish >> Cancel

Activate Windows
Go to Settings to activate Windows.

Server... Tools... SSIS T... SQL...
Output Error List Data Tools Operations
This item does not support previewing Publish





2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

SQL Server Object Explor... Sales.ds [Design] Diagram Organizer

Solution Explorer

Diagram Organizer

Tables

Fact Sales

ProductDim

TimeDim

Fact Sales

ProductID
CustomerID
SalesmanID
ChannelID
TimeID
Qty
Qty Total price

ProductDim

ProductID
ProductName
ProductPrice
ProductCategory

TimeDim

TimeID
CalendarQuarter
CalendarYear

Cubes

New Cube...

Ctrl+V

Activate Windows

Go to Settings to activate Windows.

Output Error List Data Tools Operations

This item does not support previewing

Publish

```
graph TD; FactSales[Fact Sales] --> ProductDim[ProductDim]; FactSales --> TimeDim[TimeDim]
```

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Project... Recent File Tools Analyze Window Help

SQL Server Object Explorer [Sales.dsv [Design]]

Diagram Organizer

Tables

- Fact Sales
- ProductDim
- TimeDim

Cube Wizard

Select Creation Method

Cubes can be created by using existing tables, creating an empty cube, or generating tables in the data source.

How would you like to create the cube?

Use existing tables

Create an empty cube

Generate tables in the data source

Template:

(None)

Description:

Create a cube based on one or more tables in a data source.

< Back Next > [Finish, 20] Cancel

Solution Explorer

Search Solution Explorer (Ctrl+.)

Solution 'MultidimensionalProject14' (1 project)

- MultidimensionalProject14
 - Data Sources
 - Sales.ds
 - Data Source Views
 - Sales.dsv
 - Cubes
 - Dimensions
 - Mining Structures
 - Roles
 - Assemblies
 - Miscellaneous

Activate Windows

Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL...

Output Error List Data Tools Operations

This item does not support previewing

Publish

The screenshot shows the Microsoft Visual Studio interface for creating a cube in SSAS. The main window displays the 'Cube Wizard' dialog box, which is the first step in the process. The dialog box is titled 'Select Creation Method' and provides three options for creating a cube: 'Use existing tables', 'Create an empty cube', and 'Generate tables in the data source'. The 'Use existing tables' option is selected. Below this, there is a 'Template' dropdown menu set to '(None)'. A 'Description' text area contains the placeholder text 'Create a cube based on one or more tables in a data source.'. At the bottom of the dialog box are buttons for navigating through the wizard: '< Back', 'Next >', '[Finish, 20]', and 'Cancel'. To the left of the dialog box, the 'SQL Server Object Explorer' shows a database structure with tables like 'Fact Sales', 'ProductDim', and 'TimeDim'. To the right, the 'Solution Explorer' lists the project structure, including 'MultidimensionalProject14' with its components like 'Data Sources', 'Data Source Views', and 'Cubes'. The 'Cubes' node is currently selected. The status bar at the bottom indicates that the item does not support previewing.

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Open Recent Database Tools Analyze Window Help

SQL Server Object Explor... Sales.dsv [Design] Diagram Organizer <All Tables>

Diagram Organizer

Tables

- Fact Sales
- ProductDim
- TimeDim

Cube Wizard

Welcome to the Cube Wizard

Use this wizard to create a new cube. First, you select the data source view and tables for the cube, and then you set its properties. You can also opt to create a cube without using a data source.

Don't show this page again

Back Next > Finish > Cancel

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

Solution 'MultidimensionalProject14' (1 project)

- MultidimensionalProject14
 - Data Sources
 - Sales.ds
 - Data Source Views
 - Sales.dsv
 - Cubes
 - Dimensions
 - Mining Structures
 - Roles
 - Assemblies
 - Miscellaneous

Team Explorer Class View Tabular Model Explorer

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL... Output Error List Data Tools Operations

This item does not support previewing

Publish

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Open Recent Tools Analyze Window Help

SQL Server Object Explorer Sales.dsv [Design]

Diagram Organizer <All Tables>

Tables Fact Sales ProductDim TimeDim

Cube Wizard

Select Creation Method Cubes can be created by using existing tables, creating an empty cube, or generating tables in the data source.

How would you like to create the cube?

Use existing tables

Create an empty cube

Generate tables in the data source

Template: (None)

Description: Create a cube based on one or more tables in a data source.

< Back Next > Finish Cancel

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F) P

Solution 'MultidimensionalProject14' (1 project)

MultidimensionalProject14

- Data Sources Sales.ds
- Data Source Views Sales.dsv
- Cubes
- Dimensions
- Mining Structures
- Roles
- Assemblies
- Miscellaneous

Team Explorer Class View Tabular Model Explorer

Activate Windows Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL... Output Error List Data Tools Operations

This item does not support previewing

Publish

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Open Recent Tools Analyze Window Help

SQL Server Object Explorer Sales.dsv [Design]

Solution Explorer Solution Explorer

Sales.dsv [Design]

Cube Wizard

Select Measure Group Tables

Select a data source view or diagram and then select the tables that will be used for measure groups.

Data source view: Sales

Measure group tables:

- Fact Sales
- ProductDim
- TimeDim

Suggest

At least one measure group table must be selected.

< Back Next > Finish >> Cancel

Serve... Toolbar SSIS T... SQL... Output Error List Data Tools Operations

This item does not support previewing

Activate Windows Go to Settings to activate Windows.

Publish

Detailed description: This screenshot shows the Microsoft Visual Studio interface for creating a multidimensional cube. A 'Cube Wizard' dialog box is open, specifically the 'Select Measure Group Tables' step. It displays a list of tables from a data source view named 'Sales'. Three tables are listed: Fact Sales, ProductDim, and TimeDim. A warning message at the bottom states 'At least one measure group table must be selected.' The 'Solution Explorer' pane on the right shows the project structure, including a 'Cubes' node under 'MultidimensionalProject14'. The 'Tables' node in the 'Diagram Organizer' on the left lists Fact Sales, ProductDim, and TimeDim.

2 SQL Server Analysis Service-SSAS.

Sales.dsv [Design]

Diagram Organizer

Cube Wizard

Select Measure Group Tables

Select a data source view or diagram and then select the tables that will be used for measure groups.

Data source view:
Sales

Measure group tables:

- Fact Sales
- ProductDim
- TimeDim

Suggest

Fact Sales

- productID
- customerID
- salesmanID
- channelID
- itemID
- qty
- total price

ProductDim

- ProductID
- ProductName
- ProductPrice
- ProductCategory

TimeDim

- timeID
- calendarQuarter
- calendarYear

< Back Next > Finish >> Cancel

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

Solution 'MultidimensionalProject14' (1 project)

- MultidimensionalProject14
 - Data Sources
 - Sales.ds
 - Data Source Views
 - Sales.dsv
 - Cubes
 - Dimensions
 - Mining Structures
 - Roles
 - Assemblies
 - Miscellaneous

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL... Output Error List Data Tools Operations

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Open Recent Tools Database Test Analyze Window Help

SQL Server Object Explorer Sales.dsv [Design] Diagram Designer

Select Measures

Select measures that you want to include in the cube.

Measure

Fact Sales

- Qty
- Qty Total Price
- Fact Sales Count

< Back Next > Finish >> Cancel

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

Solution 'MultidimensionalProject14' (1 project)

- MultidimensionalProject14
 - Data Sources
 - Sales.ds
 - Data Source Views
 - Sales.dsv
 - Cubes
 - Dimensions
 - Mining Structures
 - Roles
 - Assemblies
 - Miscellaneous

Diagram Organizer

Fact Sales

- ProductID
- CustomerID
- SalesmanID
- ChannelID
- TimeID
- Qty
- Qty Total price

ProductDim

- ProductID
- ProductName
- ProductPrice
- ProductCategory

TimeDim

- TimeID
- CalendarQuarter
- CalendarYear

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL...
Output Error List Data Tools Operations
This item does not support previewing
Publish

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

SQL Server Object Explor... Sales.dsv [Design] Diagram Organizer

Cube Wizard

Select Measures
Select measures that you want to include in the cube.

Measure

Fact Sales

Qty

Qty Total Price

Fact Sales Count

< Back Next > Finish >> Cancel

Fact Sales

- ProductID
- CustomerID
- SalesmanID
- ChannelID
- TimeID
- Qty
- Qty Total price

ProductDim

- ProductID
- ProductName
- ProductPrice
- ProductCategory

TimeDim

- TimeID
- CalendarQuarter
- CalendarYear

Solution Explorer

Solution 'MultidimensionalProject14' (1 project)

- MultidimensionalProject14
 - Data Sources
 - Sales.ds
 - Data Source Views
 - Sales.dsv
 - Cubes
 - Dimensions
 - Mining Structures
 - Roles
 - Assemblies
 - Miscellaneous

Activate Windows
Go to Settings to activate Windows.

Output Error List Data Tools Operations

This item does not support previewing

Publish

```
graph TD; FactSales[Fact Sales] --> ProductDim[ProductDim]; FactSales --> TimeDim[TimeDim];
```

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Project Build Tools Database Tools Analyze Window Help

SQL Server Object Explorer Sales.dsv [Design] Diagram Organizer

Cube Wizard

Select Measure Group Tables

Select a data source view or diagram and then select the tables that will be used for measure groups.

Data source view: Sales

Measure group tables:

- Fact Sales
- ProductDim
- TimeDim

Suggest

< Back Next > Finish >> Cancel

Fact Sales

- ProductID
- CustomerID
- SalesmanID
- ChannelID
- TimeID
- Qty
- Qty Total price

ProductDim

- ProductID
- ProductName
- ProductPrice
- ProductCategory

TimeDim

- TimeID
- CalendarQuarter
- CalendarYear

Solution Explorer

Search Solution Explorer (Ctrl+F)

Solution 'MultidimensionalProject14' (1 project)

- MultidimensionalProject14
 - Data Sources
 - Sales.ds
 - Data Source Views
 - Sales.dsv
 - Cubes
 - Dimensions
 - Mining Structures
 - Roles
 - Assemblies
 - Miscellaneous

Team Explorer Class View Tabular Model Explorer

Activate Windows
Go to Settings to activate Windows.

Server... Toolbars... SSIS T... SQL...

Output Error List Data Tools Operations

this item does not support previewing

Publish

```
graph TD; FactSales[Fact Sales] --> ProductDim[ProductDim]; FactSales --> TimeDim[TimeDim]
```

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

SQL Server Object Explorer

Sales.dsv [Design]

Diagram Designer

Select Measures

Select measures that you want to include in the cube.

Measure

Fact Sales

- Qty
- Qty Total Price
- Fact Sales Count

Next >

Finish >>

Cancel

Diagram Designer

```
graph TD; FactSales[Fact Sales] --> ProductDim[ProductDim]; FactSales --> TimeDim[TimeDim];
```

Fact Sales

- ProductID
- CustomerID
- SalesmanID
- ChannelID
- TimeID
- Qty
- Qty Total price

ProductDim

- ProductID
- ProductName
- ProductPrice
- ProductCategory

TimeDim

- TimeID
- CalendarQuarter
- CalendarYear

Solution Explorer

Search Solution Explorer (Ctrl + F)

Solution 'MultidimensionalProject14' (1 project)

- MultidimensionalProject14
 - Data Sources
 - Sales.ds
 - Data Source Views
 - Sales.dsv
 - Cubes
 - Dimensions
 - Mining Structures
 - Roles
 - Assemblies
 - Miscellaneous

Team Explorer

Class View

Tabular Model Explorer

Activate Windows

Go to Settings to activate Windows.

Output Error List Data Tools Operations

This item does not support previewing

Publish

2 SQL Server Analysis Service-SSAS:

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

SQL Server Object Explor... Sales.ds [Design] Diagram Organizer

Select New Dimensions
Select new dimensions to be created, based on available tables.

Dimension
Product Dim
ProductDim
Time Dim
TimeDim

Next >

Solution Explorer

Solution 'MultidimensionalProject14' (1 project)
MultidimensionalProject14
Data Sources
Sales.ds
Data Source Views
Sales.ds
Cubes
Dimensions
Mining Structures
Roles
Assemblies
Miscellaneous

Diagram showing the relationship between Fact Sales, ProductDim, and TimeDim dimensions:

```
graph TD; FactSales[Fact Sales] --> ProductDim[ProductDim]; FactSales --> TimeDim[TimeDim];
```

Fact Sales
ProductID
CustomerID
SalesmanID
ChannelID
TimeID
Qty
Total price

ProductDim
ProductID
ProductName
ProductPrice
ProductCategory

TimeDim
TimeID
CalendarQuarter
CalendarYear

Activate Windows
Go to Settings to activate Windows.

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Open Recent Build Tools Database Tools Analyze Window Help

SQL Server Object Explorer Sales.dsv [Design]

Cube Wizard Completing the Wizard Name the cube, review its structure, and then click Finish to save the cube.

Cube name: Sales

Preview:

- Measure groups
 - Fact Sales
 - Qty
- Dimensions
 - Product Dim
 - Time Dim

Finish Cancel

Solution Explorer

Solution 'MultidimensionalProject14' (1 project)

- MultidimensionalProject14
 - Data Sources
 - Sales.ds
 - Data Source Views
 - Sales.dsv
 - Cubes
 - ProductDim
 - TimeDim
 - Dimensions
 - Mining Structures
 - Roles
 - Assemblies
 - Miscellaneous

Diagram Organizer

Fact Sales

- ProductID
- CustomerID
- SalesmanID
- ChannelID
- TimeID
- Qty
- Total price

ProductDim

- ProductID
- ProductName
- ProductPrice
- ProductCategory

TimeDim

- TimeID
- CalendarQuarter
- CalendarYear

Activate Windows
Go to Settings to activate Windows.

Serve... Toolbars SSIS T... SQL...
Output Error List Data Tools Operations

This item does not support previewing

Published

```
graph TD; FactSales[Fact Sales] --> ProductDim[ProductDim]; FactSales --> TimeDim[TimeDim];
```

2 SQL Server Analysis Service-SSAS:

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

Sales.cube [Design] Sales.csv [Design]

Cube Structure Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

SQL Server Object Explorer Solution Explorer Team Explorer Class View Tabular Model Explorer

Measures Data Source View

Sales [all] Fact Sales

Dimensions

Sales Product Dim Time Dim

Fact Sales

- ProductID
- CustomerID
- SalesmanID
- ChannelID
- TimeID
- Qty
- Qty Total price

TimeDim

- TimeID
- CalendarQuarter
- CalendarYear

ProductDim

- ProductID
- ProductName
- ProductPrice
- ProductCategory

```
graph TD; FactSales[Fact Sales] --> TimeDim[TimeDim]; FactSales --> ProductDim[ProductDim];
```

Activate Windows
Go to Settings to activate Windows.

Server... Toolbars SSIS T... SQL... Output Error List Data Tools Operations ready Publish

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

Sales.cube [Design] | Sales.dsv [Design]

Cube Structure Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Measures

- Sales
 - Fact Sales
 - Qty

Dimensions

- Sales
 - Product Dim
 - Time Dim

Data Source View

```
graph TD; FS[Fact Sales] --> TD[TimeDim]; FS --> PD[ProductDim];
```

The diagram illustrates the relationships between three dimensions:

- Fact Sales**: Contains ProductID, CustomerID, SalesmanID, ChannelID, TimeID, Qty, and Qty Total price.
- TimeDim**: Contains TimeID, CalendarQuarter, and CalendarYear.
- ProductDim**: Contains ProductID, ProductName, ProductPrice, and ProductCategory.

Arrows indicate that Fact Sales feeds into both TimeDim and ProductDim.

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL... Output Error List Data Tools Operations Ready Publish

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

Sales.cube [Design] Sales.dsv [Design]

Cube Structure Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Measures

- Sales
- Fact Sales
 - Qty

Dimensions

- Sales
 - Product Dim
 - Edit Product Dim
 - Attributes
 - Product ID
 - Time Dim
 - Edit Time Dim
 - Attributes
 - Time ID

Data Source View

```
graph TD; FactSales[Fact Sales] --> TimeDim[TimeDim]; FactSales --> ProductDim[ProductDim];
```

The diagram illustrates the relationships between three dimensions in a cube:

- Fact Sales**: Contains attributes ProductID, CustomerID, SalesmanID, ChannelID, TimeID, Qty, and Qty Total price.
- TimeDim**: Contains attributes TimeID, CalendarQuarter, and CalendarYear.
- ProductDim**: Contains attributes ProductID, ProductName, ProductPrice, and ProductCategory.

Relationships are indicated by arrows:

- An arrow points from Fact Sales to TimeDim.
- An arrow points from Fact Sales to ProductDim.

Activate Windows
Go to Settings to activate Windows.

