

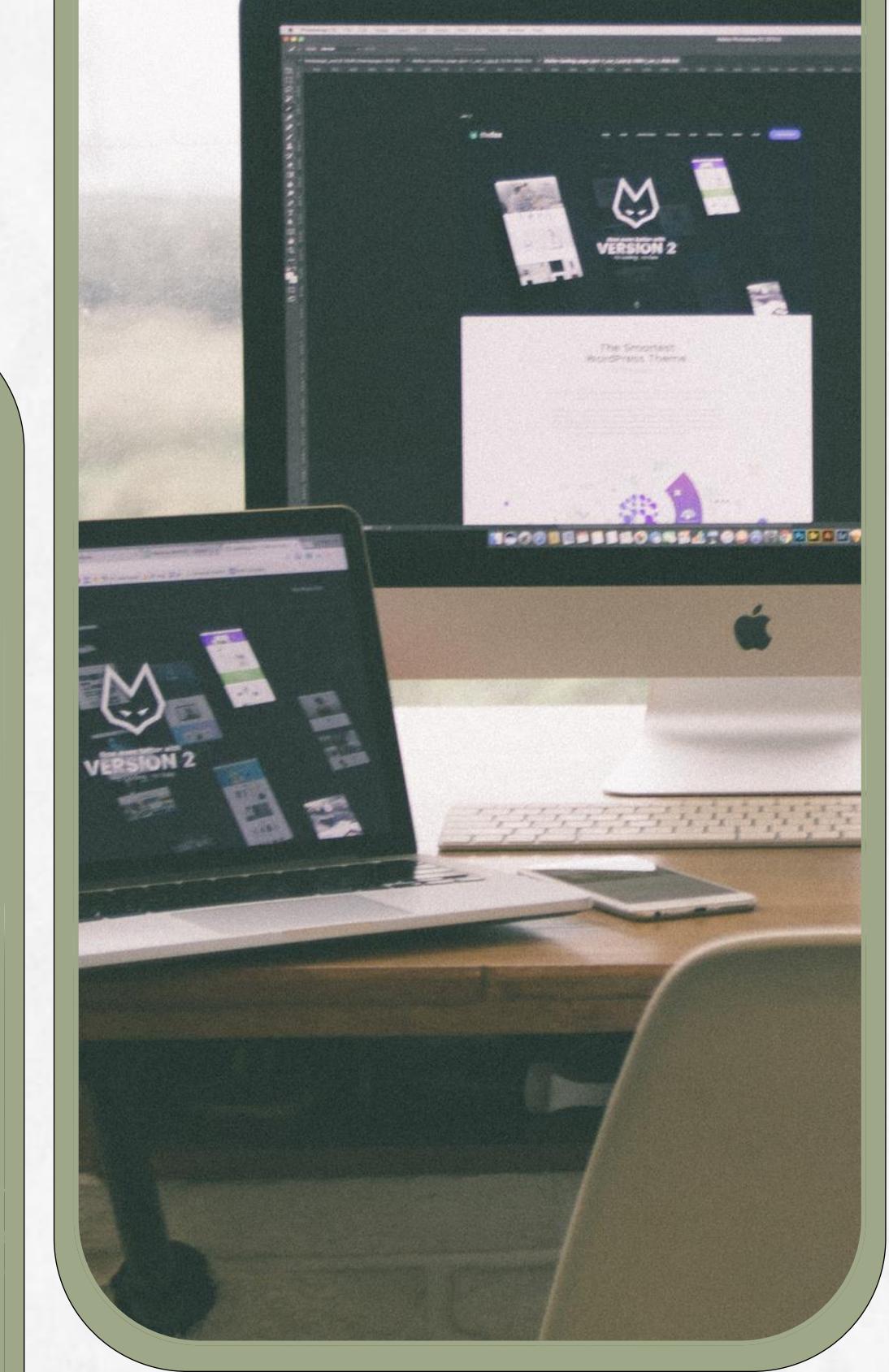
