

Subject: Data Warehousing and Data Mining

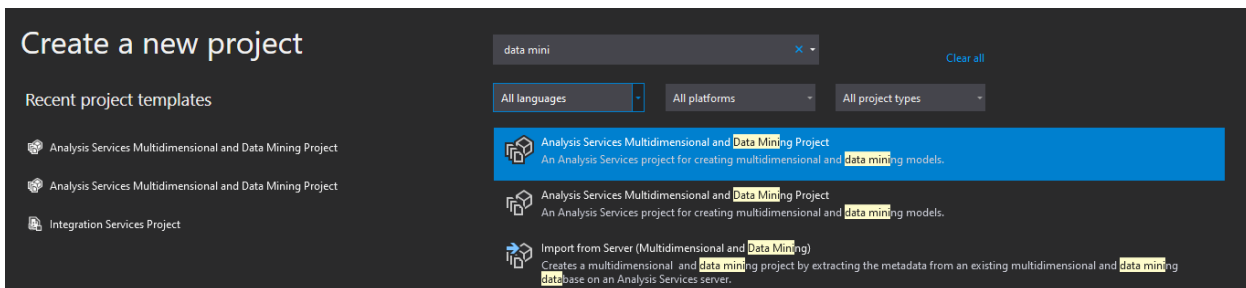
Name : Suraj Ravindra Mhatre

Roll no: 35

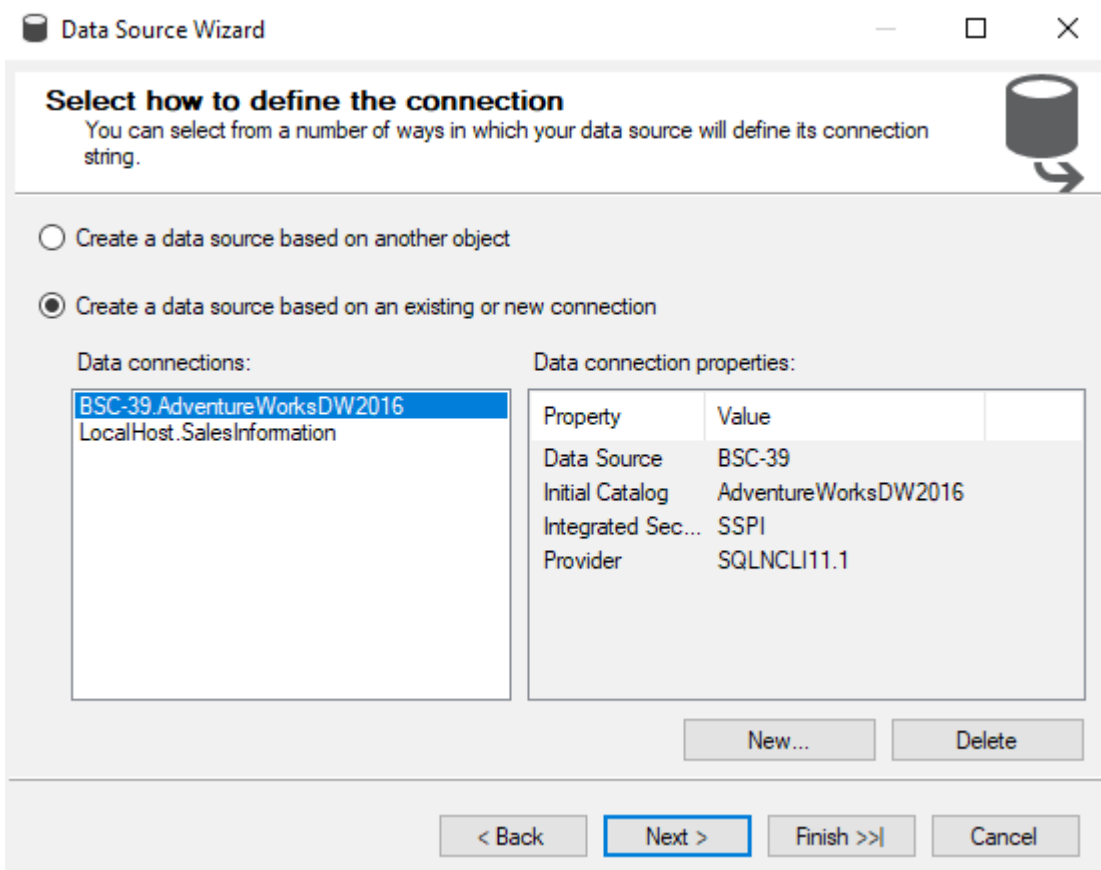
Practical 1

Aim: Perform Analysis on Adventure Work Dataset using Microsoft Excel and Visual Studio 2019.

Step 1: Open Application -> Visual Studio 2019 -> Create Project -> Analysis services multidimensional and data mining project -> Create



Step 2: Right Click on Data Sources -> New Data Source



Data Source Wizard

Impersonation Information

You can define what Windows credentials Analysis Services will use to connect to the data source.

☐ Use a specific Windows user name and password

User name:

Password:

☐ Use the service account

☐ Use the credentials of the current user

☒ Inherit

< Back **Next >** Finish >> Cancel

Step 3: Click on Next . Choose “Inherit” option.

Step 4: Right click on Data Source View -> New Data Source View

Data Source View Wizard

Select a Data Source

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

Relational data sources:

Adventure Works DW2016

Data source properties:

Property	Value
Data Source	BSC-39
Initial Catalog	AdventureWorksDW2016
Integrated Sec...	SSPI
Provider	SQLNCLI11.1

New Data Source... Advanced...