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

Sales.cube [Design] Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

SQL Server Object Explor... Default Start

Measures

Sales

Fact Sales

Qty

Dimensions

Sales

Product Dim

Edit Product Dim

Attributes

Product ID

Time Dim

Edit Time Dim

Attributes

Time ID

Data Source View

Fact Sales

ProductID
CustomerID
SalesmanID
ChannelID
TimeID
Qty
Qty Total price

TimeDim

TimeID
CalendarQuarter
CalendarYear

ProductDim

ProductID
ProductName
ProductPrice
ProductCategory

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL... Output Error List Data Tools Operations

Quick Launch (Ctrl+Q) Sign In

Solution Explorer Team Explorer Class View Tabular Model Explorer

```
graph TD; FactSales[Fact Sales] --> TimeDim[TimeDim]; FactSales --> ProductDim[ProductDim];
```

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File View Project Tools Architecture Test Window Help

SQL Server Object Explorer

Sales.cube [Design] Sales.dsv [Design]

Cube Structure Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Measures

- Sales
 - Fact Sales
 - Qty

Dimensions

- Sales
- Product Dim
 - Edit Product Dim
 - Attributes
 - Product ID
- Time Dim
 - Edit Time Dim
 - Attributes
 - Time ID

Data Source View

```
graph TD; FactSales[Fact Sales] --> TimeDim[TimeDim]; FactSales --> ProductDim[ProductDim];
```

Fact Sales

- ProductID
- CustomerID
- SalesmanID
- ChannelID
- TimeID
- Qty
- Qty Total price

TimeDim

- TimeID
- CalendarQuarter
- CalendarYear

ProductDim

- ProductID
- ProductName
- ProductPrice
- ProductCategory

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL...

Output Error List Data Tools Operations

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Open Recent Database Data Source Dimension Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q) Sign In

SQL Server Object Explor... Product Dim.dim [Design]* Sales(cube [Design] Sales.dsv [Design]

Dimension Structure Attribute Relationships Translations Browser

Attributes Hierarchies Data Source View

To create a new hierarchy, drag an attribute here.

ProductDim
-> ProductID
-> ProductName
-> ProductPrice
-> ProductCategory

Serve... Toolb... SSIS T... SQL... Activate Windows
Output Error List Data Tools Operations Go to Settings to activate Windows.

Ready Publish

2 SQL Server Analysis Service-SSAS:

SQL Server Object Explor...

Product Dim.dim [Design]* Sales(cube [Design]* Sales.dsv [Design]

Dimension Structure Attribute Relationships Translations Browser

File Edit View Insert Tools Dimension Tools Architecture Test Analyze Window Help

Start | Back | Forward | Stop | Refresh | Home | Favorites | Help

SQL Server

- ▶ (localdb)\MSSQLLocalDB
- ▶ (localdb)\ProjectsV13
- ▶ Projects - Multidimensional

Attributes

- Product Dim
 - Product ID
 - Product Name
 - Product Price

Hierarchies

To create a new hierarchy,
drag an attribute here.

Data Source View

- ProductDim
 - » ProductID
 - ProductName
 - ProductPrice
 - ProductCategory

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File Edit View Debug Tools Data Project Windows Dimension Tools Architecture Test Analyze Window Help

SQL Server Object Explor... × Product Dim.dim [Design]* × Sales.cube [Design]* Sales.dsv [Design]

Dimension Structure Attribute Relationships Translations Browser

Attributes Hierarchies Data Source View

Product Dim Product ID Product Name Product Price

To create a new hierarchy, drag an attribute here.

Microsoft Visual Studio

Save changes to Dimension [Product Dim]?

This editor is bound to editors for the following objects:
Cube [Sales]

Click Save to close this editor, and to save changes made in this editor and any other editors related to it.
Click Discard to discard changes in this and related editors.
Click Ignore to close this editor. Changes made will remain in the object model.
Click Cancel to cancel the operation and keep this editor open.

Save Discard Ignore Cancel

Serve... Toolb... SSIS T... SQL... Activate Windows
Output Error List Data Tools Operations Go to Settings to activate Windows.

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

Sales.cube [Design] Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

SQL Server Object Explor... SQL Server

Measures Data Source View

Sales

- Fact Sales
 - Qty

Dimensions

- Sales
 - Product Dim
 - Edit Product Dim
 - Attributes
 - Time Dim
 - Edit Time Dim
 - Attributes

Fact Sales

- ProductID
- CustomerID
- SalesmanID
- ChannelID
- TimeID
- Qty
- Qty Total price

TimeDim

- TimeID
- CalendarQuarter
- CalendarYear

ProductDim

- ProductID
- ProductName
- ProductPrice
- ProductCategory

Activate Windows
Go to Settings to activate Windows.

Output Error List Data Tools Operations

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Open Recent Database Data Source Dimension Tools Architecture Test Analyze Window Help

SQL Server Object Explor... Time Dim.dim [Design]* Sales(cube [Design]* Sales.dsv [Design]

Dimension Structure Attribute Relationships Translations Browser

Attributes Hierarchies Data Source View

Time Dim

- Calendar Quarter
- Calendar Year
- Time ID

To create a new hierarchy, drag an attribute here.

TimeDim

- TimeID
- CalendarQuarter
- CalendarYear

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIST... SQL... Output Error List Data Tools Operations

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

Sales.cube [Design] Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

SQL Server Object Explor... SQL Server

Measures

- Sales
 - [all] Fact Sales
 - Qty

Dimensions

- Sales
 - Product Dim
 - Edit Product Dim
 - Attributes
 - Time Dim
 - Edit Time Dim
 - Attributes

Data Source View

```
graph TD; FactSales[Fact Sales] --> TimeDim[TimeDim]; FactSales --> ProductDim[ProductDim];
```

The diagram illustrates the relationships between three dimensions in the SSAS cube:

- Fact Sales**: Contains ProductID, CustomerID, SalesmanID, ChannelID, TimeID, Qty, and Qty Total price.
- TimeDim**: Contains TimeID, CalendarQuarter, and CalendarYear.
- ProductDim**: Contains ProductID, ProductName, ProductPrice, and ProductCategory.

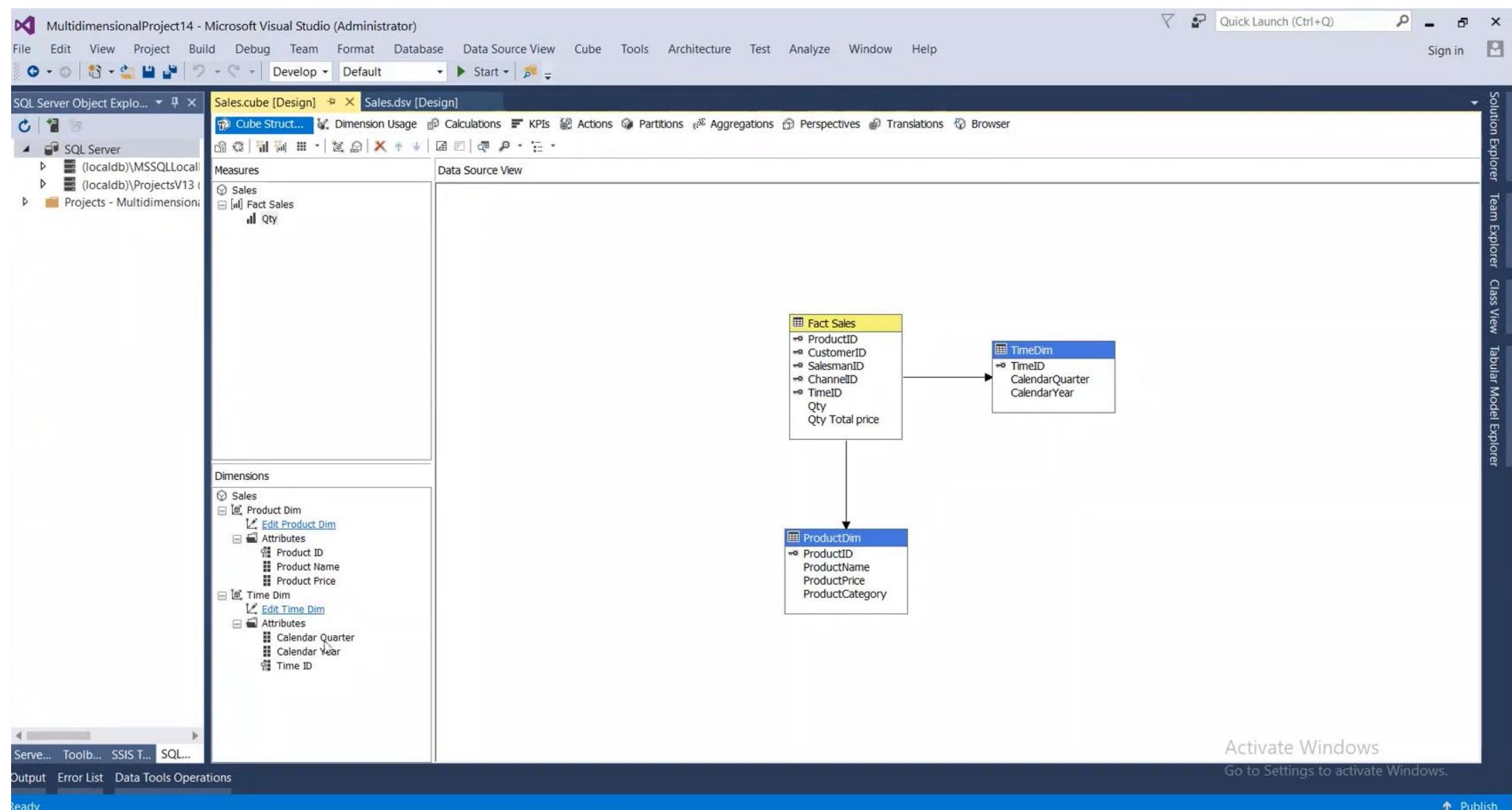
Relationships:

- A line connects the Fact Sales dimension to the TimeDim dimension.
- A line connects the Fact Sales dimension to the ProductDim dimension.

Activate Windows
Go to Settings to activate Windows.

Ready

Publish



MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File Edit View Project Build Debug Team Format Database Data Source View Cube Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q) Sign in

SQL Server Object Explor... Sales.cube [Design] Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Measures Data Source View

Sales Fact Sales Qty

Dimensions

Sales Product Dim ProductID CustomerID SalesmanID ChannelID TimeID Qty Qty Total price

Product ID Product Name Product Price

Time Dim TimeID CalendarQuarter CalendarYear

ProductDim ProductID ProductName ProductPrice ProductCategory

Activate Windows Go to Settings to activate Windows.

Server... Toolb... SSIS T... SQL... Output Error List Data Tools Operations Ready Publish

```
graph TD; FactSales[Fact Sales] --> ProductDim[ProductDim]; FactSales --> TimeDim[TimeDim]; FactSales --> ProductDim
```

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File Edit View Project Build Debug Team Database Tools Architecture Test Analyze Window Help

Develop Default Start

SQL Server Object Explorer

Sales.cube [Design] Sales.dsv [Design]

Cube Structure Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Measures

Sales

Fact Sales

Qty

Dimensions

Sales

Product Dim

Edit Product.Dim

Attributes

Product ID

Product Name

Product Price

Time Dim

Edit Time Dim

Attributes

Calendar Quarter

Calendar Year

Time ID

Fact Sales

ProductID

CustomerID

SalesmanID

ChannelID

TimeID

Qty

Qty Total price

TimeDim

TimeID

CalendarQuarter

CalendarYear

ProductDim

ProductID

ProductName

ProductPrice

ProductCategory

Solution Explorer

Search Solution Explorer (Ctrl+.)

Solution 'MultidimensionalProject14' (1 project)

MultidimensionalProject14

Data Sources

Sales.ds

Data Source Views

Sales.dsv

Cubes

Sales.cube

Dimensions

Product Dim.dim

Time Dim.dim

Mining Structures

Roles

Assemblies

Miscellaneous

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL...
Output Error List Data Tools Operations

```
graph TD; FactSales[Fact Sales] --> TimeDim[TimeDim]; FactSales --> ProductDim[ProductDim];
```



2 SQL Server Analysis Service-SSAS.



SQL Server Object Explorer

- SQL Server
 - (localdb)\MSSQLLocalDB
 - (localdb)\ProjectsV13
 - Projects - Multidimensional

Measures

- Sales
 - [m] Fact Sales
 - Qty

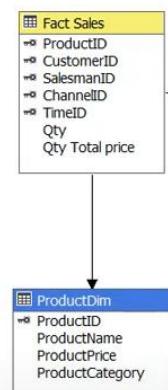
Dimensions

- Sales
 - [t] Product Dim
 - Edit Product Dim
 - Attributes
 - Product ID
 - Product Name
 - Product Price
 - [t] Time Dim
 - Edit Time Dim
 - Attributes
 - Calendar Quarter
 - Calendar Year
 - Time ID

Sales.cube [Design] ▾ Sales.dsv [Design]

Cube Structure Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Data Source View



- Open
- Process...
- Browse
- <> View Code F7
- View Designer Shift+F7
- Add Business Intelligence...
- Scope to This
- New Solution Explorer View
- Exclude From Project
- Cut Ctrl+X
- Copy Ctrl+C
- Delete Del
- Rename
- Properties Alt+Enter

Solution Explorer

- Solution 'MultidimensionalProject14' (1 project)
- MultidimensionalProject14
 - Data Sources
 - Sales.ds
 - Data Source Views
 - Sales.dsv
 - Cubes
 - Sales.cube

Search Solution Explorer (Ctrl+;) Solution Explorer Team Explorer Class View Tabular Model Explorer

Activate Windows

Go to Settings to activate Windows.

↑ Publish

Activate Windows
27/10/2020
Go to Settings to activate Windows.

This item does not support previewing



2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

Sales.cube [Design] Sales.dsv [Design]

File New Open Recent Windows Help

SQL Server Object Explorer Solution Explorer

Cube Structure Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Measures Data Source View

Fact Sales Qty

Dimensions

Sales Product Dim Edit Product Dim Attributes Product ID Product Name Product Price Time Dim Edit Time Dim Attributes Calendar Quarter Calendar Year Time ID

Fact Sales

- ProductID
- CustomerID
- SalesmanID
- ChannelID
- TimeID
- Qty
- Qty Total price

ProductDim

- ProductID
- ProductName
- ProductPrice
- ProductCategory

Open Process... Browse View Code F7 View Designer Shift+F7 Add Business Intelligence... Scope to This New Solution Explorer View Exclude From Project Cut Ctrl+X Copy Ctrl+C Delete Del Rename Properties Alt+Enter

Activate Windows Go to Settings to activate Windows.

Output Error List Data Tools Operations

```
graph TD; FactSales[Fact Sales] --> ProductDim[ProductDim]; FactSales --> Sales[Sales]; FactSales --> TimeDim[Time Dim]; FactSales --> CustomerDim[Customer Dim]; FactSales --> SalesmanDim[Salesman Dim]; FactSales --> ChannelDim[Channel Dim]; FactSales --> Qty[Qty]; FactSales --> QtyTotalPrice[Qty Total price]; FactSales --> ProductID[ProductID]; FactSales --> ProductName[ProductName]; FactSales --> ProductPrice[ProductPrice]; FactSales --> ProductCategory[ProductCategory]; FactSales --> ProductID[ProductID]; FactSales --> ProductName[ProductName]; FactSales --> ProductPrice[ProductPrice]; FactSales --> ProductCategory[ProductCategory];
```

2 SQL Server Analysis Service-SSAS.

Sales.cube [Design] × Sales.dsv [Design]

Cube Structure Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Measures

- Sales
 - Fact Sales
 - Qty

Dimensions

- Sales
 - Product Dim
 - Edit Product Dim
 - Attributes
 - Product ID
 - Product Name
 - Product Price
 - Time Dim
 - Edit Time Dim
 - Attributes
 - Calendar Quarter
 - Calendar Year
 - Time ID

Data Source View

Fact Sales

- ProductID
- CustomerID
- SalesmanID
- ChannelID
- TimeID
- Qty
- Qty Total price

ProductDim

- ProductID
- ProductName
- ProductPrice
- ProductCategory

Context menu for Fact Sales:

- Open
- Process...
- Browse
- View Code F7
- View Designer Shift+F7
- Add Business Intelligence...
- Scope to This
- New Solution Explorer View
- Exclude From Project
- Cut Ctrl+X
- Copy Ctrl+C
- Delete Del
- Rename
- Properties Alt+Enter

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

Solution 'MultidimensionalProject14' (1 project)

- MultidimensionalProject14
 - Data Sources
 - Sales.ds
 - Data Source Views
 - Sales.dsv
 - Cubes
 - Sales.cube

Team Explorer Class View Tabular Model Explorer

Activate Windows Go to Settings to activate Windows.

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Open Recent Tools Analyze Window Help

SQL Server Object Explor... Sales.cube [Design] Sales.dsv [Design]

Cube Structure Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Measures

Sales Fact Sales Qty

Dimensions

Sales Product Dim ProductID ProductName ProductPrice

Product Dim Edit Product Dim Attributes

Product ID Product Name Product Price

Time Dim Edit Time Dim Attributes

Calendar Quarter Calendar Year Time ID

Data Source View

Fact Sales

Microsoft Visual Studio

The server content appears to be out of date.
Would you like to build and deploy the project first?