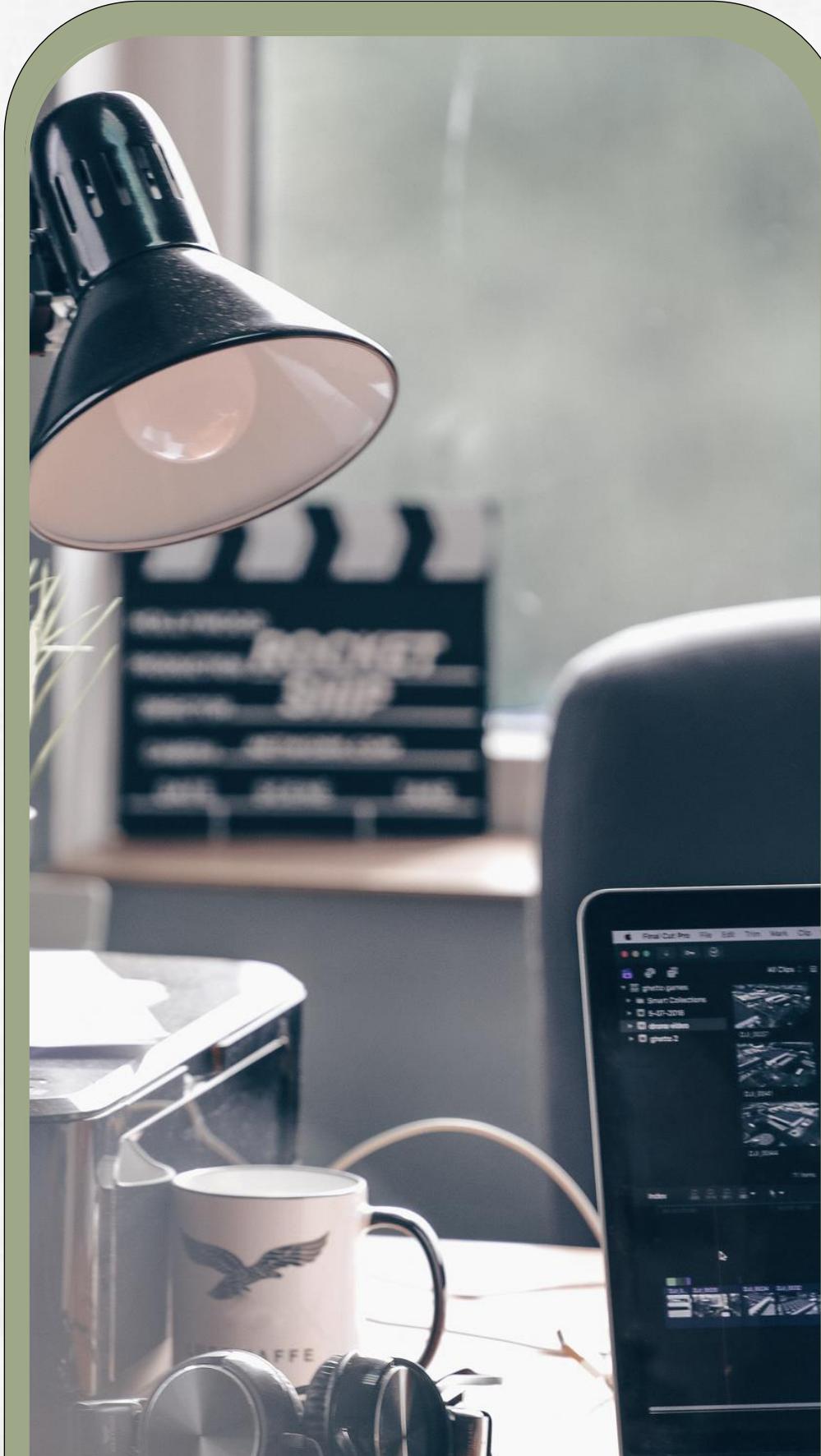
TASK DOCUMENTATION