< Back **Next >** Finish >> Cancel

Step 5: Click on Next -> Use filter “Product”. Select Tables and Views. ->

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
------	------

Included objects:

Name	Type
DimProduct (dbo)	Table
DimProductSubcategory...	Table
FactAdditionalInternatio...	Table
DimProductCategory (dbo)	Table
FactProductInventory (d...	Table

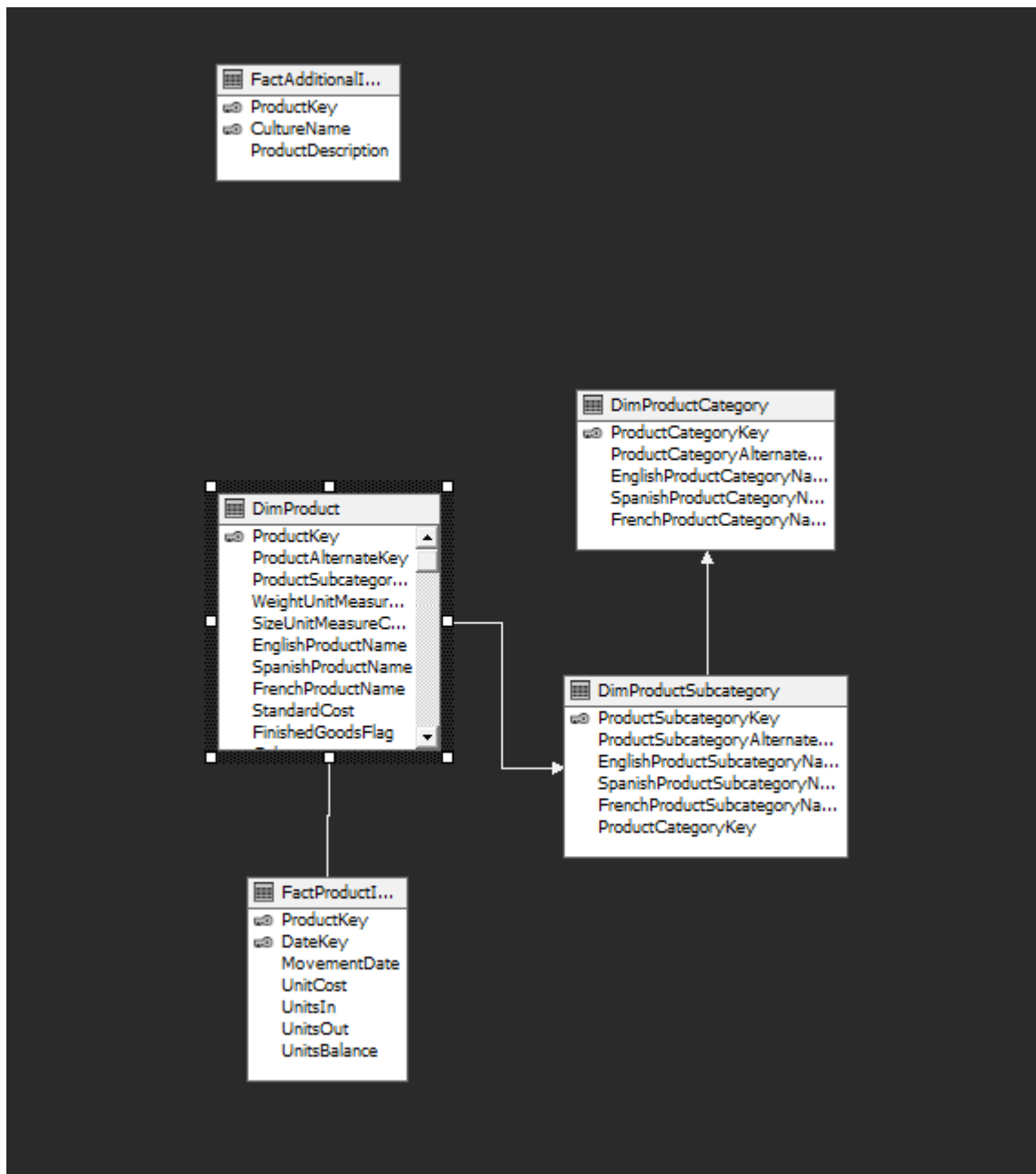
Filter:

☐ Show system objects

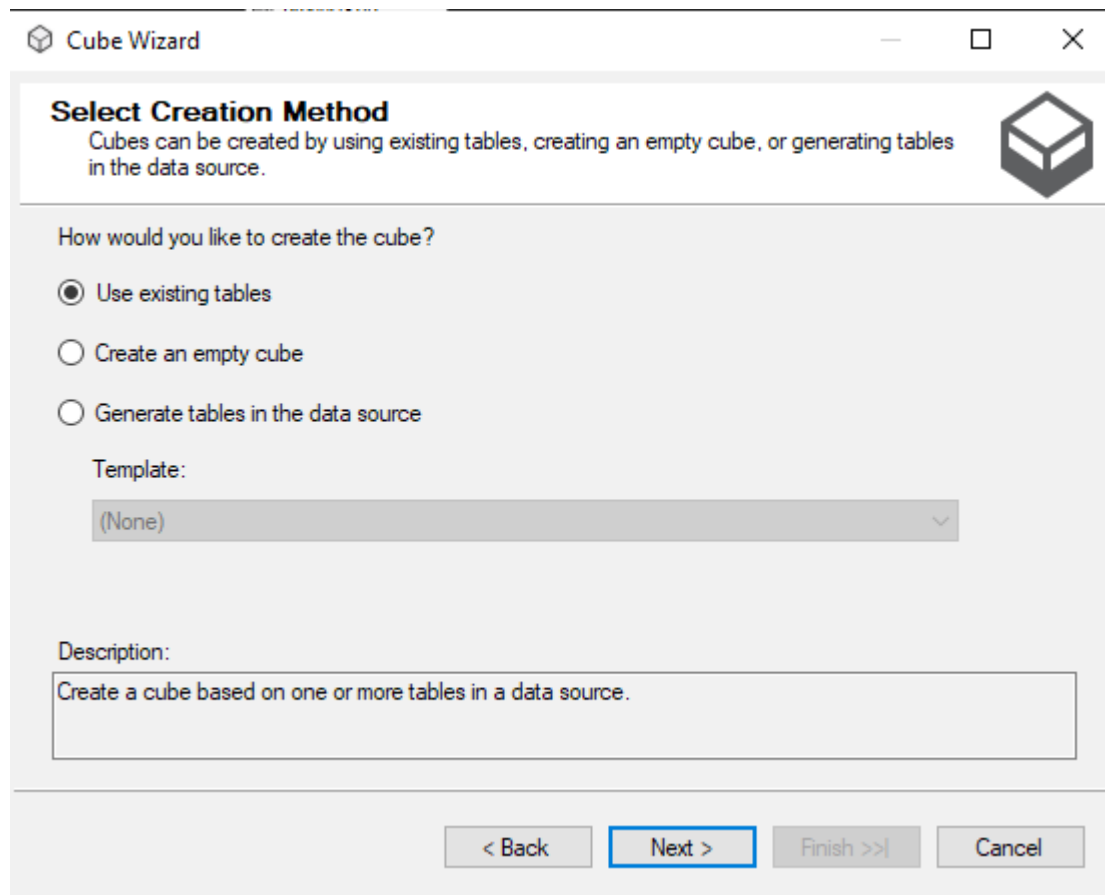
Add Related Tables

< Back **Next >** Finish >> Cancel

Step 6: Next & Finish Finally, we will get the Data Source View like



Step 7: Right click on Cubes -> New Cube.



The screenshot shows the 'Select Creation Method' dialog box in the 'Cube Wizard'. The title bar says 'Cube Wizard'. The main heading is 'Select Creation Method' with a subtext: 'Cubes can be created by using existing tables, creating an empty cube, or generating tables in the data source.' There is a cube icon on the right. The question is 'How would you like to create the cube?'. There are three radio buttons: 'Use existing tables' (selected), 'Create an empty cube', and 'Generate tables in the data source'. Below is a 'Template:' dropdown menu showing '(None)'. There is a 'Description:' text area with the text 'Create a cube based on one or more tables in a data source.' At the bottom are four buttons: '< Back', 'Next >' (highlighted with a blue border), 'Finish >>', and 'Cancel'.