Yes No Cancel

ProductDim

ProductID ProductName ProductPrice ProductCategory

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

Solution 'MultidimensionalProject14' (1 project)

MultidimensionalProject14

- Data Sources
- Sales.ds
- Data Source Views
- Sales.dsv

Cubes

Sales(cube)

- Dimensions
- Product Dim.dim
- Time Dim.dim

Mining Structures

Roles

Assemblies

Miscellaneous

Team Explorer Class View Tabular Model Explorer

Activate Windows
Go to Settings to activate Windows.

Server... Toolbars SSIS T... SQL...

Output Error List Data Tools Operations

The screenshot displays the Microsoft Visual Studio interface for managing a Multidimensional Project named 'MultidimensionalProject14'. The main workspace shows the 'Sales.cube [Design]' tab, which contains a 'Data Source View' for 'Fact Sales' and a 'ProductDim' dimension. A modal dialog box from 'Microsoft Visual Studio' is overlaid, asking if the server content is out of date and if it should be built and deployed. The 'Yes' button is highlighted. The 'Solution Explorer' on the right lists the project's components, including 'Sales(cube)', dimensions, mining structures, roles, assemblies, and miscellaneous files. The bottom status bar provides standard development tools and activation information.

Deployment Progress - MultidimensionalProject14

Server : localhost

Database : MultidimensionalProject14

SQL Server Analysis Service-SSAS.



Status:

Activate Windows

Go to Settings to activate Windows.

Deploying and Processing

Deployment Progress - MultidimensionalProject14

Server : localhost
Database : MultidimensionalProject14

Command

Object list:

Object Name	Type	Process Options	Settings
Sales	Cube	Process Full	

Remove Impact Analysis...

Batch Settings Summary

Processing order:
 Parallel

Transaction mode:
 (Default)

Dimension errors:
 (Default)

Dimension key error log path :
 (Default)

Process affected objects:
 Do not process

Change Settings... Run... Close

Status: 

Activate Windows
Go to Settings to activate Windows.

Deployment Completed Successfully

Deployment Progress - MultidimensionalProject14

Server : localhost

Database : MultidimensionalProject14

Command

Process Cube - Sales

Object list:

Object Name	Type	Process Options	Settings
Product Dim	Dimension		
Time Dim	Dimension		

Process Progress

- Command
 - Processing Dimension 'Product Dim'.
 - Processing Dimension 'Time Dim'.

Status:

Process succeeded. Trace information is still being transferred. If you do not want to wait for all of the information to arrive press S

Stop Reprocess View Details... Copy Close Help Change Settings... Run... Close

Deployment Completed Successfully

Status:

Activate Windows
Go to Settings to activate Windows.

2 SQL Server Analysis Service-SSAS.

Object list:

Object Name	Type	Process Options	Settings
Process Progress			

Process Progress

- Command
 - Processing Dimension 'Product Dim' completed.
Start time: 27/10/2020 13:03:33; End time: 27/10/2020 13:03:34; Duration: 0:00:01
 - Processing Dimension Attribute '(All)' completed.
 - Processing Dimension Attribute 'Product ID' completed. 6 rows have been read.**
Start time: 27/10/2020 13:03:34; End time: 27/10/2020 13:03:34; Duration: 0:00:00
 - SQL queries
 - Processing Dimension Attribute 'Product Name' completed. 6 rows have been read.
 - Processing Dimension Attribute 'Product Price' completed. 6 rows have been read.
 - Processing Cube 'Sales' completed.
Start time: 27/10/2020 13:03:34; End time: 27/10/2020 13:03:36; Duration: 0:00:02
 - Processing Measure Group 'Fact Sales' completed.
 - Processing Dimension 'Time Dim' completed.
Start time: 27/10/2020 13:03:33; End time: 27/10/2020 13:03:34; Duration: 0:00:01
 - Processing Dimension Attribute '(All)' completed.
 - Processing Dimension Attribute 'Calendar Quarter' completed. 5 rows have been read.
 - Processing Dimension Attribute 'Calendar Year' completed. 3 rows have been read.
 - Processing Dimension Attribute 'Time ID' completed. 9 rows have been read.

Status:

Process succeeded.

Buttons: Reprocess, View Details..., Copy, Close, Help

Buttons: Change Settings..., Run..., Close

Deployment Completed Successfully

Activate Windows
Go to Settings to activate Windows.

Deployment Progress - MultidimensionalProject14

Server : Localhost
Database : MultidimensionalProject14

2 SQL Server Analysis Service-SSAS.

Command

Process Cube Sales

Object list:

Object Name	Type	Process Options	Settings

Process Progress

- Command
 - Processing Dimension 'Product Dim' completed.
 - Start time: 27/10/2020 13:03:33; End time: 27/10/2020 13:03:34; Duration: 0:00:01
 - Processing Dimension Attribute '(All)' completed.
 - Processing Dimension Attribute 'Product ID' completed. 6 rows have been read.
 - Start time: 27/10/2020 13:03:34; End time: 27/10/2020 13:03:34; Duration: 0:00:00
 - SQL queries
 - SELECT DISTINCT [dbo_ProductDim].[ProductID] AS [dbo_ProductDimProductID0_0],[dbo_ProductDim].[ProductN
 - Processing Dimension Attribute 'Product Name' completed. 6 rows have been read.
 - Start time: 27/10/2020 13:03:33; End time: 27/10/2020 13:03:34; Duration: 0:00:00
 - SQL queries
 - Processing Dimension Attribute 'Product Price' completed. 6 rows have been read.
 - Processing Cube 'Sales' completed.
 - Start time: 27/10/2020 13:03:34; End time: 27/10/2020 13:03:36; Duration: 0:00:01
 - [ui] Processing Measure Group 'Fact Sales' completed.
 - Processing Dimension 'Time Dim' completed.
 - Start time: 27/10/2020 13:03:33; End time: 27/10/2020 13:03:34; Duration: 0:00:01
 - Processing Dimension Attribute '(All)' completed.
 - Processing Dimension Attribute 'Calendar Quarter' completed. 5 rows have been read.

Status:

Process succeeded.

Rerun Reprocess View Details... Copy Close Help

Change Settings... Run... Close Deployment Completed Successfully

Activate Windows
Go to Settings to activate Windows.

Deployment Progress - MultidimensionalProject14

Server : localhost

Database : MultidimensionalProject14

Command

Process Cube - Sales

Object list:

Object Name	Type	Process Options	Settings
Product Dim	Dimension		
Sales	Cube		
Time Dim	Dimension		
Fact Sales	Measure Group		

Process Progress

Command

- Processing Dimension 'Product Dim' completed.
 - Start time: 27/10/2020 13:03:33; End time: 27/10/2020 13:03:34; Duration: 0:00:01
 - Processing Dimension Attribute '(All)' completed.
 - Processing Dimension Attribute 'Product ID' completed. 6 rows have been read.
 - Start time: 27/10/2020 13:03:34; End time: 27/10/2020 13:03:34; Duration: 0:00:00
 - SQL queries
 - SELECT DISTINCT [dbo_ProductDim].[ProductID] AS [dbo_ProductDimProductID0_0],[dbo_ProductDim].[ProductName]
 - Processing Dimension Attribute 'Product Name' completed. 6 rows have been read.
 - Start time: 27/10/2020 13:03:33; End time: 27/10/2020 13:03:34; Duration: 0:00:00
 - SQL queries
 - SELECT DISTINCT [dbo_ProductDim].[ProductName] AS [dbo_ProductDimProductName0_0] FROM [dbo].[Product]
 - Processing Dimension Attribute 'Product Price' completed. 6 rows have been read.
 - Processing Cube 'Sales' completed.
 - Start time: 27/10/2020 13:03:34; End time: 27/10/2020 13:03:36; Duration: 0:00:02
 - [all] Processing Measure Group 'Fact Sales' completed.
 - Processing Dimension 'Time Dim' completed.
 - Start time: 27/10/2020 13:03:33; End time: 27/10/2020 13:03:34; Duration: 0:00:01
 - Processing Dimension Attribute '(All)' completed

Status:

Process succeeded.

Step Reprocess View Details... Copy Close Help Change Settings... Run... Close

Deployment Completed Successfully



Activate Windows

Go to Settings to activate Windows.

Deployment Progress - MultidimensionalProject14

Server : localhost

Database : MultidimensionalProject14

Command

Process Cube - Sales

Object list:

Object Name	Type	Process Options	Settings
-------------	------	-----------------	----------

Process Progress

- SQL queries
 - SELECT DISTINCT [dbo].[ProductDim].[ProductID] AS [dbo].[ProductDimProductID0_0],[dbo].[ProductDim].[ProductName]
- Processing Dimension Attribute 'Product Name' completed. 6 rows have been read.
 - Start time: 27/10/2020 13:03:33; End time: 27/10/2020 13:03:34; Duration: 0:00:00
- SQL queries
 - SELECT DISTINCT [dbo].[ProductDim].[ProductName] AS [dbo].[ProductDimProductName0_0] FROM [dbo].[Product]
- Processing Dimension Attribute 'Product Price' completed. 6 rows have been read.
 - Start time: 27/10/2020 13:03:34; End time: 27/10/2020 13:03:36; Duration: 0:00:02
- Processing Cube 'Sales' completed.
 - Start time: 27/10/2020 13:03:34; End time: 27/10/2020 13:03:36; Duration: 0:00:02
- [m] Processing Measure Group 'Fact Sales' completed.
- Processing Dimension 'Time Dim' completed.
 - Start time: 27/10/2020 13:03:33; End time: 27/10/2020 13:03:34; Duration: 0:00:01
- Processing Dimension Attribute '(All)' completed.
- Processing Dimension Attribute 'Calendar Quarter' completed. 5 rows have been read.
- Processing Dimension Attribute 'Calendar Year' completed. 3 rows have been read.
 - Start time: 27/10/2020 13:03:33; End time: 27/10/2020 13:03:34; Duration: 0:00:01
- SQL queries
 - SELECT DISTINCT [dbo].[TimeDim].[CalendarYear] AS [dbo].[TimeDimCalendarYear0_0] FROM [dbo].[TimeDim] AS |
- Processing Dimension Attribute 'Time ID' completed. 0 rows have been read.

Status:

- Process succeeded.

Stop

Reprocess

View Details...

Copy

Close

Help

Change Settings...

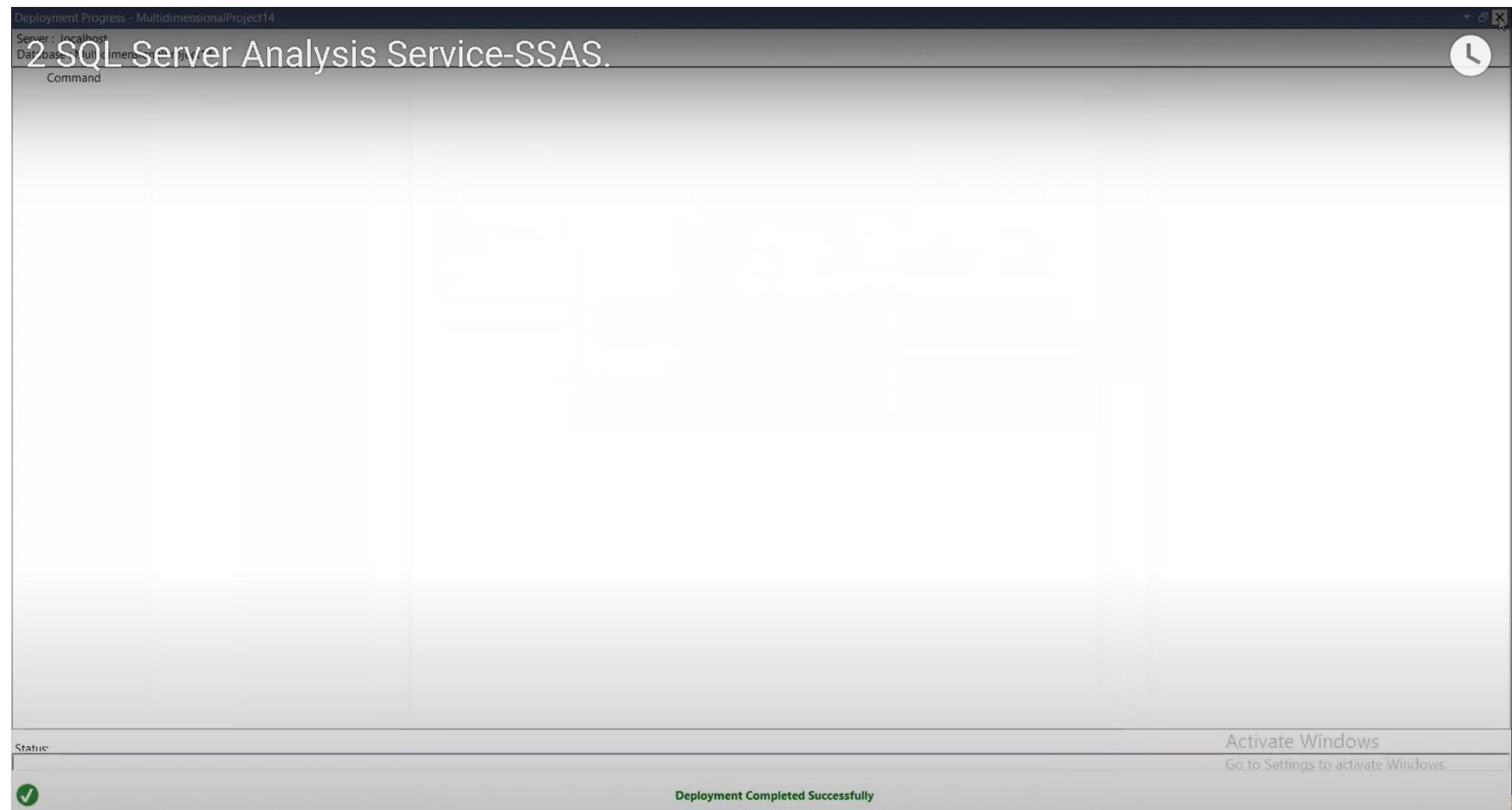
Run...

Close

Activate Windows

Go to Settings to activate Windows.

Deployment Completed Successfully



MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File Edit View Project Build Debug Team Format Database Data Source View Cube Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q) Sign in

SQL Server Object Explor... Default Start

Sales.cube [Design] Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Measures

- Sales
 - Fact Sales

Dimensions

- Sales
 - Product Dim
 - Edit Product Dim
 - Attributes
 - Product ID
 - Product Name
 - Product Price
 - Time Dim
 - Edit Time Dim
 - Attributes
 - Calendar Quarter
 - Calendar Year
 - Time ID

Data Source View

```
graph TD; FS[Fact Sales] --> TD[TimeDim]; FS --> PD[ProductDim];
```

The diagram illustrates the relationships between three dimensions:

- Fact Sales**: Contains attributes ProductID, CustomerID, SalesmanID, ChannelID, TimeID, Qty, and Total price.
- TimeDim**: Contains attributes TimeID, CalendarQuarter, and CalendarYear.
- ProductDim**: Contains attributes ProductID, ProductName, ProductPrice, and ProductCategory.

Relationships are indicated by arrows: Fact Sales has a relationship with both TimeDim and ProductDim.

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL... Output Error List Data Tools Operations Ready Publish

2 SQL Server Analysis Service-SSAS.

Sales.cube [Design] Sales.dsv [Design]

File New Open Recent Save Save As... Import Project Properties Cube Structure Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Developer Default Start

SQL Server Object Explorer

Measures

Sales

Fact Sales

Qty

Dimensions

Sales

Product Dim

Edit Product Dim

Attributes

Product ID

Product Name

Product Price

Time Dim

Edit Time Dim

Attributes

Calendar Quarter

Calendar Year

Time ID

Edit Measure

Usage: Sum

Source table: Fact Sales

Source column:

- CustomerID
- SalesmanID
- ChannelID
- Qty
- Qty Total price

TimeDim

TimeID

CalendarQuarter

CalendarYear

Show all columns

OK Cancel Help

Activate Windows
Go to Settings to activate Windows.

