PROJECT LUNA

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ADVENTUREWORKS SALES REPORTS AND ANALYSIS

OVERVIEW

1. Project background and description

Project Luna aims to generate sales reports to deliver factual sales insights to end-users.

2. Project scope

The AdventureWorks database will be the data source, specifically from the following tables:

- Sales Order Header
- Sales Order Detail
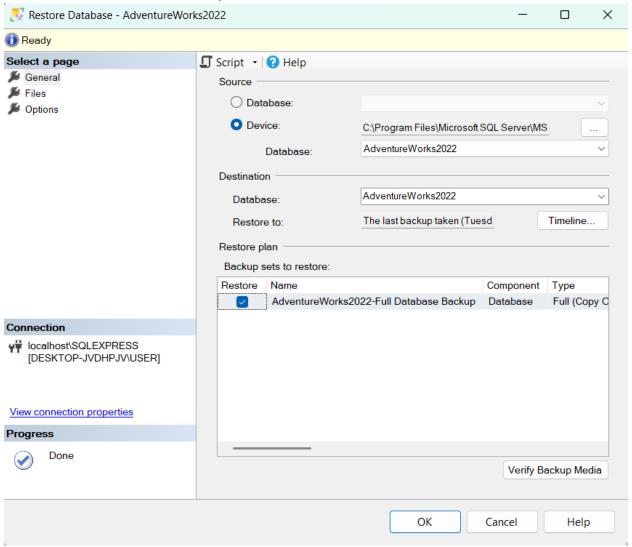- Sales Territory
- Product

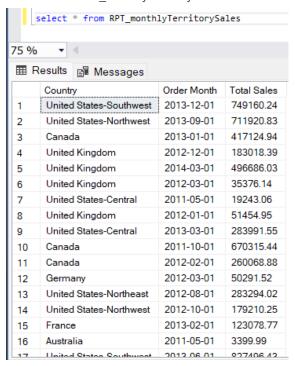See: AdventureWorks Database

3. Deliverables

The project will deliver a fully functional database in Microsoft SQL Server Management Studio (SSMS), including Stored Procedures that will generate tables which contain the sales reports. An Excel Worksheet will also be created which will show the same reports as what's in the database.
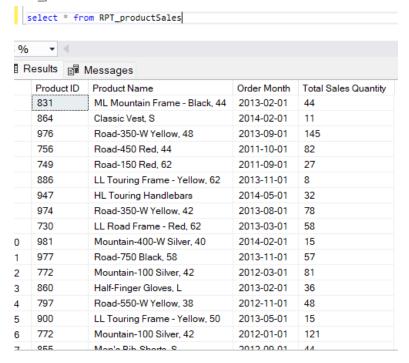
DATABASE REPORTS

AdventureWorks database .bak (backup) file was downloaded from the Microsoft website. The file is then restored in SSMS. This will load tables and other objects to the local SQL server.

BLD_RPT_monthlyTerritorySales stored procedure has been created to generate a monthly territory sales report table named RPT_monthlyTerritorySales.

```sql
select * from RPT_monthlyTerritorySales
```

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▦ Results ▤ Messages

	Country	Order Month	Total Sales
1	United States-Southwest	2013-12-01	749160.24
2	United States-Northwest	2013-09-01	711920.83
3	Canada	2013-01-01	417124.94
4	United Kingdom	2012-12-01	183018.39
5	United Kingdom	2014-03-01	496686.03
6	United Kingdom	2012-03-01	35376.14
7	United States-Central	2011-05-01	19243.06
8	United Kingdom	2012-01-01	51454.95
9	United States-Central	2013-03-01	283991.55
10	Canada	2011-10-01	670315.44
11	Canada	2012-02-01	260068.88
12	Germany	2012-03-01	50291.52
13	United States-Northeast	2012-08-01	283294.02
14	United States-Northwest	2012-10-01	179210.25
15	France	2013-02-01	123078.77
16	Australia	2011-05-01	3399.99
17	United States-Southwest	2013-06-01	827496.43

BLD_RPT_productSales stored procedure has been created to generate a monthly product sales report table named RPT_productSales.

```sql
select * from RPT_productSales
```

% ▾ ◂

▤ Results ▤ Messages

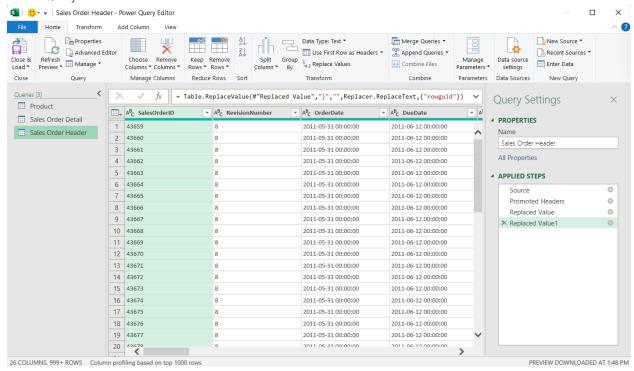|	Product ID	Product Name	Order Month	Total Sales Quantity
	831	ML Mountain Frame - Black, 44	2013-02-01	44
	864	Classic Vest, S	2014-02-01	11
	976	Road-350-W Yellow, 48	2013-09-01	145
	756	Road-450 Red, 44	2011-10-01	82
	749	Road-150 Red, 62	2011-09-01	27
	886	LL Touring Frame - Yellow, 62	2013-11-01	8
	947	HL Touring Handlebars	2014-05-01	32
	974	Road-350-W Yellow, 42	2013-08-01	78
	730	LL Road Frame - Red, 62	2013-03-01	58
0	981	Mountain-400-W Silver, 40	2014-02-01	15
1	977	Road-750 Black, 58	2013-11-01	57
2	772	Mountain-100 Silver, 42	2012-03-01	81
3	860	Half-Finger Gloves, L	2013-02-01	36
4	797	Road-550-W Yellow, 38	2012-11-01	48
5	900	LL Touring Frame - Yellow, 50	2013-05-01	15
6	772	Mountain-100 Silver, 42	2012-01-01	121
7	855	Men's Bib Shorts, S	2012-09-01	44

Stored procedure scripts can be viewed in Project Luna's github repository—
https://github.com/marielle92/luna

EXCEL WORKSHEET REPORTS

Sales Order Header, Sales Order Detail, Sales Territory, and Product tables were exported as CSV files from SSMS. These four files are then imported into an Excel file.
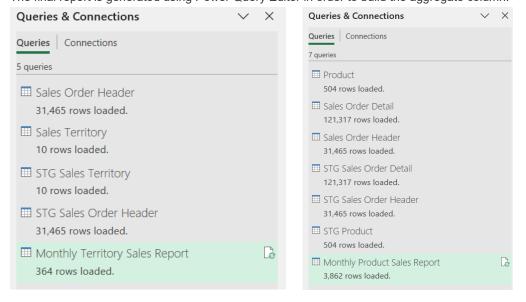
It is good practice to import the data exactly as it was from their source. However, Excel automatically formats each column according to its detected data types. To revert the data back to original, the formats are fixed using Excel's Power Query Editor.

Staging tables have been created to remove unused columns, rectify the data types, and transform records into the proper format.

Temporary tables have been created to combine data across the staging tables using XLOOKUP.

The final report is generated using Power Query Editor in order to build the aggregate column.

The Excel files for both report can be viewed in Project Luna's github repository—
https://github.com/marielle92/luna