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

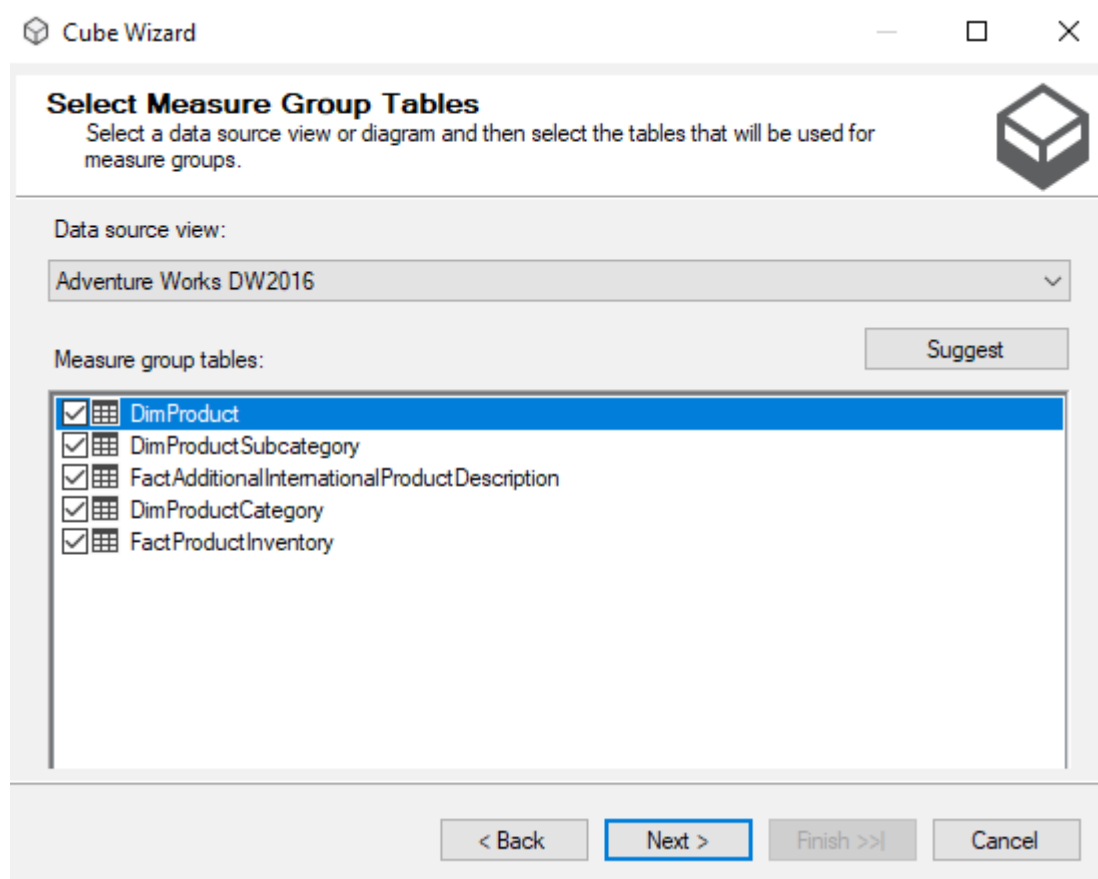
☐ Generate tables in the data source

Template:
(None)

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

< Back Next > Finish >> Cancel

Step 8: Click Next



The screenshot shows the 'Select Measure Group Tables' dialog box in the 'Cube Wizard'. The title bar says 'Cube Wizard'. The main heading is 'Select Measure Group Tables' with a subtext: 'Select a data source view or diagram and then select the tables that will be used for measure groups.' There is a cube icon on the right. The 'Data source view:' dropdown menu shows 'Adventure Works DW2016'. Below is a 'Measure group tables:' list with a 'Suggest' button. The list contains five items, all checked: 'DimProduct', 'DimProductSubcategory', 'FactAdditionalInternationalProductDescription', 'DimProductCategory', and 'FactProductInventory'. At the bottom are four buttons: '< Back', 'Next >' (highlighted with a blue border), 'Finish >>', and 'Cancel'.

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:
Adventure Works DW2016

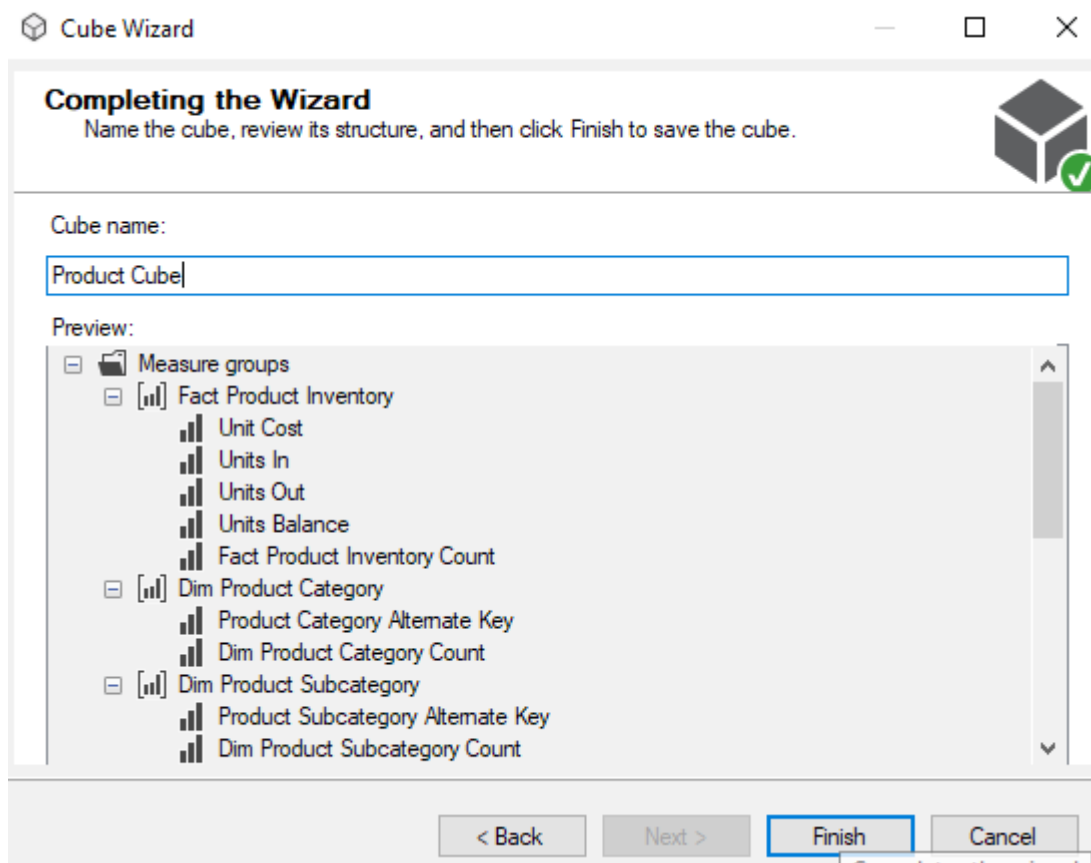
Measure group tables: Suggest

- ☒ DimProduct
- ☒ DimProductSubcategory
- ☒ FactAdditionalInternationalProductDescription
- ☒ DimProductCategory
- ☒ FactProductInventory