Ready

Output Error List Data Tools Operations

Publish

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

Sales.cube [Design] Sales.dsv [Design]

File New Open Recent Data Source Tools Architecture Test Analyze Window Help

SQL Server Object Explorer Solution Explorer Team Explorer Class View Tabular Model Explorer

Quick Launch (Ctrl+Q) Sign In

Measures

- Sales
 - Fact Sales
 - Qty

Dimensions

- Sales
- Product Dim
 - Edit Product Dim
 - Attributes
 - Product ID
 - Product Name
 - Product Price
- Time Dim
 - Edit Time Dim
 - Attributes
 - Calendar Quarter
 - Calendar Year
 - Time ID

Edit Measure

Usage: Sum

Source table: Sum

Source column: Count of rows
Count of non-empty values
Minimum
Maximum
Distinct count
No aggregations
Account
Average over time
First value
Last value
First non-empty value
Last non-empty value

Show all columns

OK Cancel Help

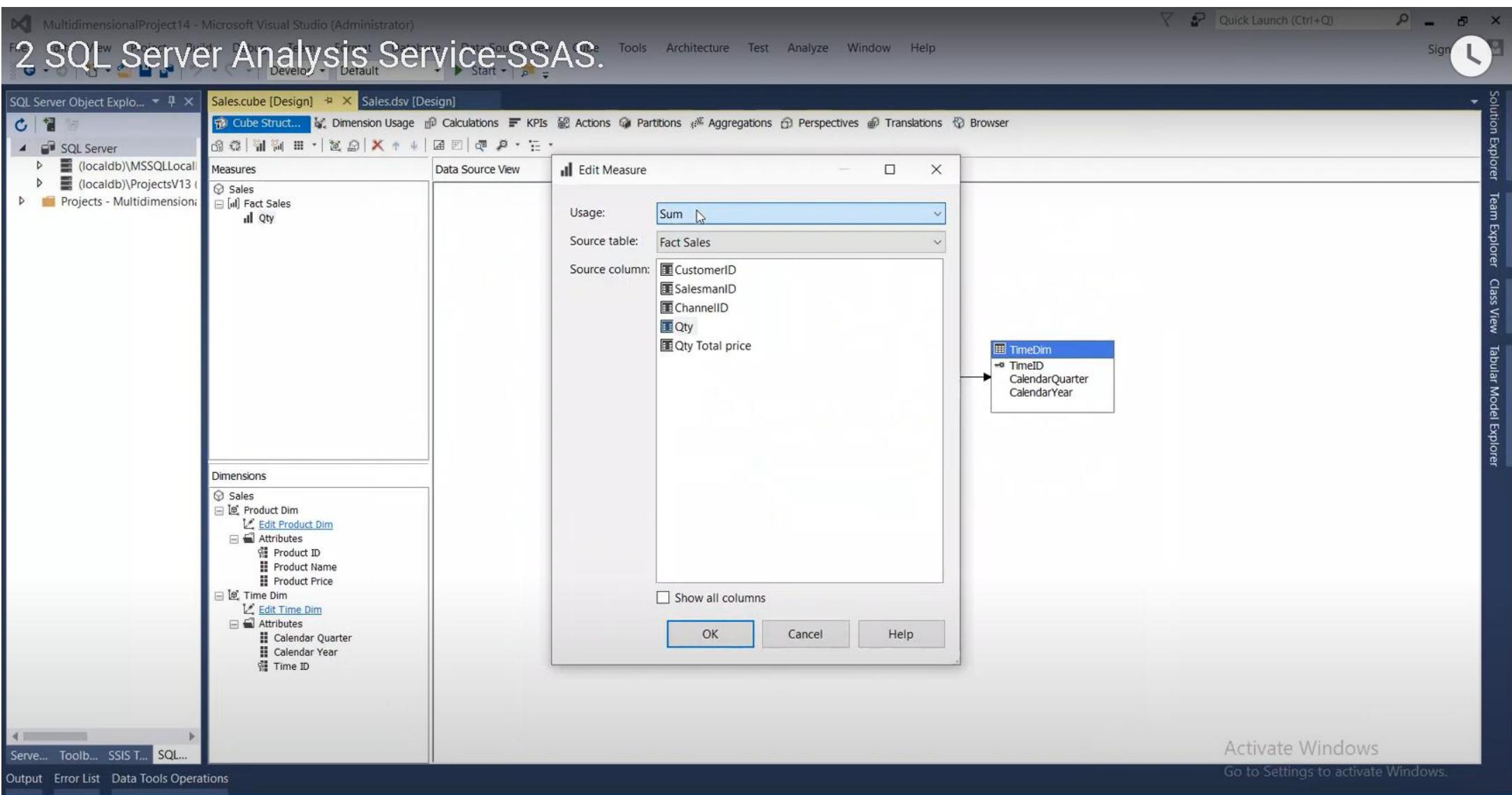
TimeDim

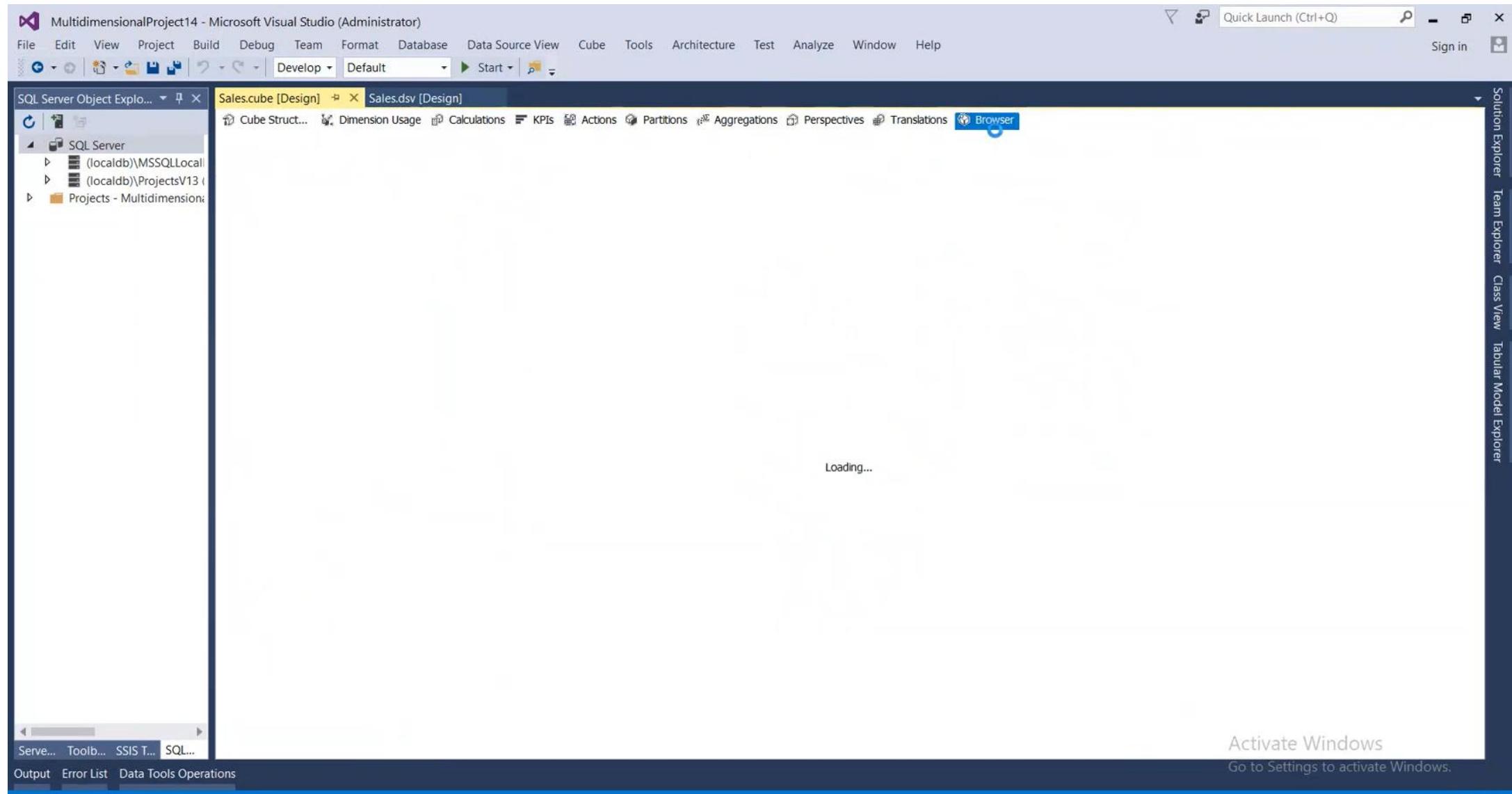
- TimeID
- CalendarQuarter
- CalendarYear

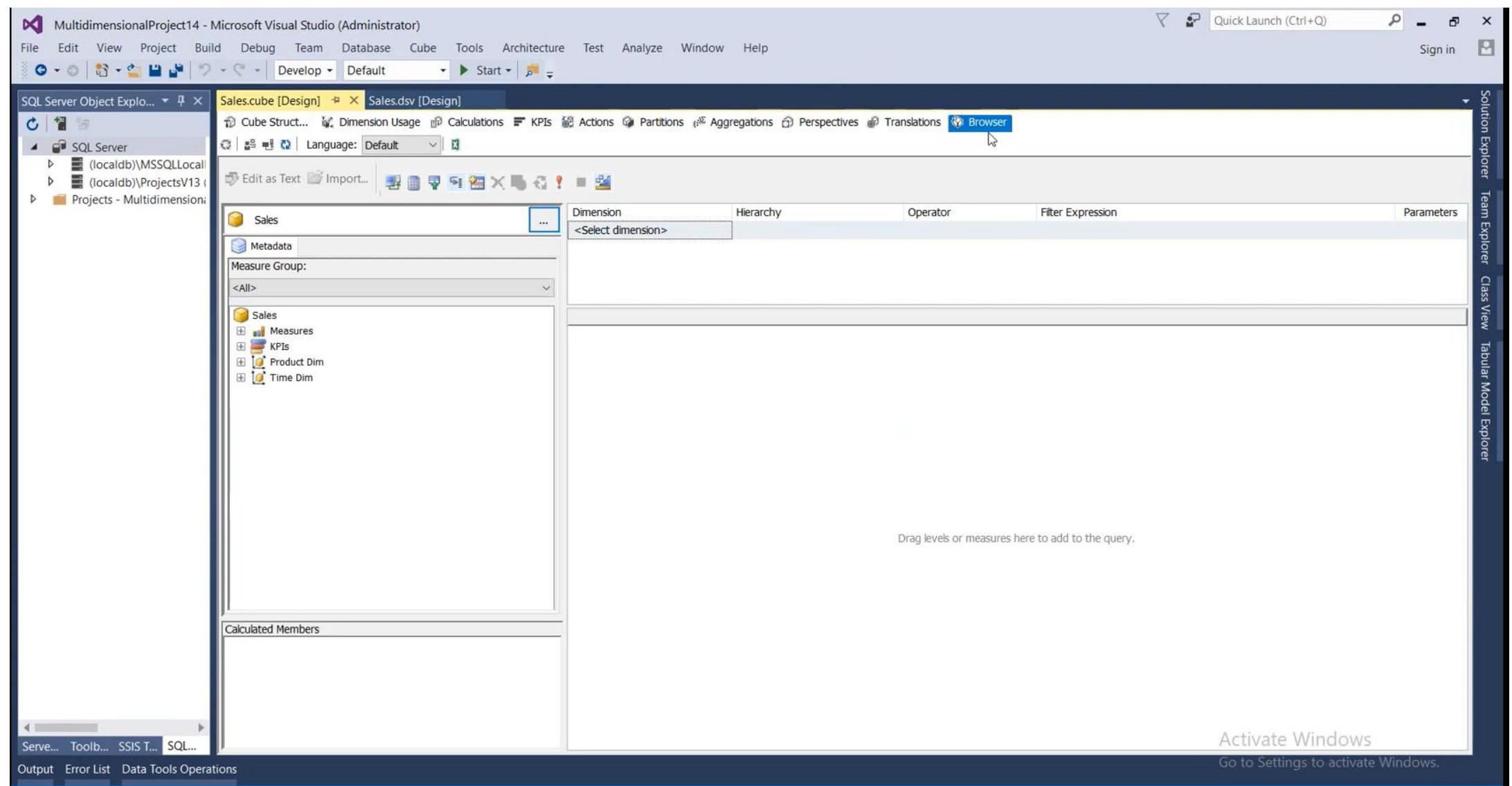
Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL...

Output Error List Data Tools Operations







2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

Sales.cube [Design] Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Language: Default

Edit as Text Import...

Dimension Hierarchy Operator Filter Expression Parameters

<Select dimension>

Measure Group: <All>

Sales
 Measures
 Fact Sales
 Qty
 KPIs
 Product Dim
 Time Dim

Calculated Members

Drag levels or measures here to add to the query.

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL...
Output Error List Data Tools Operations

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

2 SQL Server Analysis Service-SSAS.

File New Open Recent Database Tools Analyze Window Help

Developer Default Start

Quick Launch (Ctrl+Q) Sign In

SQL Server Object Explorer Sales(cube [Design]) Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Language: Default

Edit as Text Import...

Sales

Dimension Hierarchy Operator Filter Expression Parameters

<Select dimension>

Qty 890

Measure Group: <All>

Sales

Metadata

Measure Group: <All>

Sales

Measures

Fact Sales

Qty

KPIs

Product Dim

Time Dim

Calculated Members

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL... Output Error List Data Tools Operations

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

Sales.cube [Design] Sales.csv [Design]

SQL Server Object Explorer

Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Language: Default

Edit as Text Import... Tools

Dimension Hierarchy Operator Filter Expression Parameters

<Select dimension>

Measure Group: <All>

Sales

Metadata

Measure Group: <All>

Sales

Measures

Fact Sales

Qty

KPIs

Product Dim

Time Dim

Calculated Members

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL...

Output Error List Data Tools Operations

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

2 SQL Server Analysis Service-SSAS.

File New Project Build Debug Tools Options Analyze Window Help

SQL Server Object Explor... Sales.cube [Design] Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Language: Default

Edit as Text Import...

Sales

Metadata

Measure Group:

<All>

Sales

Measures

Fact Sales

Qty

KPIs

Product Dim

Product ID

Product Name

Product Price

Time Dim

Calculated Members

Dimension Hierarchy Operator Filter Expression Parameters

Product Name Qty

Accessories	305
Books	155
Clothing	185
Components	115
Sportswear	130

Activate Windows
Go to Settings to activate Windows.

Output Error List Data Tools Operations

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

Sales.cube [Design] Sales.dsv [Design]

Cube Structure Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Language: Default

Edit as Text Import... Tools

Dimension Hierarchy Operator Filter Expression Parameters

<Select dimension>

Measure Group: <All>

Sales
Measures
Fact Sales
Qty
KPIs
Product Dim
Product ID
Product Name
Product Price
Time Dim
Calendar Quarter
Calendar Year
Time ID

Calculated Members

Calendar Year Qty

Calendar Year	Qty
2007	380
2008	510

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL... Output Error List Data Tools Operations

2 SQL Server Analysis Service SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File View Project Database Tools Analyze Window Help

www.youtube.com is now full screen (Press Esc to exit full screen mode)

SQL Server Object Explor... Sales(cube [Design]) Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Language: Default

Edit as Text Import...

Sales

Dimension Hierarchy Operator Filter Expression Parameters

<Select dimension>

Measure Group: <All>

Calendar Year Qty

Calendar Year	Qty
2007	380
2008	510

Calculated Members

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL...

Output Error List Data Tools Operations

Sign In

Solution Explorer Team Explorer Class View Tabular Model Explorer

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

Sales.cube [Design] Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Language: Default

Edit as Text Import... Tools Start

SQL Server Object Explor... Projects - Multidimensional Project

Sales

Metadata

Measure Group: <All>

Sales

- Measures
 - Fact Sales
 - Qty
- KPIs
- Product Dim
 - Product ID
 - Product Name
 - Product Price
- Time Dim
 - Calendar Quarter
 - Calendar Year
 - Time ID

Calculated Members

Dimension	Hierarchy	Operator	Filter Expression	Parameters
<Select dimension>				

Calendar Year	Product Name	Qty
2007	Accessories	110
2007	Books	80
2007	Clothing	110
2007	Components	30
2007	Sportswear	50
2008	Accessories	195
2008	Books	75
2008	Clothing	75
2008	Components	85
2008	Sportswear	80

Activate Windows
Go to Settings to activate Windows.

Output Error List Data Tools Operations

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

Sales.cube [Design] Sales.dsv [Design]

File New Project Database Analysis Start Analyze Window Help

Developer Default

SQL Server Object Explorer

Sales.cube [Design] Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Edit as Text Import...

Language: Default

Dimension Hierarchy Operator Filter Expression Parameters

<Select dimension>

Measure Group: <All>

Sales

Metadata

Measure Group: <All>

Sales

Measures

Fact Sales

Qty

KPIs

Product Dim

Product ID

Product Name

Product Price

Time Dim

Calendar Quarter

Calendar Year

Time ID

Calculated Members

Calendar Year	Product Name	Qty
2007	Accessories	110
2007	Books	80
2007	Clothing	110
2007	Components	30
2007	Sportswear	50
2008	Accessories	195
2008	Books	75
2008	Clothing	75
2008	Components	85
2008	Sportswear	80

Serve... Toolb... SSIS T... SQL...

Output Error List Data Tools Operations

Activate Windows
Go to Settings to activate Windows.

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Open Recent Project... Analyze Window Help

Quick Launch (Ctrl+Q) Sign In

Sales.cube [Design] Sales.csv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Language: Default

Edit as Text Import...

SQL Server Object Explorer

Projects - Multidimensional

Sales

Metadata Functions

Measure Group: <All>

Sales

- Measures
 - Fact Sales
 - Qty
- KPIs
- Product Dim
 - Product ID
 - Product Name
 - Product Price
- Time Dim
 - Calendar Quarter
 - Calendar Year
 - Time ID

SELECT NON EMPTY { [Measures].[Qty] } ON COLUMNS, NON EMPTY { ([Time Dim].[Calendar Year].[Calendar Year].ALLMEMBERS * [Product Dim].[Product Name].[Product Name].ALLMEMBERS) } DIMENSION PROPERTIES MEMBER_CAPTION, MEMBER_UNIQUE_NAME ON ROWS FROM [Sales] CELL PROPERTIES VALUE, BACK_COLOR, FORE_COLOR, FORMATTED_VALUE, FORMAT_STRING, FONT_NAME, FONT_SIZE, FONT_FLAGS

Click to execute the query.