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STEPS INDEX

- Excel
- SQL
- SSIS
- Power Query
- Power bi
- Presentation



EXCEL

- Reading the data
- Cleaning Data
- Creating some calculations and lookups

Top 20 Products per Sold		Top 10 Reps per Count of Order number		Top 10 Brand per Value		Worst 10 Brand per Value	
Product ID	Sold Amount	Rep Name	Orders	Brand	Sales	Brand	Sales
462	1193	Essam	1178	L.O.L Surprise	\$ 162,750	Craftabelle	\$ 225.00
4028	421	Bassem	1075	Pokémon	\$ 160,569	POP CORN	\$ 182.50
4078	404	Ahmed	909	X-Shot	\$ 129,223	BOBOO	\$ 122.50
4090	327	Shady	646	Rainbocorns	\$ 109,388	CUP CAKE	\$ 80.00
4079	325	Omar	596	Rainbow High	\$ 78,239	CRACKERS	\$ 72.50
465	286	Alaa	534	Nilco	\$ 64,103	SNACK & GO	\$ 67.50
470	227	Nora	473	Match Attax	\$ 55,665	Slice CAKE	\$ 40.00
4092	188	Asya	409	Our Generation	\$ 53,507	Sticks	\$ 20.00
471	183	Ola	369	Goo Jit Zu	\$ 47,035	So Glow	\$ -
4091	176	Yara	337	Style 4 Ever	\$ 42,918	Magic Mixies	\$ -
475	138	Grand Total	6526	Grand Total	\$ 903,395	Grand Total	\$ 810.00
11	132						
386	127						
476	115						
4088	107						
474	106						
4202	100						
392	97						
4087	93						
4089	91						
Grand Total	4836						

Dashboard Overview																		
Key Metrics		Regional Performance								Operational Data								
Sales & Profitability		North America				Europe				Asia-Pacific			Logistics		Inventory		Production	
Period	Region	Sales	Profit	Margin %	Units Sold	Sales	Profit	Margin %	Units Sold	Sales	Profit	Margin %	Stock Level	Order Volume	Lead Time (days)	Days to Ship	Production Rate	
Q1 2024	North America	\$1,250,000	\$300,000	24%	10,000	\$900,000	\$225,000	25%	8,000	\$650,000	\$162,500	23%	5,000	120	5	300		
Q1 2024	Europe	\$800,000	\$180,000	22%	7,000	\$600,000	\$150,000	23%	6,000	\$450,000	\$112,500	21%	4,000	100	4	250		
Q1 2024	APAC	\$750,000	\$150,000	20%	5,000	\$500,000	\$125,000	20%	4,000	\$350,000	\$87,500	18%	3,000	90	3	200		
Q2 2024	North America	\$1,300,000	\$320,000	25%	10,500	\$920,000	\$240,000	26%	8,500	\$660,000	\$165,000	24%	5,500	125	5	320		
Q2 2024	Europe	\$820,000	\$185,000	23%	7,200	\$620,000	\$155,000	23%	6,200	\$460,000	\$115,000	22%	4,200	105	4	260		
Q2 2024	APAC	\$770,000	\$155,000	21%	5,200	\$520,000	\$130,000	21%	4,200	\$360,000	\$90,000	19%	3,200	95	3	210		
Q3 2024	North America	\$1,350,000	\$340,000	26%	11,000	\$950,000	\$250,000	27%	9,000	\$690,000	\$170,000	25%	6,000	130	5	340		
Q3 2024	Europe	\$840,000	\$190,000	24%	7,400	\$640,000	\$160,000	24%	6,400	\$470,000	\$118,000	23%	4,400	110	4	280		
Q3 2024	APAC	\$790,000	\$160,000	22%	5,400	\$540,000	\$140,000	22%	4,400	\$370,000	\$95,000	20%	3,400	100	3	230		
Q4 2024	North America	\$1,400,000	\$360,000	27%	11,500	\$980,000	\$260,000	28%	9,500	\$720,000	\$175,000	26%	6,500	135	5	360		
Q4 2024	Europe	\$860,000	\$195,000	25%	7,600	\$660,000	\$170,000	25%	6,600	\$480,000	\$120,000	24%	4,600	115	4	290		
Q4 2024	APAC	\$810,000	\$165,000	23%	5,600	\$560,000	\$150,000	23%	4,600	\$380,000	\$100,000	21%	3,600	105	3	240		
Total YTD	North America	\$4,000,000	\$1,000,000	24%	36,000	\$2,700,000	\$750,000	25%	28,000	\$1,800,000	\$450,000	23%	15,000	120	5	1,000		
Total YTD	Europe	\$2,400,000	\$600,000	22%	21,000	\$1,600,000	\$400,000	23%	16,000	\$1,000,000	\$250,000	21%	8,000	100	4	600		
Total YTD	APAC	\$2,200,000	\$500,000	20%	14,000	\$1,100,000	\$300,000	20%	10,000	\$700,000	\$175,000	18%	5,000	90	3	400		
Avg. Margin %	North America	24%	24%	24%	24%	Europe	23%	23%	23%	23%	APAC	21%	21%	21%	21%	21%		
YTD Growth %	North America	+5%	+5%	+5%	+5%	Europe	+4%	+4%	+4%	+4%	APAC	+3%	+3%	+3%	+3%	+3%		
Future Outlook	North America	Stable	Stable	Stable	Stable	Europe	Stable	Stable	Stable	Stable	APAC	Growing	Growing	Growing	Growing	Growing		
Overall Status	North America	Green	Green	Green	Green	Europe	Yellow	Yellow	Yellow	Yellow	APAC	Yellow	Yellow	Yellow	Yellow	Yellow		