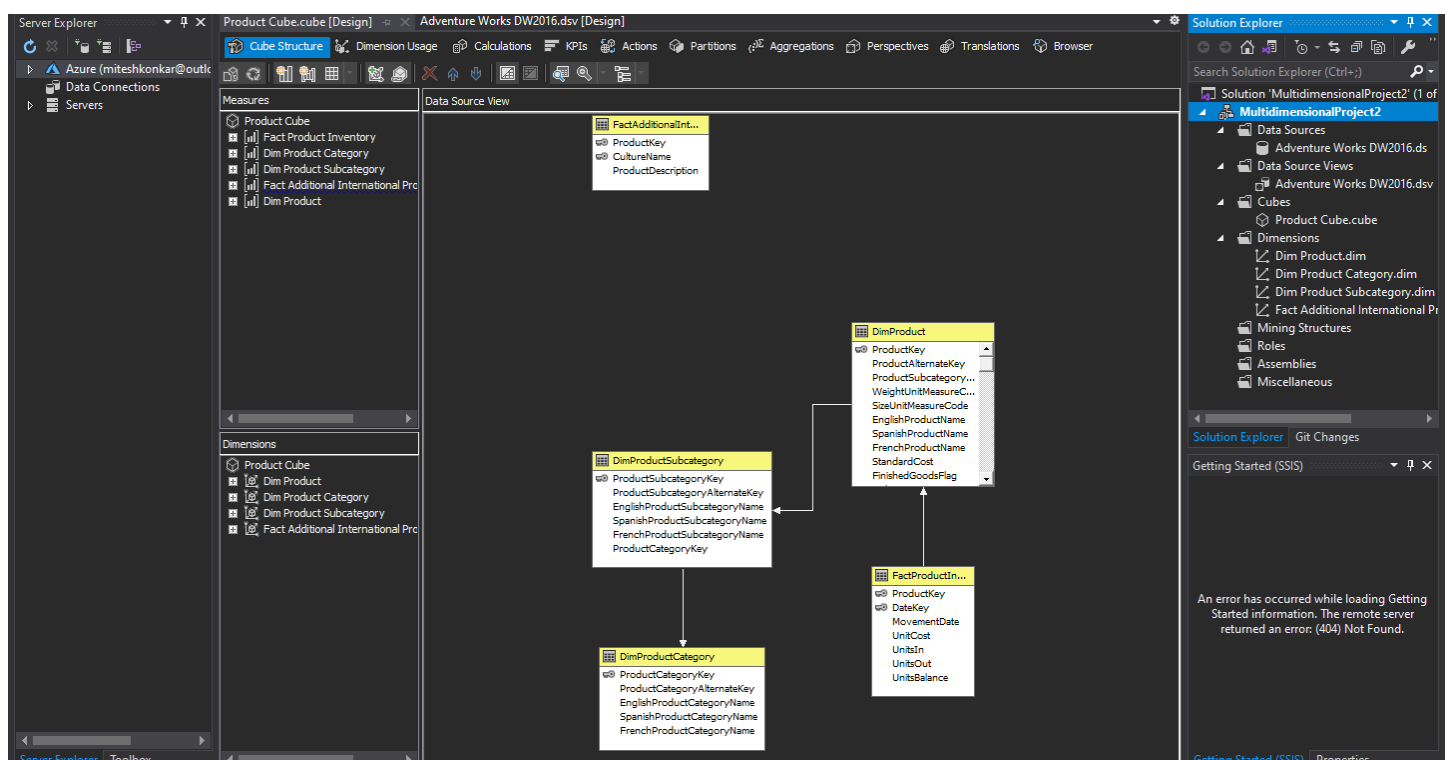
< Back Next > Finish >> Cancel

Step 9: Select Data Source View as “Sales Product” and Select all the tables.

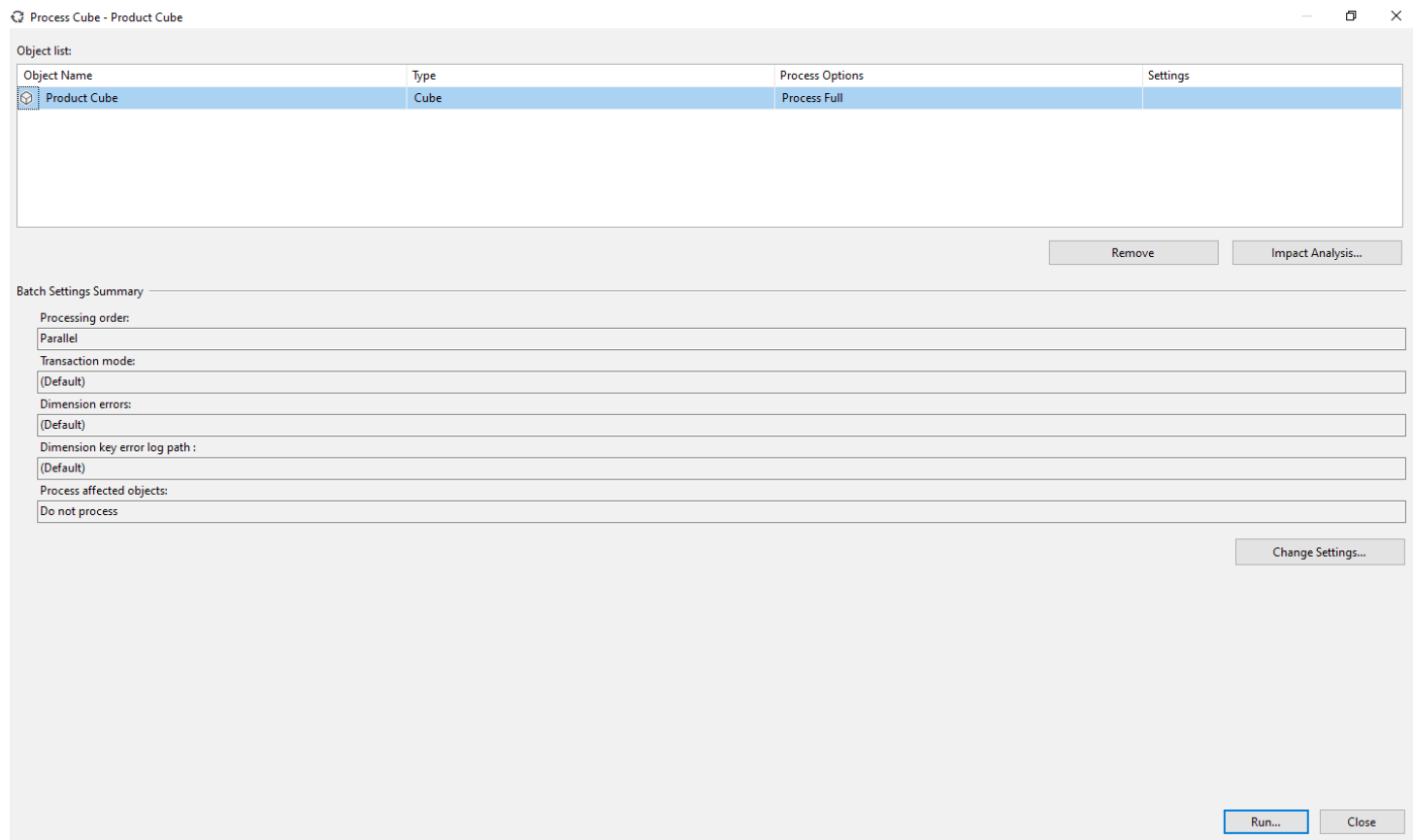
Step 10: Next > Next > Name the Cube > Finish