Activate Windows
Go to Settings to activate Windows.

Server... Toolb... SSIS T... SQL... Output Error List Data Tools Operations Ready Publish

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Open Recent View Insert Tools Options Analyze Window Help

Developer Default Start

Quick Launch (Ctrl+Q) Sign In

SQL Server Object Explorer

Sales.cube [Design] Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Language: Default

Edit as Text Import...

...

Sales

Metadata Functions

Measure Group:

<All>

Sales

- Measures
 - Fact Sales
 - Qty
- KPIs
- Product Dim
 - Product ID
 - Product Name
 - Product Price
- Time Dim
 - Calendar Quarter
 - Calendar Year
 - Time ID

SELECT NON EMPTY { [Measures].[Qty] } ON COLUMNS, NON EMPTY { ([Time Dim].[Calendar Year].[Calendar Year].ALLMEMBERS * [Product Dim].[Product Name].[Product Name].ALLMEMBERS) } DIMENSION PROPERTIES MEMBER_CAPTION, MEMBER_UNIQUE_NAME ON ROWS FROM [Sales] CELL PROPERTIES VALUE, BACK_COLOR, FORE_COLOR, FORMATTED_VALUE, FORMAT_STRING, FONT_NAME, FONT_SIZE, FONT_FLAGS

Click to execute the query.

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL...

Output Error List Data Tools Operations

Ready

Publish

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Open Recent View Tools Options Project Tools Analyze Window Help

Developer Default Start

Quick Launch (Ctrl+Q) Sign In

SQL Server Object Explorer

Sales.cube [Design] Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Language: Default

Edit as Text Import... Delete ...

Metadata Functions

Measure Group: <All>

Sales

- Measures
 - Fact Sales
 - Qty
- KPIs
- Product Dim
 - Product ID
 - Product Name
 - Product Price
- Time Dim
 - Calendar Quarter
 - Calendar Year
 - Time ID

SELECT NON EMPTY { [Measures].[Qty] } ON COLUMNS, NON EMPTY { ([Time Dim].[Calendar Year].[Calendar Year].ALLMEMBERS * [Product Dim].[Product Name].[Product Name].ALLMEMBERS) } DIMENSION PROPERTIES MEMBER_CAPTION, MEMBER_UNIQUE_NAME ON ROWS FROM [Sales] CELL PROPERTIES VALUE, BACK_COLOR, FORE_COLOR, FORMATTED_VALUE, FORMAT_STRING, FONT_NAME, FONT_SIZE, FONT_FLAGS

Calendar Year Product Name Qty

Click to execute the query.

Activate Windows
Go to Settings to activate Windows.

Serve... Toolbars SSIS T... SQL... Output Error List Data Tools Operations

Ready

Solution Explorer Team Explorer Class View Tabular Model Explorer

2 SQL Server Analysis Service-SSAS.

Book1 - Excel (Product Activation Failed)

PivotTable Tools

Analyze

Design

Tell me what you want to do...

PivotTable Name: Active Field: PivotTable1

Options

Field Settings

Drill Down

Drill Up

Collapse Field

Group Selection

Ungroup

Group Field

Insert Slicer

Insert Timeline

Filter Connections

Refresh

Change Data Source

Clear

Select

Move

PivotTable

Fields, Items, OLAP Relationships & Sets

Tools

PivotChart Recommended PivotTables

Field List

+/- Buttons Headers

Field

Show

B4

A B C D E F G H I J K L M N O P Q R S T

1

2

3

4 PivotTable1

5 To build a report, choose fields from the PivotTable Field List

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tmp2834

PivotTable Fields

Choose fields to add to report:

Σ Fact Sales

Qty

Product Dim

Product ID

Product Name

Product Price

Time Dim

Calendar Quarter

Drag fields between areas below:

FILTERS

COLUMNS

ROWS

VALUES

Activate Windows

Go to Settings to activate Windows

Defer Layout Upd...

UPDATE

Ready

100%

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

Sales.cube [Design] Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Language: Default

Edit as Text Import... Tools

Sales

Dimension Hierarchy Operator Filter Expression Parameters

<Select dimension>

Measure Group: <All>

Sales

Measures

Fact Sales Qty

KPIs

Product Dim

Product ID Product Name Product Price

Time Dim

Calendar Quarter Calendar Year Time ID

Calculated Members

Calendar Year	Product Name	Qty
2007	Accessories	110
2007	Books	80
2007	Clothing	110
2007	Components	30
2007	Sportswear	50
2008	Accessories	195
2008	Books	75
2008	Clothing	75
2008	Components	85
2008	Sportswear	80

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL...

Output Error List Data Tools Operations

2 SQL Server Analysis Service-SSAS.

Book1 - Excel (Product Activation Failed)

what you want to do...

Cut Copy Format Painter

Font Alignment Number Styles Cells Editing

A1 A B C D E F G H I J K L M N O P Q R S T U V W

Microsoft Excel Security Notice

Microsoft Office has identified a potential security concern.

File Path: C:\Users\Rami\AppData\Local\Temp\tmp2834.odc

Data connections have been blocked. If you choose to enable data connections, your computer may no longer be secure. Do not enable this content unless you trust the source of this file.

Enable Disable

Activate Windows
Go to Settings to activate Windows

tmp2834

Ready

The screenshot shows a Microsoft Excel window with a security notice dialog box overlaid. The dialog box is titled 'Microsoft Excel Security Notice' and contains the message: 'Microsoft Office has identified a potential security concern.' It shows the file path 'C:\Users\Rami\AppData\Local\Temp\tmp2834.odc'. Below the message, it says: 'Data connections have been blocked. If you choose to enable data connections, your computer may no longer be secure. Do not enable this content unless you trust the source of this file.' There are two buttons at the bottom: 'Enable' (highlighted in blue) and 'Disable'. The background of the Excel window shows a blank sheet with columns A through W and rows 1 through 30. The status bar at the bottom right indicates 'Activate Windows Go to Settings to activate Windows'. The title bar says 'Book1 - Excel (Product Activation Failed)'.

2 SQL Server Analysis Service-SSAS.

Book1 - Excel (Product Activation Failed)

PivotTable Tools

PivotTable Name: Active Field: PivotTable1

Options: Field Settings, Drill Down, Drill Up, Collapse Field, Group Selection, Ungroup, Group Field, Insert Slicer, Insert Timeline, Filter, Refresh, Change Data Source, Clear, Select, Move, Fields, Items, & Sets, OLAP, Relationships, Tools, PivotChart, Recommended PivotTables, Tools, Field List, +/- Buttons Headers, Show.

A1

PivotTable Fields

To build a report, choose fields from the PivotTable Field List

Search

Σ Fact Sales

Product Dim

Product ID

Product Name

Product Price

Time Dim

Calendar Quarter

FILTERS

COLUMNS

ROWS

VALUES

Activate Windows
Go to Settings to activate Windows. Defer Layout Upd... UPDATE

tmp2834

Ready

100%

2 SQL Server Analysis Service-SSAS.

Book1 - Excel (Product Activation Failed)

PivotTable Tools

PivotTable Name: Active Field:

PivotTable1

Options Field Settings Drill Down Drill Up Expand Field Group Selection Ungroup Group Field Insert Slicer Insert Timeline Filter Refresh Change Data Source Clear Select Move Fields, Items, OLAP Relationships PivotTable Tools Calculations PivotChart Recommended PivotTables Tools Field List Buttons Headers Show

B4

A B C D E F G H I J K L M N O P Q R S T

1

2 PivotTable1

3 To build a report, choose fields from the PivotTable Field List

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30 tmp2834

PivotTable Fields

Choose fields to add to report:

Search

Σ Fact Sales

Qty

Product Dim

Product ID

Product Name

Product Price

Time Dim

Calendar Quarter

Drag fields between areas below:

FILTERS

COLUMNS

ROWS

VALUES

Activate Windows
Go to Settings to activate Windows. Defer Layout Upd... UPDATE

Ready

The screenshot shows a Microsoft Excel window with a PivotTable setup. The ribbon is visible at the top, showing the 'PivotTable Tools' tab is selected. The main area contains a PivotTable placeholder named 'PivotTable1'. A message 'To build a report, choose fields from the PivotTable Field List' is displayed. On the left, there's a 'Field List' icon. The right side features the 'PivotTable Fields' pane, which lists fields from three dimensions: Fact Sales (Qty), Product Dim (Product ID, Product Name, Product Price), and Time Dim (Calendar Quarter). Below the pane, sections for 'FILTERS', 'COLUMNS', 'ROWS', and 'VALUES' are shown. The status bar at the bottom displays 'tmp2834' and a note about activating Windows. The overall interface is designed for data analysis and reporting.

2 SQL Server Analysis Service-SSAS.

PivotTable Tools

PivotTable Name: Active Field: PivotTable1 Qty Options Field Settings Drill Down Drill Up Expand Field Group Selection Analyze Group Ungroup Insert Slicer Insert Timeline Filter Refresh Change Data Source Clear Select Move PivotTable Fields, Items, OLAP Relationships Tools PivotChart Recommended PivotTables Tools Field List +/- Buttons Headers Show

A1 : Qty

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Qty	Column Labels																
2	Row Labels	Accessories	Books	Clothing	Components	Sportswear	Grand Total											
3	2007		110	80	110	30	50	380										
4	2008		195	75	+75	85	80	510										
5	Grand Total	305	155	185	115	130	890											
6																		
7																		
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30																		

Activate Windows
Go to Settings to activate Windows
Defer Layout Upd... UPDATE

tmp2834

Ready

PivotTable Fields

Choose fields to add to report:

Search

Product Dim

Product ID

Product Name

Product Price

Time Dim

Calendar Quarter

Calendar Year

Time ID

Drag fields between areas below:

FILTERS

COLUMNS

ROWS

VALUES

Calendar ... Qty



Book1 - Excel (Product Activation Failed)

PivotTable Tools

Analyze Design Tell me what you want to do...

PivotTable Name: Active Field: PivotTable1 Qty

PivotTable Options Field Settings Drill Down Drill Up Collapse Field Group Selection Group Ungroup Group Field Insert Slicer Timeline Filter Refresh Change Data Source Clear Select Move PivotTable Fields, Items, OLAP Relationships & Sets Tools Calculations PivotChart Recommended PivotTables Tools Field List Buttons Headers Show

A1 Qty

1 Qty Column Labels

2 Row Labels Accessories Books Clothing Components Sportswear Grand Total

3 2007 110 80 110 30 50 380

4 2008 195 75 75 85 80 510

5 Grand Total 305 155 185 115 130 890

PivotTable Fields

Choose fields to add to report:

Search

Product Dim

- Product ID
- Product Name
- Product Price

Time Dim

- Calendar Quarter
- Calendar Year
- Time ID

Drag fields between areas below:

FILTERS

COLUMNS

Product N...

ROWS

VALUES

Calendar ... Qty

Activate Windows

Go to Settings to activate Windows Defer Layout Upd... UPDATE

tmp2834

100%

The screenshot shows a Microsoft Excel window with a PivotTable set up. The PivotTable is currently empty and displays a sample dataset. The PivotTable Fields pane on the right shows fields from the Product Dim and Time Dim tables, with Product Name and Calendar Year selected. The PivotTable Tools ribbon tab is selected, and the Analyze tab is active. The status bar at the bottom shows the file name 'Book1 - Excel (Product Activation Failed)' and the cell reference 'A1'.

Book1 - Excel (Product Activation Failed)

PivotTable Tools

File Home Insert Page Layout Formulas Data Review View Add-ins Team Analyze Design Tell me what you want to do...

PivotTable Name: Active Field: PivotTable1 PivotTable Name: Active Field: Qty

PivotTable Tools ribbon tabs: Analyze, Design, Data, Actions, Calculations, Tools, Show.

D4

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	
1	Qty	Column Labels																	
2	Row Labels	Accessories	Books	Clothing	Components	Sportswear	Grand Total												
3	2007		110	80	110		30	50	380										
4	2008		195	75	75		85	80	510										
5	Grand Total		305	155	185		115	130	890										
6																			
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PivotTable Fields pane:

- Product Dim
 - Product ID
 - Product Name
 - Product Price
- Time Dim
 - Calendar Quarter
 - Calendar Year
 - Time ID

Drag fields between areas below:

FILTERS: Product N...

COLUMNS: Product N...

ROWS: Calendar ...

VALUES: Qty

Activate Windows: Go to Settings to activate Windows. Defer Layout Upd... UPDATE

tmp2834

Ready

100%

File Home Insert Page Layout Formulas Data Review Add-ins Team Analyze Design Tell me what you want to do...

PivotTable Recommended PivotTables Tables PivotTables Recommended Charts Charts Tours Sparklines Filters Links Text Symbols

PivotTable Recommended PivotTables Tables PivotTables Recommended Charts Charts Tours Sparklines Filters Links Text Symbols

PivotTable Recommended PivotTables Tables PivotTables Recommended Charts Charts Tours Sparklines Filters Links Text Symbols

D4 75

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Qty	Column Labels																
2	Row Labels	Accessories	Books	Clothing	Components	Sportswear	Grand Total											
3	2007		110	80	110		30	50		380								
4	2008		195	75	75		85	80		510								
5	Grand Total		305	155	185		115	130		890								
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PivotTable Fields

Choose fields to add to report:

Search

Product Dim

Product ID

Product Name

Product Price

Time Dim

Calendar Quarter

Calendar Year

Time ID

Drag fields between areas below:

FILTERS

COLUMNS

ROWS

VALUES

Activate Windows

Go to Settings to activate Windows.

Defer Layout Upd...

UPDATE

tmp2834

Ready

2 SQL Server Analysis Service-SSAS.

Book1 - Excel (Product Activation Failed)

PivotTable Tools Analyze Design Tell me what you want to do...

PivotTable Recommended PivotTables Tables Illustrations Add-ins Store Visio Data Visualizer Bing Maps People Graph My Add-ins Add-ins

D4 75

	A	B	C	D	E	F	G	H	I
1	Qty	Column Labels							
2	Row Labels	Accessories	Books	Clothing	Components	Sportswear	Grand Total		
3	2007		110	80	110	30	50	380	
4	2008		195	75	75	85	80	510	
5	Grand Total	305	155	185	115	130	890		
6									
7									
8									
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PivotTable Fields

Choose fields to add to report:

Search

Product Dim

Product Name

Product Price

Time Dim

Calendar Year

Time ID

Drag fields between areas below:

FILTERS

COLUMNS

ROWS

VALUES

Activate Windows
Go to Settings to activate Windows. Defer Layout Upd... UPDATE

ttmp2834

Ready

100%

Book1 - Excel (Product Activation Failed)

PivotTable Tools

Chart 1

Row Labels: Accessories, Books, Clothing, Components, Sportswear, Grand Total

Data:

	Qty	Accessories	Books	Clothing	Components	Sportswear	Grand Total
2007	110	80	110	30	50	380	380
2008	195	75	75	85	80	510	510
Grand Total	305	155	185	115	130	890	

Chart Type: 2-D Column

Legend: Product Name

- Accessories (Blue)
- Books (Orange)
- Clothing (Grey)
- Components (Yellow)
- Sportswear (Dark Blue)

PivotTable Fields

Choose fields to add to report:

Search:

Product Dim: Product ID, Product Name, Product Price

Time Dim: Calendar Quarter, Calendar Year, Time ID

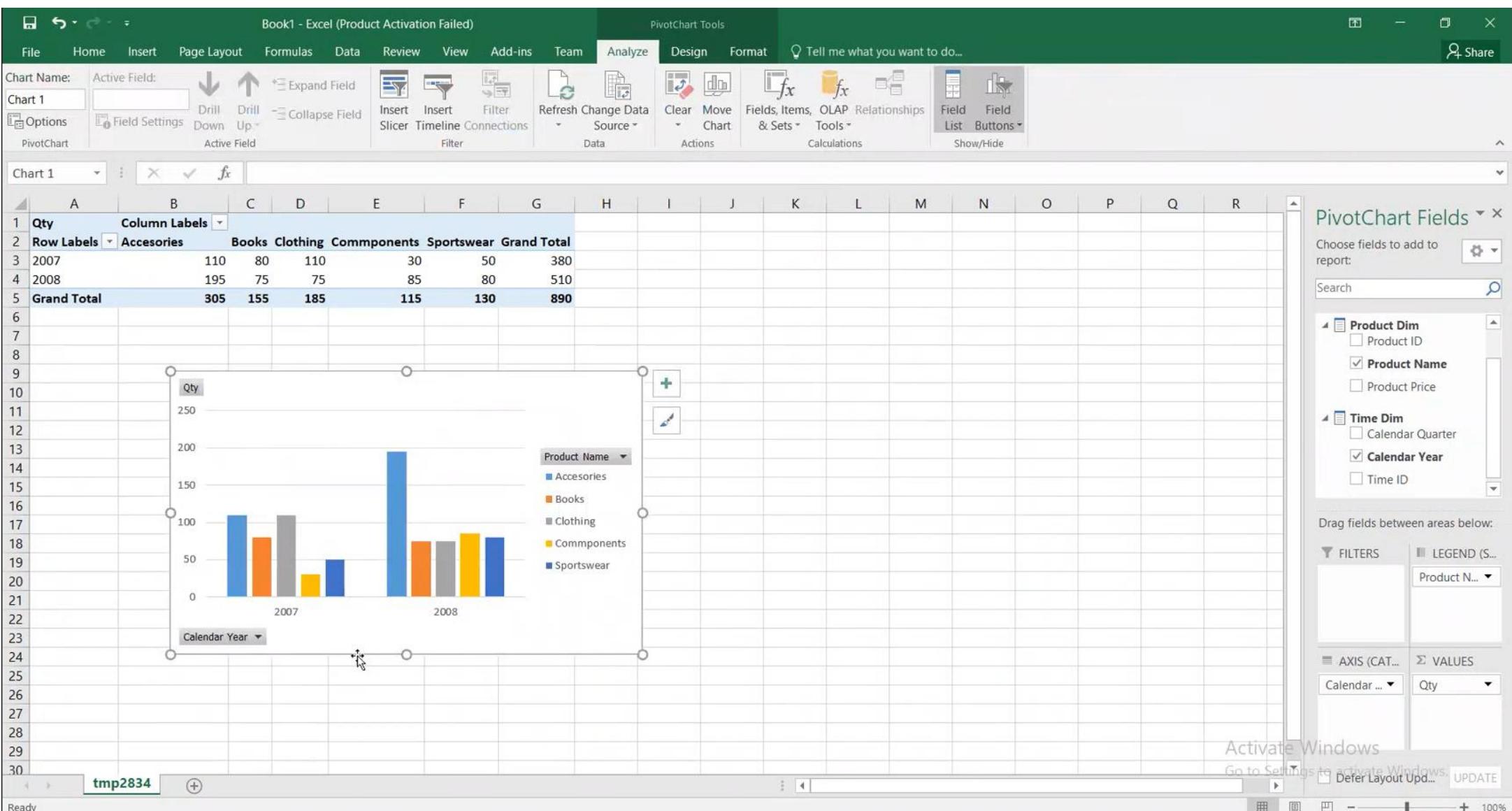
Drag fields between areas below:

FILTERS: Product N...