SQL



- Creating a Data Warehouse
- Hosting the star schema and creating the modeling of DWH

Object Explorer

SQLQuery4.sql - (I...E\Ammar Yaser (72)) X SQLQuery3.sql - (I...E\Ammar Yaser (67)) SQLQuery2.sql - (I...E\Ammar Yaser (69))

Object Explorer

Bingo DWH

- Database Diagrams
- dbo.DWH Schema

Tables

- System Tables
- FileTables
- External Tables
- Graph Tables
- dbo.Dim_Product
- dbo.Dim_Reps
- dbo.Dm_Stores
- dbo.Fact_Sales

Views

External Resources

Synonyms

Programmability

Service Broker

Storage

Security

Company assignment

Company_SD

DB1

ITI

iutt

LC

MyDWH

mytest

Olist

Olist_DWH

***** Script for SelectTopNRows command from SSMS *****

```
SELECT TOP (1000) [ProductID]
    ,[ProductCode]
    ,[Description]
    ,[Category]
    ,[Subcategory]
    ,[Brand]
FROM [Bingo DWH].[dbo].[Dim_Product]
```

90 %

Results Messages

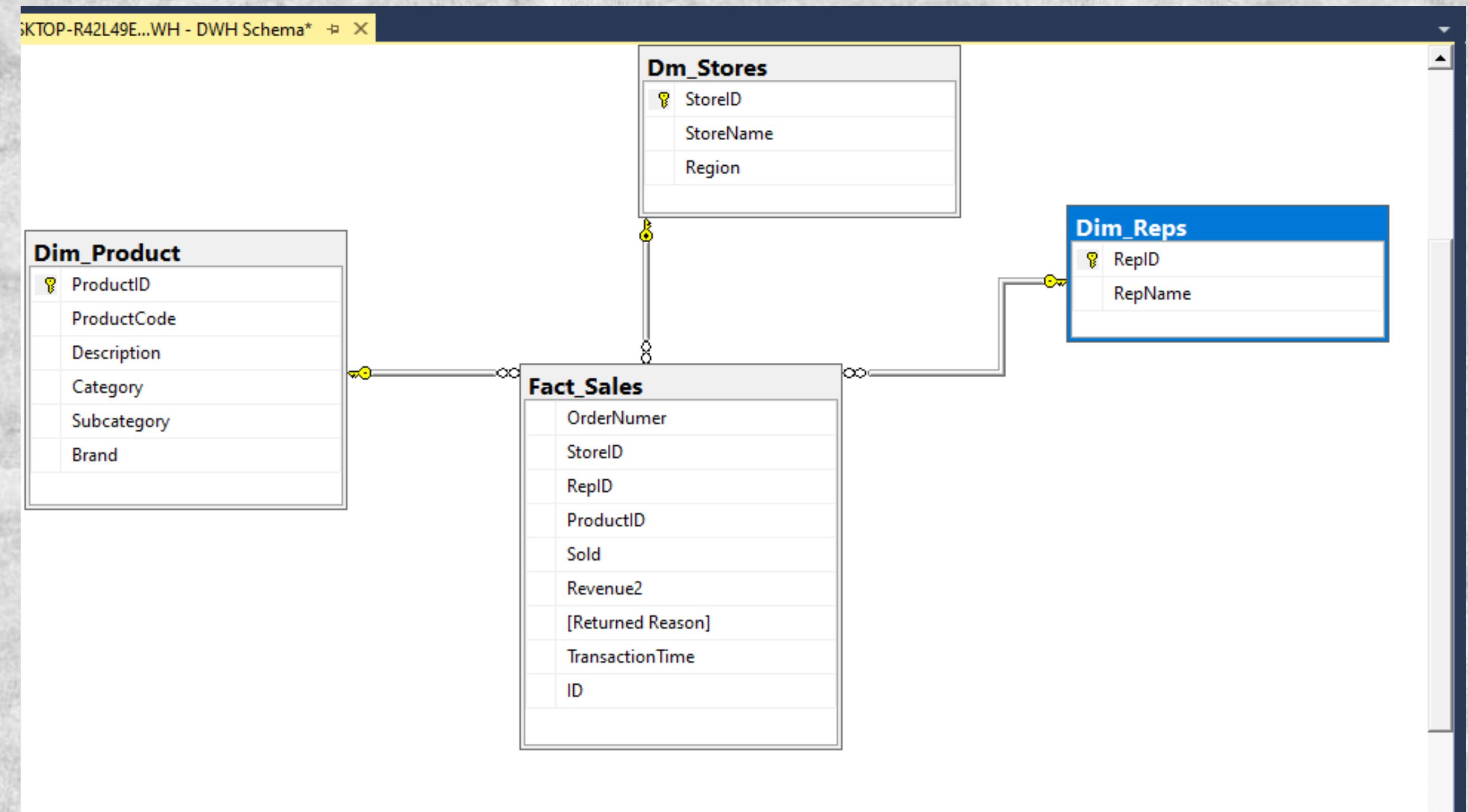
	ProductID	ProductCode	Description	Category	Subcategory	Brand
1	2	ZUR-9616	COCO Surprise Squishies S1.6pcs PDQ	Plush & Soft Toys	Non Battery	COCO SURPRISE