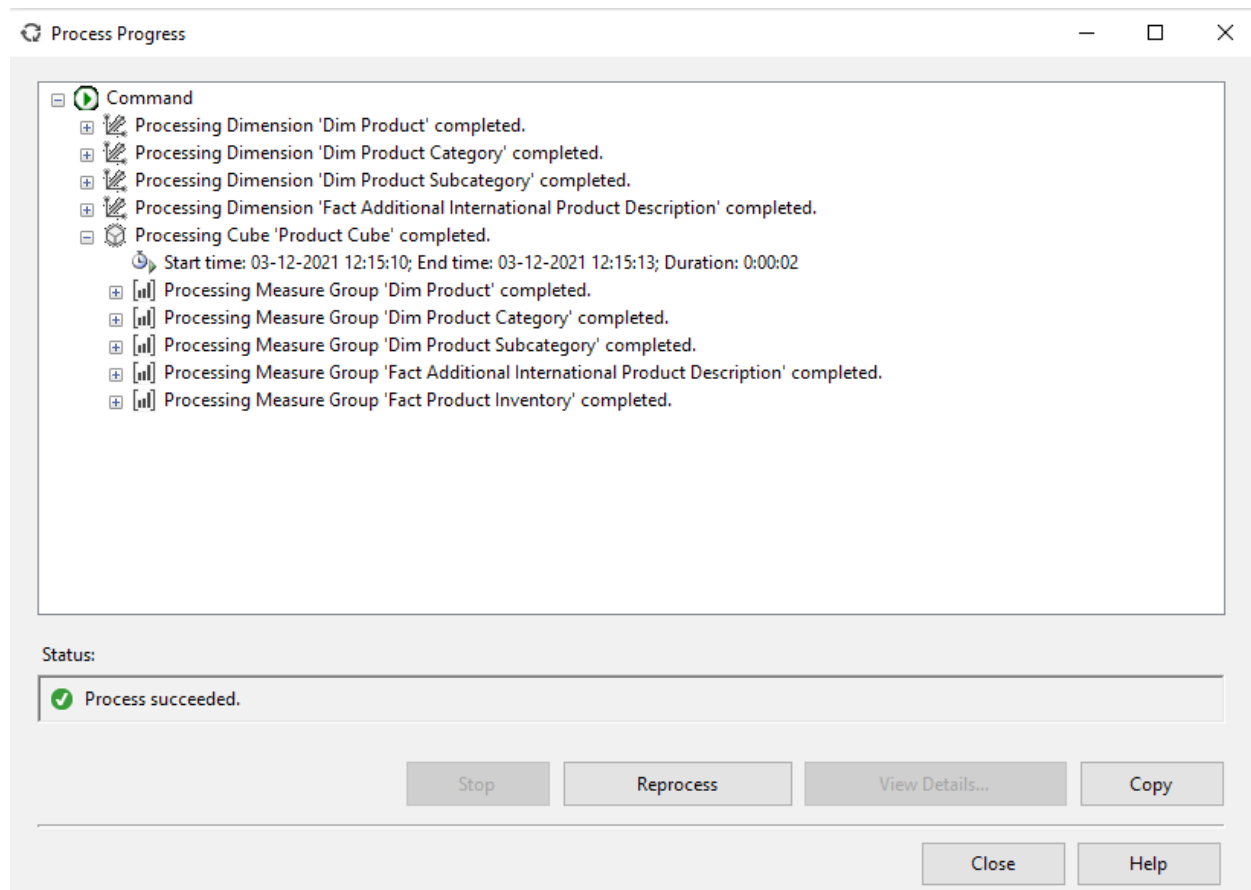
Step 11: Finally, we will get the Cube View as well Dimensions View like :



Step 12: Finally, Process cube by Right click on ProductCube -> Process .