COLUMNS: Product N...

ROWS: Calendar ...

VALUES: Qty



Book1 - Excel (Product Activation Failed)

File Home Insert Page Layout Formulas Data Review View Add-ins Team Tell me what you want to do...

Cut Copy Format Painter

Font Alignment Number Styles Cells Editing

J15

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	Qty	Column Labels																				
2	Row Labels	Accessories	Books	Clothing	Components	Sportswear	Grand Total															
3	2007		110	80	110	30	50															
4	2008		195	75	75	85	80															
5	Grand Total	305	155	185	115	130	890															
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Activate Windows
Go to Settings to activate Windows.

tmp2834

Ready

Qty

Product Name

- Accessories
- Books
- Clothing
- Components
- Sportswear

Calendar Year

Book1 - Excel (Product Activation Failed)

PivotChart Tools

File Home Insert Page Layout Formulas Data Review View Add-ins Team Analyze Design Format Tell me what you want to do...

Chart Name: Active Field: Expand Field
Chart 2 Drill Down Drill Up Collapse Field
Options Field Settings Active Field
PivotChart

Insert Insert Filter Refresh Change Data Source
Slicer Timeline Connections Filter Data
Clear Move Fields, Items, OLAP Relationships
Actions & Sets Tools Calculations
Field List Field Buttons Show/Hide

Chart 2 : fx

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R		
1	Qty	Column Labels																		
2	Row Labels	Accessories	Books	Clothing	Components	Sportswear	Grand Total													
3	2007	110	80	110	30	50	380													
4	2008	195	75	75	85	80	510													
5	Grand Total	305	155	185	115	130	890													
6																				
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29																				
30																				

Qty

Product Name: Accessories, Books, Clothing, Components, Sportswear

Calendar Year: 2007, 2008

Accessories

Product Name: Accessories, Books, Clothing, Components, Sportswear

Calendar Year: 2007, 2008

PivotChart Fields

Choose fields to add to report:

Search

- Product Dim
 - Product ID
 - Product Name
 - Product Price
- Time Dim
 - Calendar Quarter
 - Calendar Year
 - Time ID

Drag fields between areas below:

FILTERS

LEGEND (S...)

AXIS (CAT...)

VALUES

Activate Windows

Go to Settings to activate Windows.

Defer Layout Upd...

UPDATE

tmp2834

Ready

Book1 - Excel (Product Activation Failed)

File Home Insert Page Layout Formulas Data Review View Add-ins Team Analyze Design Format Tell me what you want to do...

Chart Name: Active Field: Chart 2 Expand Field
Chart 2 Field Settings Drill Down Drill Up Collapse Field
Options PivotChart

Insert Slicer Refresh Change Data Source
Insert Timeline Connections Clear Move Fields, Items, OLAP Relationships
Filter Filter Actions Tools Calculations
Show/Hide

Chart 2 fx

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R			
1	Qty	Column Labels																			
2	Row Labels	Accessories	Books	Clothing	Components	Sportswear	Grand Total														
3	2007		110	80	110	30	50	380													
4	2008		195	75	75	85	80	510													
5	Grand Total	305	155	185	115	130	890														
6	Qty																				
7	Qty																				
8	250																				
9	200																				
10	150																				
11	100																				
12	2007	110	80	110	30	50	380														
13	2008	195	75	75	85	80	510														
14	Grand Total	305	155	185	115	130	890														
15	Qty																				
16	250																				
17	200																				
18	150																				
19	100																				
20	50																				
21	0																				
22	2007	110	80	110	30	50	380														
23	2008	195	75	75	85	80	510														
24	Grand Total	305	155	185	115	130	890														
25	Qty																				
26	250																				
27	200																				
28	150																				
29	100																				
30	0																				

Qty

Product Name: Accessories Books Clothing Components Sportswear

Calendar Year: 2007 2008

Accessory

Product Name: Accessories Books Clothing Components Sportswear

Calendar Year: 2007 2008

Activate Windows Go to Settings to activate Windows. Defer Layout Update UPDATE

PivotChart Fields

Choose fields to add to report:

Search

Product Dim: Product Name

Time Dim: Calendar Year

FILTERS

AXIS (CAT...)

VALUES

Connecting to datasource...

tmp2834

Book1 - Excel (Product Activation Failed)

Analyze

Chart Name:	Active Field:	↓	↑	Expand Field
Chart 2		Drill Down	Drill Up	- Collapse Field
Options	Field Settings			
PivotChart	Active Field			

Design

Format

Tell me what you want to do...

Chart 2

PivotChart Fields

Choose fields to add to report:

Search

- Product Dim**
 - Product ID
 - Product Name
 - Product Price
- Time Dim**
 - Calendar Quarter
 - Calendar Year
 - Time ID

Drag fields between areas below:

FILTERS

LEGEND (S...)

AXIS (CAT...)

VALUES

Activate Windows
Go to Settings to activate Windows. Defer Layout Upd... UPDATE

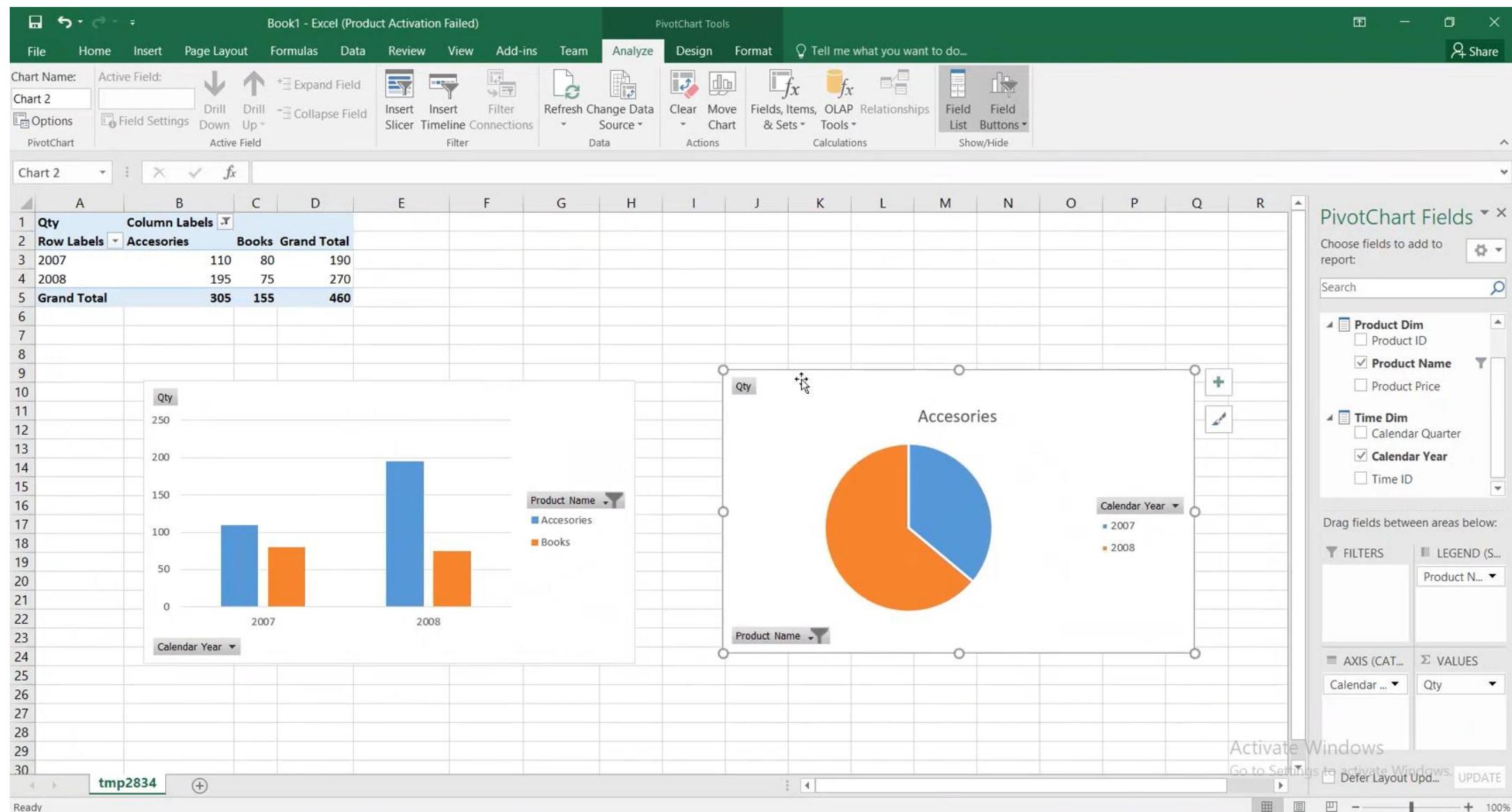
Data

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Qty	Column Labels																
2	Row Labels	Accessories	Books	Clothing	Components	Sportswear	Grand Total											
3	2007	110	80	110	30	50	380											
4	2008	195	75	75	85	80	510											
5	Grand Total	305	155	185	115	130	890											
6																		
7																		
8																		
9																		
10																		
11																		
12																		
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24																		
25																		
26																		
27																		
28																		
29																		
30																		

tmp2834

Ready

The chart consists of two main components. On the left, there is a grouped bar chart titled 'Qty' showing the quantity of five product categories (Accessories, Books, Clothing, Components, Sportswear) for the years 2007 and 2008. The Y-axis ranges from 0 to 250. The legend indicates: Accessories (blue), Books (orange), Clothing (grey), Components (yellow), and Sportswear (dark blue). A filter for 'Calendar Year' is applied. On the right, there is a pie chart titled 'Accessories' showing the distribution of accessories by product name. The legend indicates: Accessories (blue), Books (orange), Clothing (grey), Components (yellow), and Sportswear (dark blue). A filter for 'Product Name' is applied.