2	3	ZUR-9601-H	COCO Surprise Cones Classics-Silvy PDQ (12 PCS)	Plush & Soft Toys	Non Battery	COCO SURPRISE
3	4	ZUR-9601-G	COCO Surprise Cones Classics-Fizzy PDQ (12 PCS)	Plush & Soft Toys	Non Battery	COCO SURPRISE
4	5	ZUR-9601-E	COCO Surprise Cones Classics-Mitty PDQ (12 PCS)	Plush & Soft Toys	Non Battery	COCO SURPRISE
5	6	ZUR-9601-D	COCO Surprise Cones Classics-Poncho PDQ (12 PCS)	Plush & Soft Toys	Non Battery	COCO SURPRISE
6	7	ZUR-9601-B	COCO Surprise Cones Classics-Bon-Bon PDQ (12 PCS)	Plush & Soft Toys	Non Battery	COCO SURPRISE
7	8	ZUR-9601-A	COCO Surprise Cones Classics-Spritz PDQ (12 PCS)	Plush & Soft Toys	Non Battery	COCO SURPRISE
8	9	ZUR-9262	Rainbocom Big Surprise Unicorn Rescue Big Size	Surprise	Egg	Rainbocom
9	10	ZUR-9261	Zuru Rainbocomspuppycom Rescue Magic Peel Reve...	Surprise	Egg	Rainbocom
10	11	ZUR-9259	Zuru Rainbocom KitTYcom Magic Glowing 10 Surpris...	Surprise	Egg	Rainbocom
11	12	ZUR-9258	Zuru Rainbocom Eggzania Surprise Mania Over 20 S...	Surprise	Egg	Rainbocom

Query executed successfully.

(local) (15.0 RTM) DESKTOP-R42L49E\Ammar ...