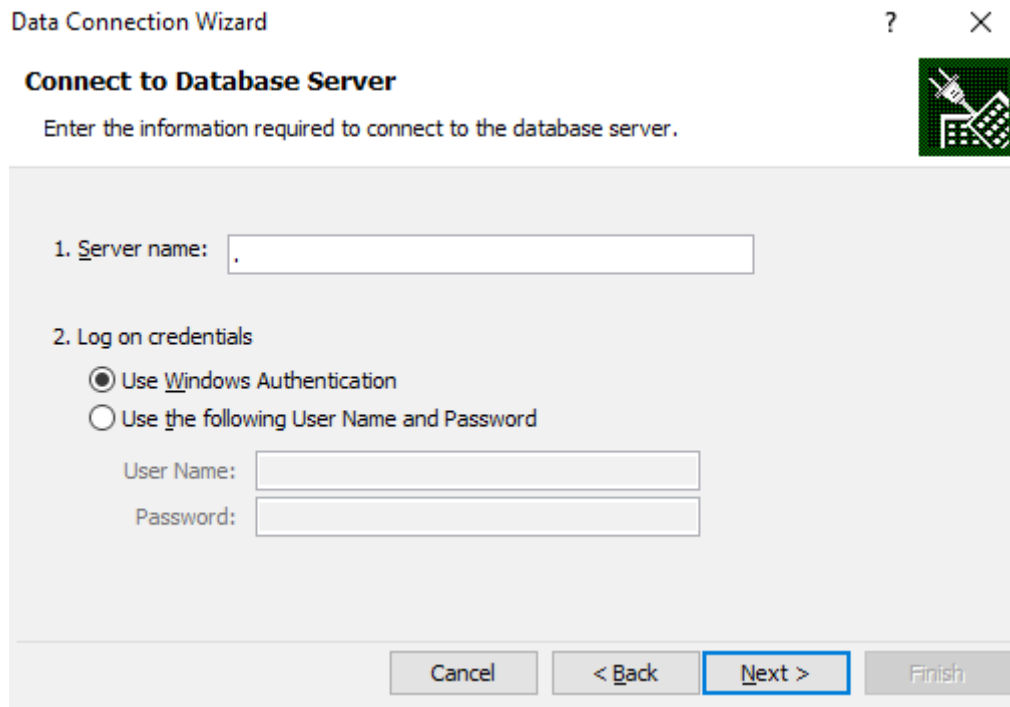
Step 13: Click on Run.



Step 14: Open MS-Excel. Click on Data Menu.

Step 15: Go to From Other Sources.

Step 16: From SQL Server -> Type Server name as “.”



The screenshot shows the 'Data Connection Wizard' window with the title 'Connect to Database Server'. It includes a help icon (?) and a close icon (X) in the top right corner. Below the title bar, there is a green icon of a plug and a database. The main text says 'Enter the information required to connect to the database server.' The wizard has two steps: 1. Server name: with a text box containing a period (.). 2. Log on credentials: with two radio buttons. The first radio button is selected and labeled 'Use Windows Authentication'. The second radio button is labeled 'Use the following User Name and Password' and has associated text boxes for 'User Name:' and 'Password:'. At the bottom, there are four buttons: 'Cancel', '< Back', 'Next >' (which is highlighted with a blue border), and 'Finish'.

Data Connection Wizard

Connect to Database Server

Enter the information required to connect to the database server.

1. Server name: .

2. Log on credentials

☒ Use Windows Authentication

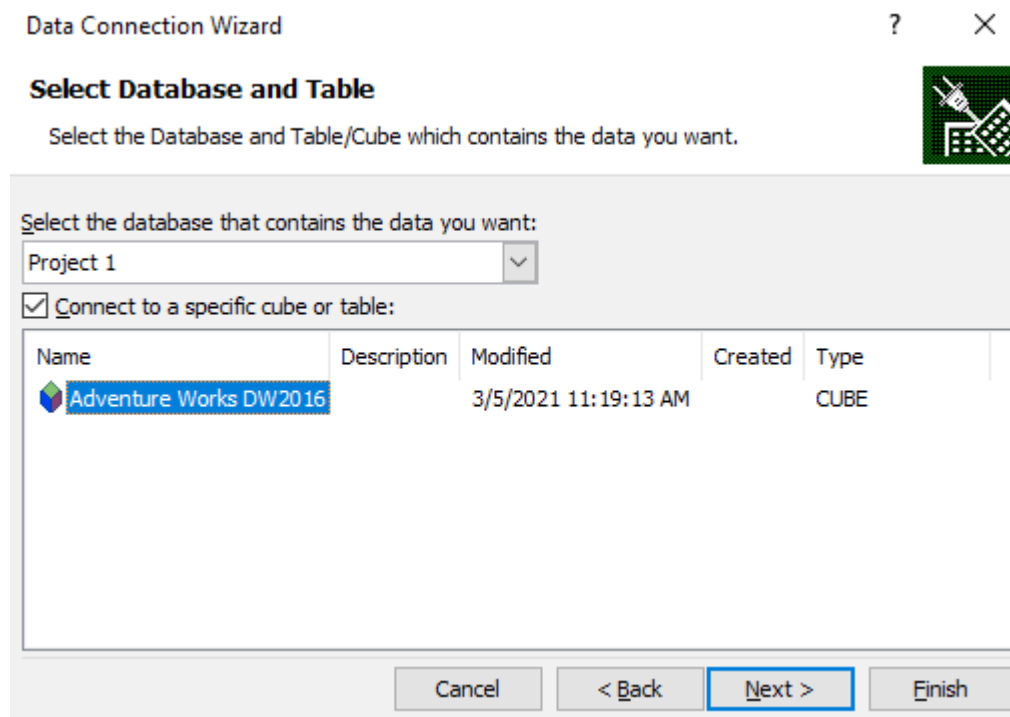
☐ Use the following User Name and Password