Info

New

Open

Save

Save As

Print

Share

Export

Publish

Close

Account

Options

Save As

OneDrive - Personal
rami_is@hotmail.com

OneDrive - Personal



This PC



Add a Place



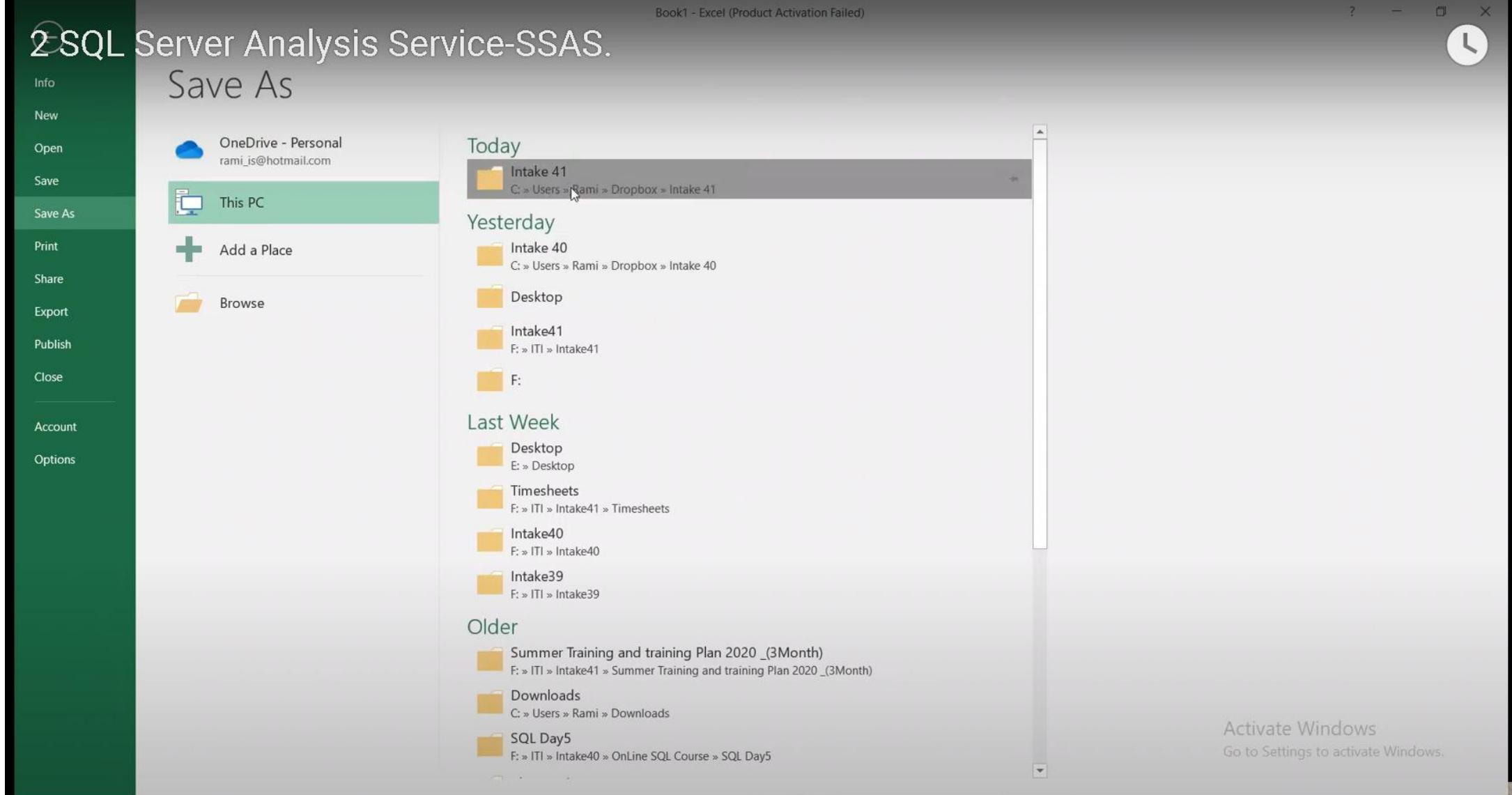
Browse

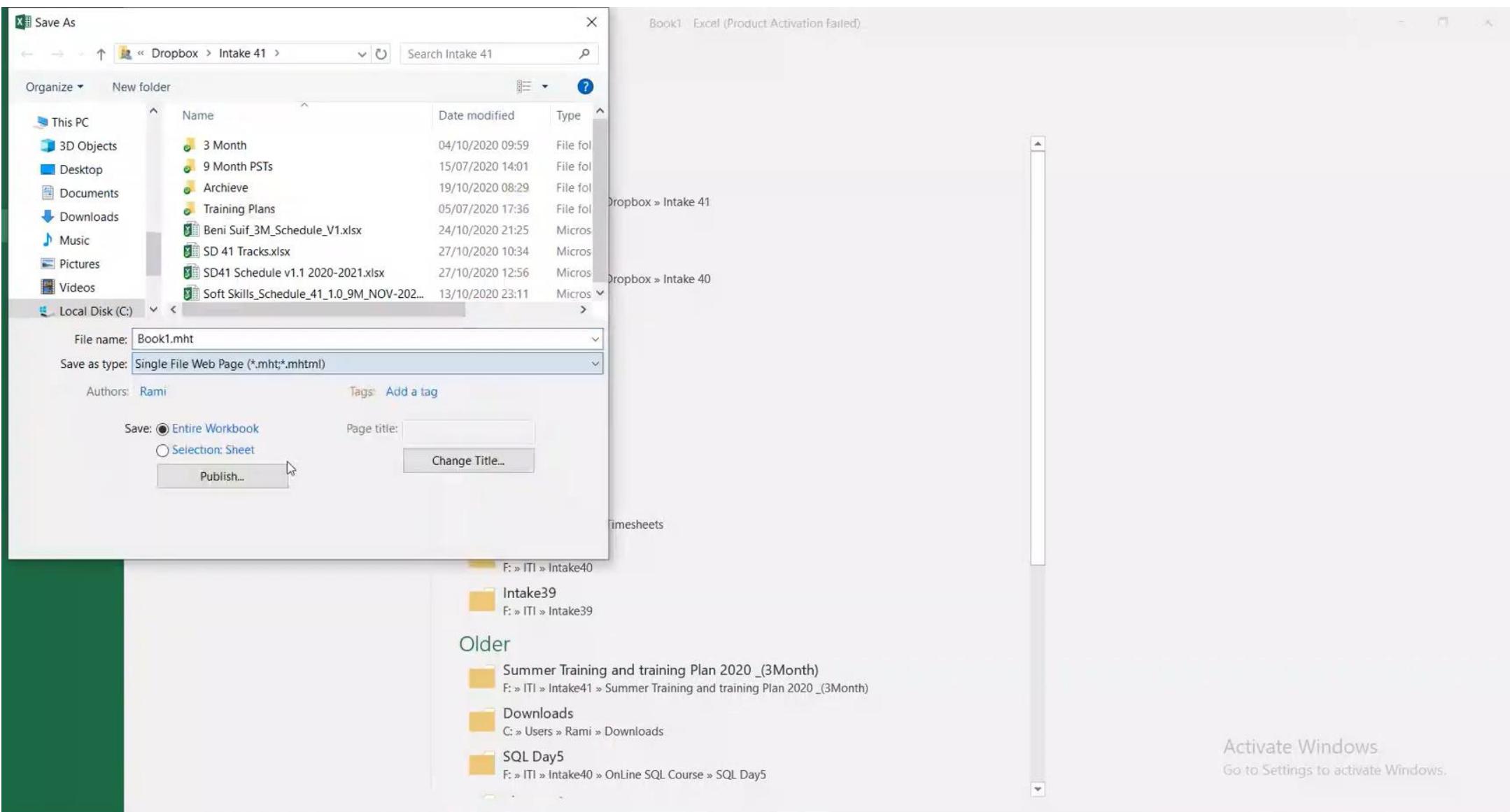


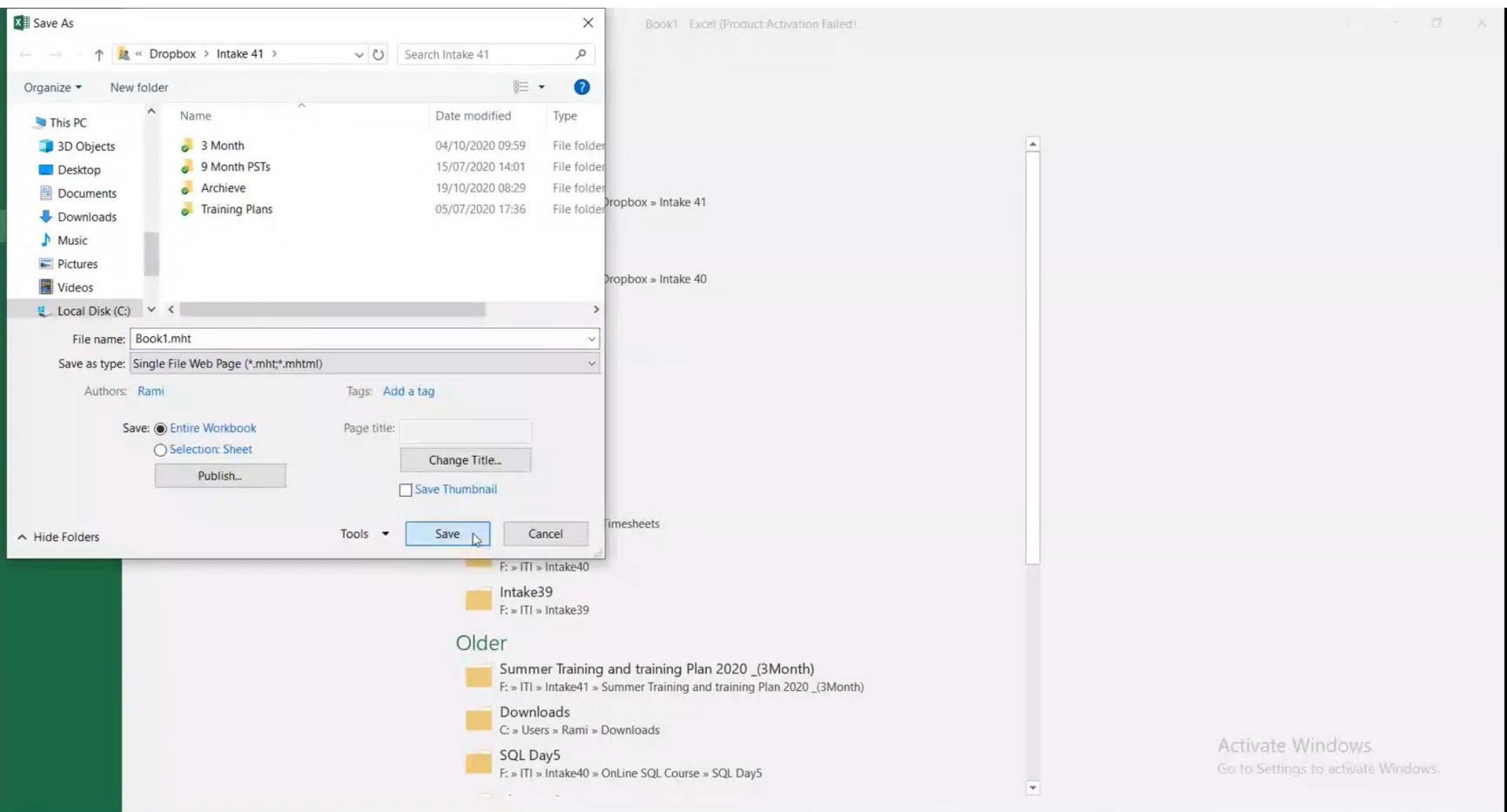
Activate Windows
Go to Settings to activate Windows.

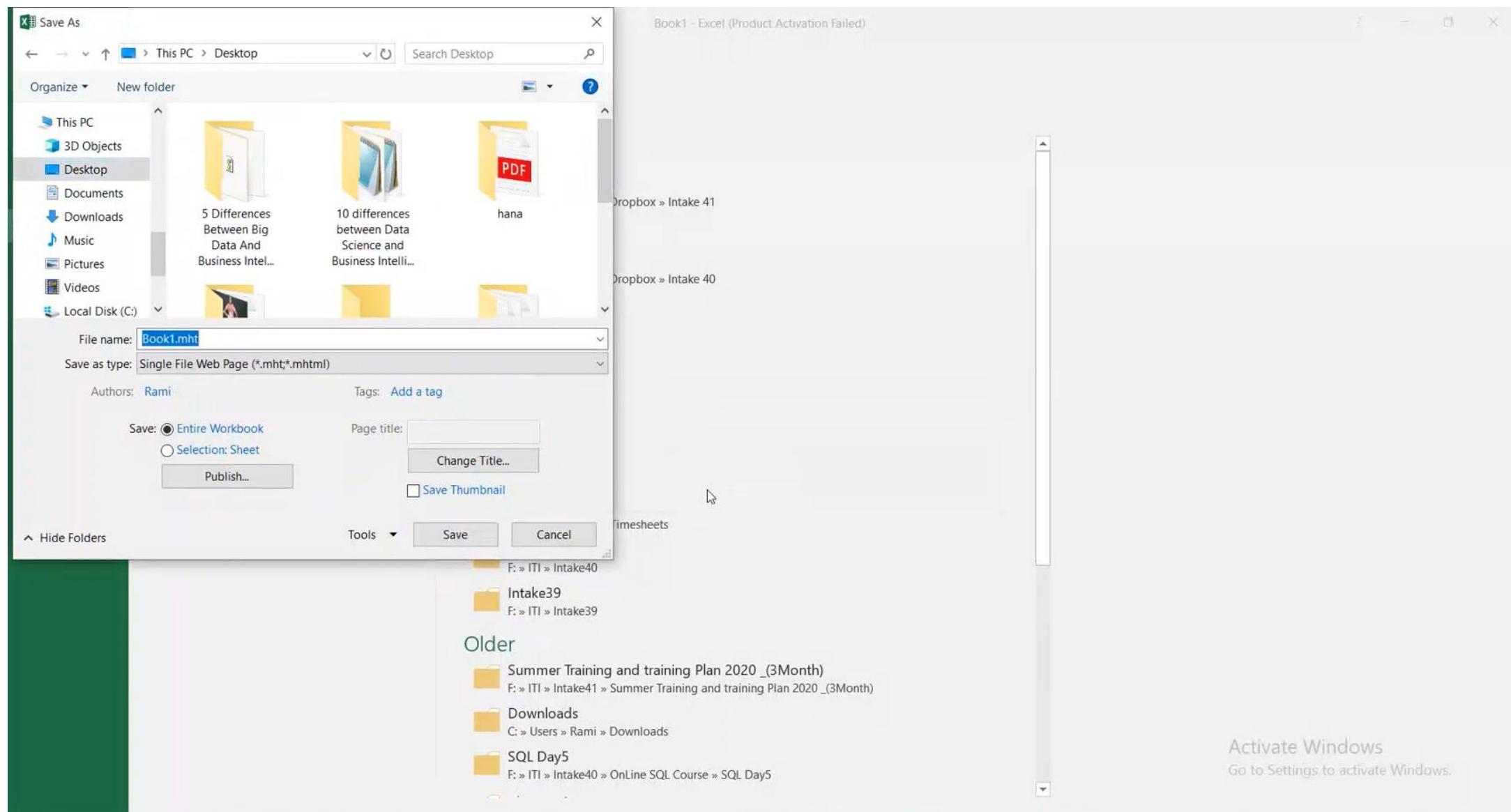
2 SQL Server Analysis Service-SSAS.

Save As









MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File Edit View Project Build Debug Team Database Cube Tools Architecture Test Analyze Window Help

Develop Default Start

Quick Launch (Ctrl+Q) Sign in

SQL Server Object Explor... Sales.cube [Design] Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Language: Default

Edit as Text Import...

Sales

Dimension Hierarchy Operator Filter Expression Parameters

<Select dimension>

Measure Group: <All>

Sales

Measures

Fact Sales

Qty

KPIs

Product Dim

Product ID

Product Name

Product Price

Time Dim

Calendar Quarter

Calendar Year

Time ID

Calculated Members

Calendar Year	Product Name	Qty
2007	Accessories	110
2007	Books	80
2007	Clothing	110
2007	Components	30
2007	Sportswear	50
2008	Accessories	195
2008	Books	75
2008	Clothing	75
2008	Components	85
2008	Sportswear	80

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL... Output Error List Data Tools Operations

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

Sales.cube [Design] Sales.csv [Design]

File View Project Tools Analyze Window Help

Developer Default Start

Quick Launch (Ctrl+Q) Sign In

SQL Server Object Explor... X

SQL Server (localdb)\MSSQLLocalDB (localdb)\ProjectsV13 I Projects - Multidimension...

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Edit as Text Import... Analyze in Excel

Dimension Hierarchy Operator Filter Expression Parameters

<Select dimension>

Measure Group: <All>

Sales

Metadata

Measure Group: <All>

Sales

Measures

Fact Sales

Qty

KPIs

Product Dim

Product ID

Product Name

Product Price

Time Dim

Calendar Quarter

Calendar Year

Time ID

Calculated Members

Calendar Year	Product Name	Qty
2007	Accessories	110
2007	Books	80
2007	Clothing	110
2007	Components	30
2007	Sportswear	50
2008	Accessories	195
2008	Books	75
2008	Clothing	75
2008	Components	85
2008	Sportswear	80

Serve... Toolb... SSIS T... SQL...

Output Error List Data Tools Operations

Activate Windows
Go to Settings to activate Windows.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File Edit View Project Build Debug Team Format Database Data Source View Cube Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q) Sign in

SQL Server Object Explor... Default Start

Sales.cube [Design] Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Measures

- Sales
 - Fact Sales
 - Qty

Dimensions

- Sales
 - Product Dim
 - Edit Product Dim
 - Attributes
 - Product ID
 - Product Name
 - Product Price
 - Time Dim
 - Edit Time Dim
 - Attributes
 - Calendar Quarter
 - Calendar Year
 - Time ID

Data Source View

```
graph TD; FactSales[Fact Sales] --> TimeDim[TimeDim]; FactSales --> ProductDim[ProductDim];
```

The diagram illustrates the relationships between three dimensions:

- Fact Sales**: Contains ProductID, CustomerID, SalesmanID, ChannelID, TimeID, Qty, and Qty Total price.
- TimeDim**: Contains TimeID, CalendarQuarter, and CalendarYear.
- ProductDim**: Contains ProductID, ProductName, ProductPrice, and ProductCategory.

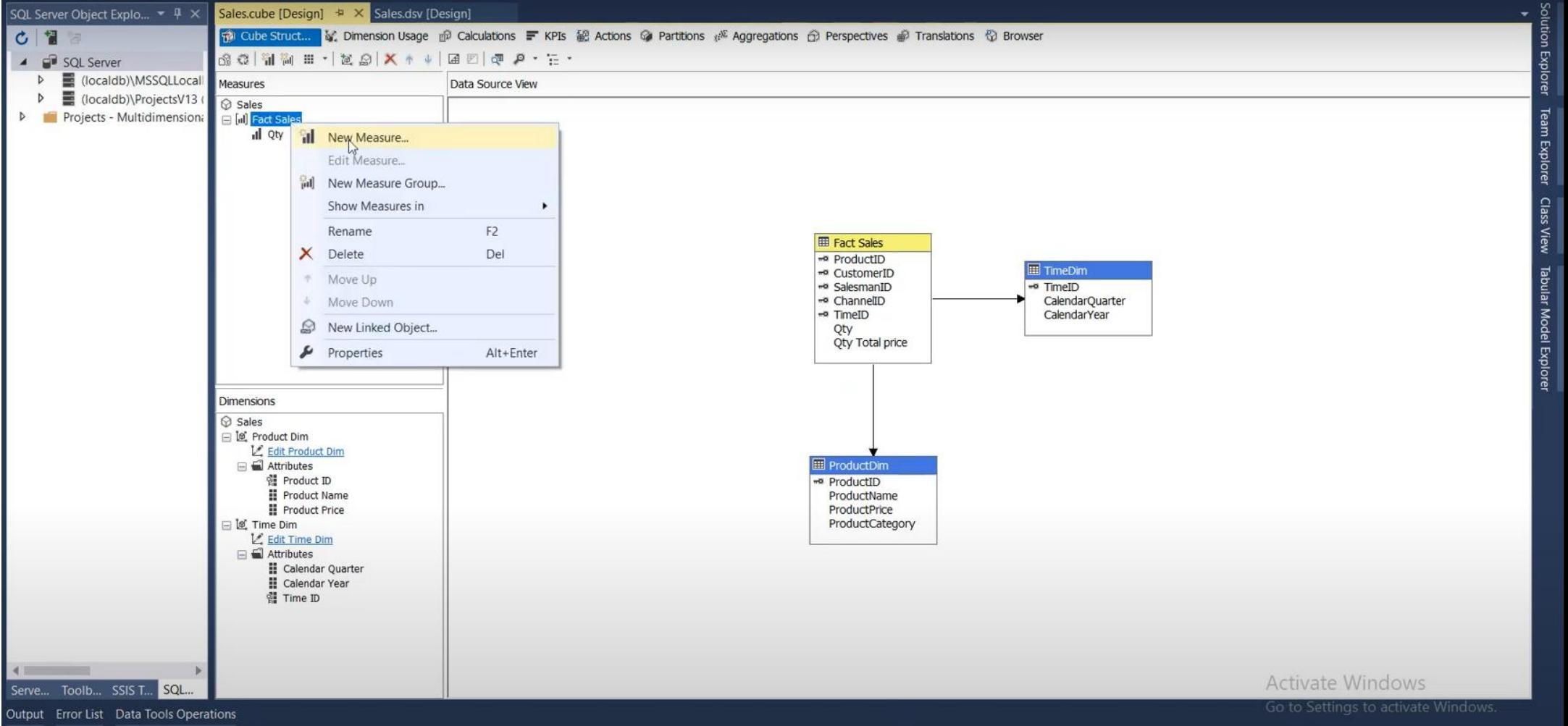
Relationships:

- An arrow points from Fact Sales to TimeDim.
- An arrow points from Fact Sales to ProductDim.

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL... Output Error List Data Tools Operations Ready ↑ Publish

2 SQL Server Analysis Service-SSAS.



2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

SQL Server Object Explor... Sales.cube [Design] Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

SQL Server

- (localdb)\MSSQLLocalDB
- (localdb)\ProjectsV13
- Projects - Multidimensional

Measures

- Sales
 - Fact Sales
 - Qty

Dimensions

- Sales
 - Product Dim
 - Edit Product.Dim
 - Attributes
 - Product ID
 - Product Name
 - Product Price
- Time Dim
 - Edit Time.Dim
 - Attributes
 - Calendar Quarter
 - Calendar Year
 - Time ID

New Measure

Usage: Sum

Source table: Count of non-empty values
Minimum
Maximum
Distinct count
No aggregations
Account
Average over time
First value
Last value
First non-empty value
Last non-empty value

Source column: TimeDim

- TimeID
- CalendarQuarter
- CalendarYear

Show all columns

OK Cancel Help

Activate Windows
Go to Settings to activate Windows.

Serve... Toolbars SSIS T... SQL...
Output Error List Data Tools Operations
Ready

Quick Launch (Ctrl+Q) Sign In

Solution Explorer Team Explorer Class View Tabular Model Explorer

Publish

The screenshot shows the Microsoft Visual Studio interface for creating a new measure in a multidimensional cube named 'Sales.cube'. The 'New Measure' dialog is open, displaying various aggregation options under 'Usage' (e.g., Sum, Count of non-empty values, Minimum, Maximum, Distinct count, No aggregations, Account, Average over time, First value, Last value, First non-empty value, Last non-empty value). The 'Source table' dropdown is set to 'Fact Sales', and the 'Source column' dropdown is set to 'TimeDim'. A preview pane on the right shows the 'TimeDim' dimension with its attributes: 'TimeID', 'CalendarQuarter', and 'CalendarYear'. At the bottom of the dialog are 'OK', 'Cancel', and 'Help' buttons. The background shows the Visual Studio ribbon with tabs like 'File', 'Edit', 'View', etc., and the Solution Explorer, Team Explorer, and Class View panes on the right.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

2 SQL Server Analysis Service-SSAS.

SQL Server Object Explor... Sales.cube [Design] Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Measures

- Sales
 - Fact Sales
 - Qty

Dimensions

- Sales
 - Product Dim
 - Edit Product Dim
 - Time Dim
 - Edit Time Dim

New Measure

Usage: Sum

Source table: Sum
Count of rows
Count of non-empty values
Minimum
Maximum
Distinct count
No aggregations
Account

Average over time

Source column: First value
Last value
First non-empty value
Last non-empty value

OK Cancel Help

TimeDim
TimeID
CalendarQuarter
CalendarYear

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL... Output Error List Data Tools Operations Ready Publish

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

Sales.cube [Design] Sales.dsv [Design]

Cube Structure Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

SQL Server Object Explorer

Measures

Sales

Fact Sales

Qty

Dimensions

Sales

Product Dim

Edit Product Dim

Attributes

Product ID

Product Name

Product Price

Time Dim

Edit Time Dim

Attributes

Calendar Quarter

Calendar Year

Time ID

New Measure

Usage: Average over time

Source table: Fact Sales

Source column:

- CustomerID
- SalesmanID
- ChannelID
- Qty
- Qty Total price

Show all columns

OK Cancel Help

TimeDim

TimeID

CalendarQuarter

CalendarYear

Activate Windows
Go to Settings to activate Windows.

Serve... Toolb... SSIS T... SQL...

Output Error List Data Tools Operations

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File View Database Project Data Tools Test Window Help

Quick Launch (Ctrl+Q) Sign In

SQL Server Object Explorer Sales(cube [Design]) Sales.dsv [Design]

Cube Structure Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Measures

- Sales
 - [n] Fact Sales
 - Qty

Dimensions

- Sales
 - Product Dim
 - [Edit Product Dim](#)
 - Attributes
 - Product ID
 - Product Name
 - Product Price
 - Time Dim
 - [Edit Time Dim](#)
 - Attributes
 - Calendar Quarter
 - Calendar Year
 - Time ID

New Measure

Usage: Average over time

Source table: Fact Sales

Source column:

- CustomerID
- SalesmanID
- ChannelID
- Qty
- Qty Total price

Show all columns

OK Cancel Help

TimeDim

- TimeID
- CalendarQuarter
- CalendarYear

Activate Windows
Go to Settings to activate Windows.

Output Error List Data Tools Operations

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File Edit View Project Build Debug Team Format Database Data Source View Cube Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q) Sign in

SQL Server Object Explor... Sales.cube [Design]* Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Measures

- Sales
 - Fact Sales
 - Qty
 - Qty - Fact Sales

Dimensions

- Sales
 - Product Dim
 - Edit Product Dim
 - Attributes
 - Product ID
 - Product Name
 - Product Price
 - Time Dim
 - Edit Time Dim
 - Attributes
 - Calendar Quarter
 - Calendar Year
 - Time ID

Data Source View

```
graph TD; FS[Fact Sales] --> TD[TimeDim]; FS --> PD[ProductDim];
```

The diagram illustrates the relationships between three dimensions:

- Fact Sales**: Contains attributes ProductID, CustomerID, SalesmanID, ChannelID, TimeID, Qty, and Qty Total price.
- TimeDim**: Contains attributes TimeID, CalendarQuarter, and CalendarYear.
- ProductDim**: Contains attributes ProductID, ProductName, ProductPrice, and ProductCategory.

Relationships:

- A line connects the Fact Sales dimension to the TimeDim dimension.
- A line connects the Fact Sales dimension to the ProductDim dimension.

Activate Windows
Go to Settings to activate Windows.

Output Error List Data Tools Operations

Ready Publish

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Open Recent Database Administration Analyze Window Help

SQL Server Object Explorer

Sales.cube [Design] * Sales.dsv [Design]

Cube Structure Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Measures

- Sales
 - Fact Sales
 - Qty
 - Qty - Fact Sales

Dimensions

- Sales
 - Product Dim
 - Edit Product Dim
 - Attributes
 - Product ID
 - Product Name
 - Product Price
 - Time Dim
 - Edit Time Dim
 - Attributes
 - Calendar Quarter
 - Calendar Year
 - Time ID

Data Source View

Fact Sales

- ProductID
- CustomerID
- SalesmanID
- ChannelID
- TimeID
- Qty
- Qty Total price

ProductDim

- ProductID
- ProductName
- ProductPrice
- ProductCategory

Context menu for Fact Sales:

- Open
- Process... **...**
- Browse
- View Code F7
- View Designer Shift+F7
- Add Business Intelligence...
- Scope to This
- New Solution Explorer View
- Exclude From Project
- Cut Ctrl+X
- Copy Ctrl+C
- Delete Del
- Rename
- Properties Alt+Enter

Solution Explorer

Search Solution Explorer (Ctrl+.)

Solution 'MultidimensionalProject14' (1 project)

- MultidimensionalProject14
 - Data Sources
 - Sales.ds
 - Data Source Views
 - Sales.dsv
 - Cubes
 - Sales.cube

Team Explorer Class View Tabular Model Explorer

Activate Windows Go to Settings to activate Windows.

↑ Publish

This item does not support previewing

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Project Database Developer Default

SQL Server Object Explorer

Sales.cube [Design] Sales.dsv

Cube Structure Dimension Usage

Object list:

Object Name	Type	Process Options	Settings
Sales	Cube	Process Full	

Measures

Sales

Fact Sales

Qty

Qty - Fact Sales

Remove Impact Analysis...

Batch Settings Summary

Processing order: Parallel

Transaction mode: (Default)

Dimension errors: (Default)

Dimension key error log path: (Default)

Process affected objects: (Default)

Do not process

Change Settings... Run Close

Error List

Entire Solution 0 Errors 3 Warnings 0 Messages

Code Description

MeasureGroup [Sales].[Fact Sales] : Semi-additive measure

Dimension [Time Dim] : Create hierarchies in non-parent dimensions

Dimension [Product Dim] : Create hierarchies in non-parent dimensions

Database [MultidimensionalProject14] : The database has been modified since it was last processed or compacted

Output Error List Data Tools Operations

Quick Launch (Ctrl+Q) Sign In

Solution Explorer Team Explorer Class View Tabular Model Explorer

Search Error List

Activate Windows
Go to Settings to activate Windows.

SQL Server Object Explorer

Sales.cube [Design] Sales.dsv

Object Explorer

SQL Server

- (localdb)\MSSQLLocalDB
- (localdb)\ProjectsV13
- Projects - Multidimensional

Measures

- Sales
 - Fact Sales
 - Qty
 - Qty - Fact Sales

Process Cube - Sales

Object list:

Object Name	Type	Process Options	Settings
Sales	Cube	Process Full	

Remove Impact Analysis...

Batch Settings Summary

Processing order:
Parallel

Transaction mode:
(Default)

Dimension errors:
(Default)

Dimension key error log path:
(Default)

Process affected objects:
Do not process

Change Settings... Run... Close

Quick Launch (Ctrl+Q) Sign In

Solution Explorer Team Explorer Class View Tabular Model Explorer

Error List

Entire Solution 0 Errors 3 Warnings 0 Messages

Code	Description
MeasureGroup [Sales].[Fact Sales]	: Semi-additive measure
Dimension [Time Dim]	: Create hierarchies in non-parent dimensions
Dimension [Product Dim]	: Create hierarchies in non-parent dimensions
Database [MultidimensionalProject14]	: The database has

Search Error List

Activate Windows
Go to Settings to activate Windows.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File Edit View Project Build Debug Team Format Database Data Source View Cube Tools Architecture Test Analyze Window Help

Quick Launch (Ctrl+Q) Sign in

SQL Server Object Explor... Sales.cube [Design]* Sales.dsv [Design]

Cube Struct... Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Measures

- Sales
 - [ml] Fact Sales
 - Qty

Data Source View

Fact Sales

- ProductID
- CustomerID
- SalesmanID
- ChannelID
- TimeID
- Qty
- Qty Total price

TimeDim

- TimeID
- CalendarQuarter
- CalendarYear

DESKTOP-VF50P25.sales - dbo.Fact Sales - Microsoft SQL Server Management Studio

File Edit View Project Debug Query Designer Tools Window Help

New Query

Object Explorer

Connect

- Database Snapshots
- AdventureWorks2012
- AdventureWorksDW2012
- Company_SD
- ITI
- Mansoura_DB
- MyDW
- ReportServer
- ReportServerTempDB
- sales**
 - Database Diagrams
 - dbo.sales Diagram
 - Tables
 - System Tables
 - FileTables
 - External Tables
 - dbo.ChannelDim

Properties Template Browser

eID	Qty	Qty Total price
10	170	
20	300	
5	50	
10	50	
30	300	
20	200	
10	150	
30	320	
30	310	
20	190	
30	300	
5	55	
20	250	
30	500	
20	600	

Activate Windows Go to Settings to activate Windows.

Activate Windows 13:00 ENG 27/10/2020 Go to Settings to activate Window

Solution Explorer Team Explorer Class View Tabular Model Explorer

2 SQL Server Analysis Service-SSAS.

MultidimensionalProject14 - Microsoft Visual Studio (Administrator)

File New Recent File Open Recent File Analyze Window Help

SQL Server Object Explorer Sales.cube [Design] Sales.ds [Design]

Cube Structure Dimension Usage Calculations KPIs Actions Partitions Aggregations Perspectives Translations Browser

Measures Sales Fact Sales Qty

Dimensions Sales Product Dim Edit Product Dim Attributes Product ID Product Name Product Price Time Dim Edit Time Dim Attributes Calendar Quarter Calendar Year Time ID

Data Source View

Fact Sales

- ProductID
- CustomerID
- SalesmanID
- ChannelID
- TimeID
- Qty
- Qty Total price

TimeDim

- TimeID
- CalendarQuarter
- CalendarYear

ProductDim

- ProductID
- ProductName
- ProductPrice
- ProductCategory

New Data Source View... Sort by name Paste Ctrl + V

Search Solution Explorer (Ctrl + F) Solution 'MultidimensionalProject14' (1 project)

MultidimensionalProject14 Data Sources Sales.ds Data Source Views Sales.ds

Product Dim.dim Time Dim.dim Mining Structures Roles Assemblies Miscellaneous

Activate Windows Go to Settings to activate Windows.

Output Data Tools Operations

OLAP Cube.

Calculate all Aggregate values From Cube.

Drag Qty.

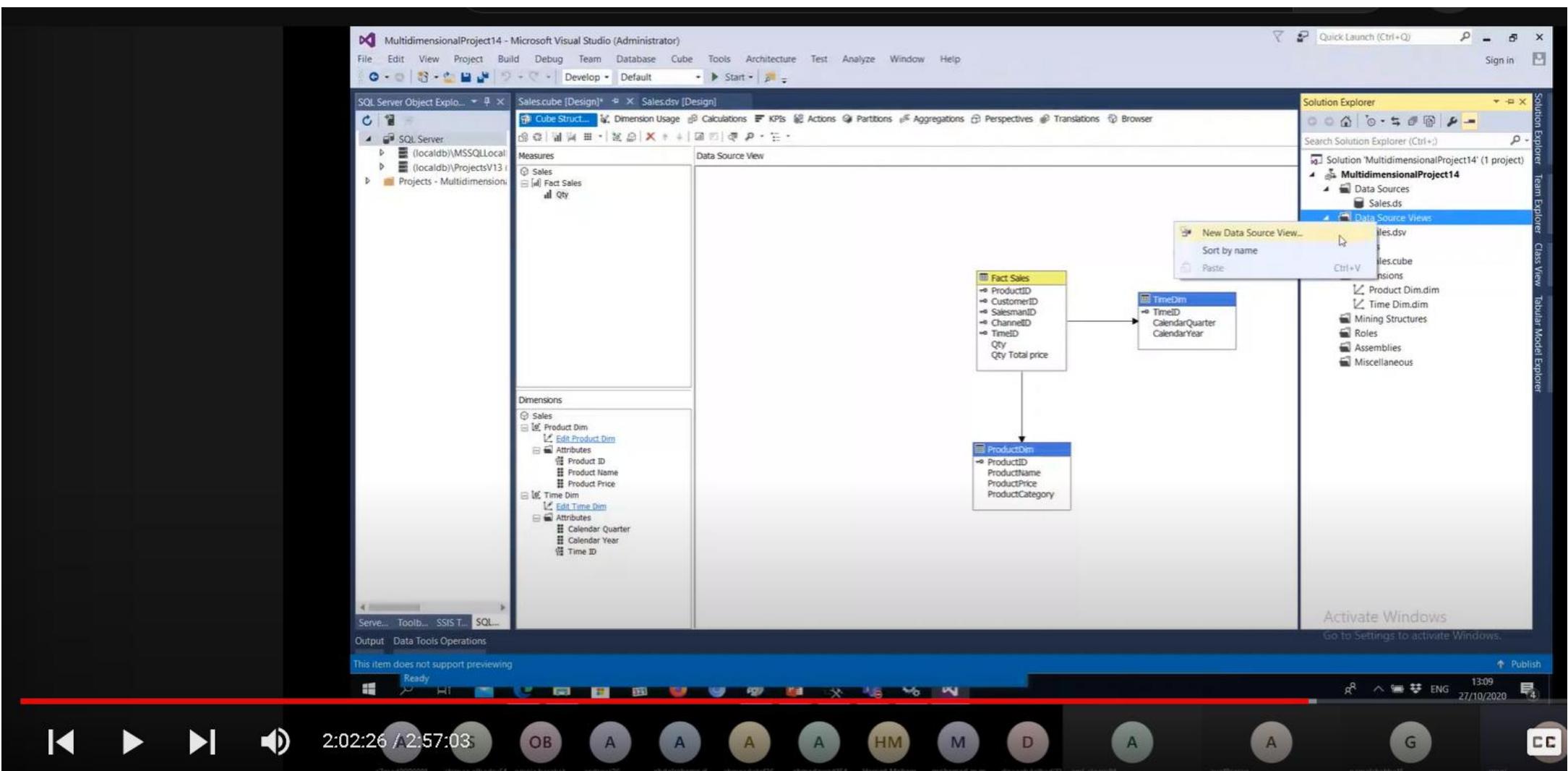
QTY per product.

Qty per Year.

mdx query background.

Pivot table fields.

SSAS Cube Browser.



2 SQL Server Analysis Service-SSAS.

Measure per Attribute.

Total Sales per Product.

Measure per Attribute.

run Cube Because you Extract Data From Database

Measure per Attribute.

Make Anything Documentation and notes.

Fact sales Qty per Product dim Attribute Product

Name.