User Name:

Password:

Cancel < Back Next > Finish

Step 17: Click on Next. Choose SQL Database ->



The screenshot shows the 'Data Connection Wizard' window with the title 'Select Database and Table'. It includes a help icon (?) and a close icon (X) in the top right corner. Below the title bar, there is a green icon of a plug and a database. The main text says 'Select the Database and Table/Cube which contains the data you want.' The wizard has a dropdown menu for 'Project 1'. Below this, there is a checkbox labeled 'Connect to a specific cube or table:' which is checked. Below the checkbox is a table with columns: Name, Description, Modified, Created, and Type. The table contains one row with the name 'Adventure Works DW2016', a description, a modified date of '3/5/2021 11:19:13 AM', and a type of 'CUBE'. At the bottom, there are four buttons: 'Cancel', '< Back', 'Next >' (which is highlighted with a blue border), and 'Finish'.

Data Connection Wizard

Select Database and Table

Select the Database and Table/Cube which contains the data you want.

Select the database that contains the data you want:

Project 1

☒ Connect to a specific cube or table:

Name	Description	Modified	Created	Type
Adventure Works DW2016		3/5/2021 11:19:13 AM		CUBE

Cancel < Back Next > Finish



Save Data Connection File and Finish

Enter a name and description for your new Data Connection file, and press Finish to save.

File Name:

. Project 1 Adventure Works DW2016.odc

Browse...

☐ Save password in file

Description:

(To help others understand what your data connection points to)

Friendly Name:

. Project 1 Adventure Works DW2016

Search Keywords:

☐ Always attempt to use this file to refresh data

Excel Services: Authentication Settings...

Cancel

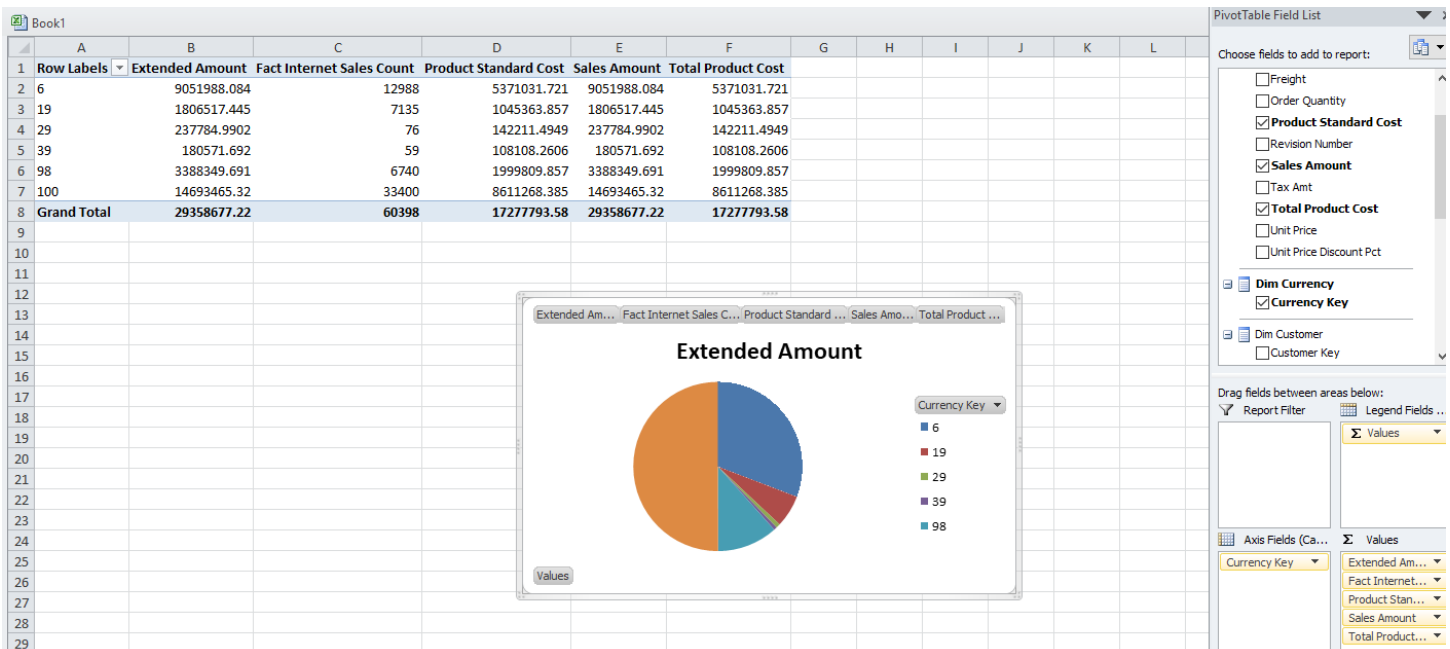
< Back

Next >

Finish

Step 18: Click on Finish

Step 19: Select Result Area. Go to Insert Menu. Select Pie Chart option.



Step 20: Select Result Area. Go to Insert Menu. Select Column option.