Star Schema

It enhances analytical reporting by providing faster query response times and easier data navigation due to its simplified design.



SSIS



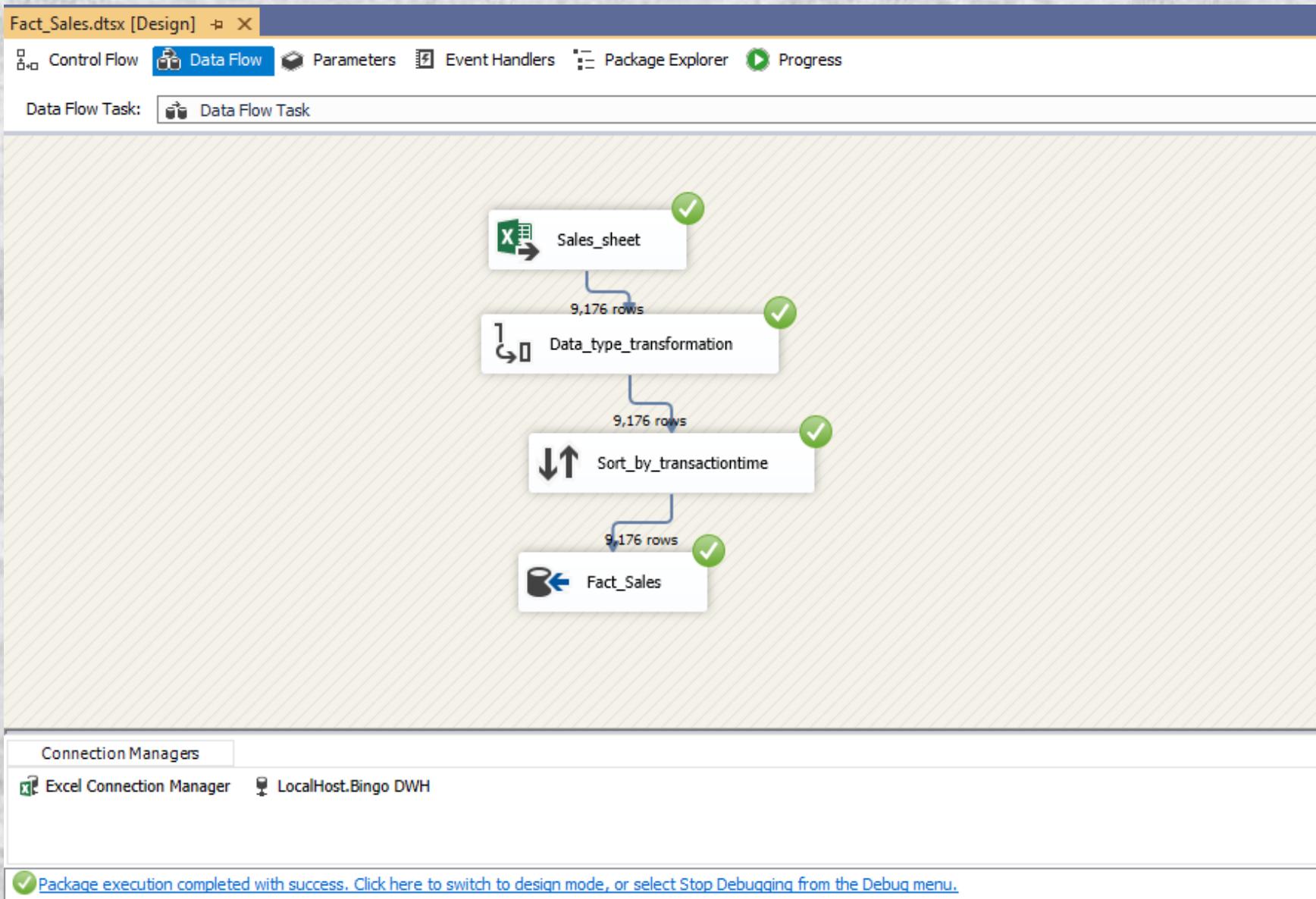
Creating data types transformation and sorting the data



Defining the fact tables and dimension tables

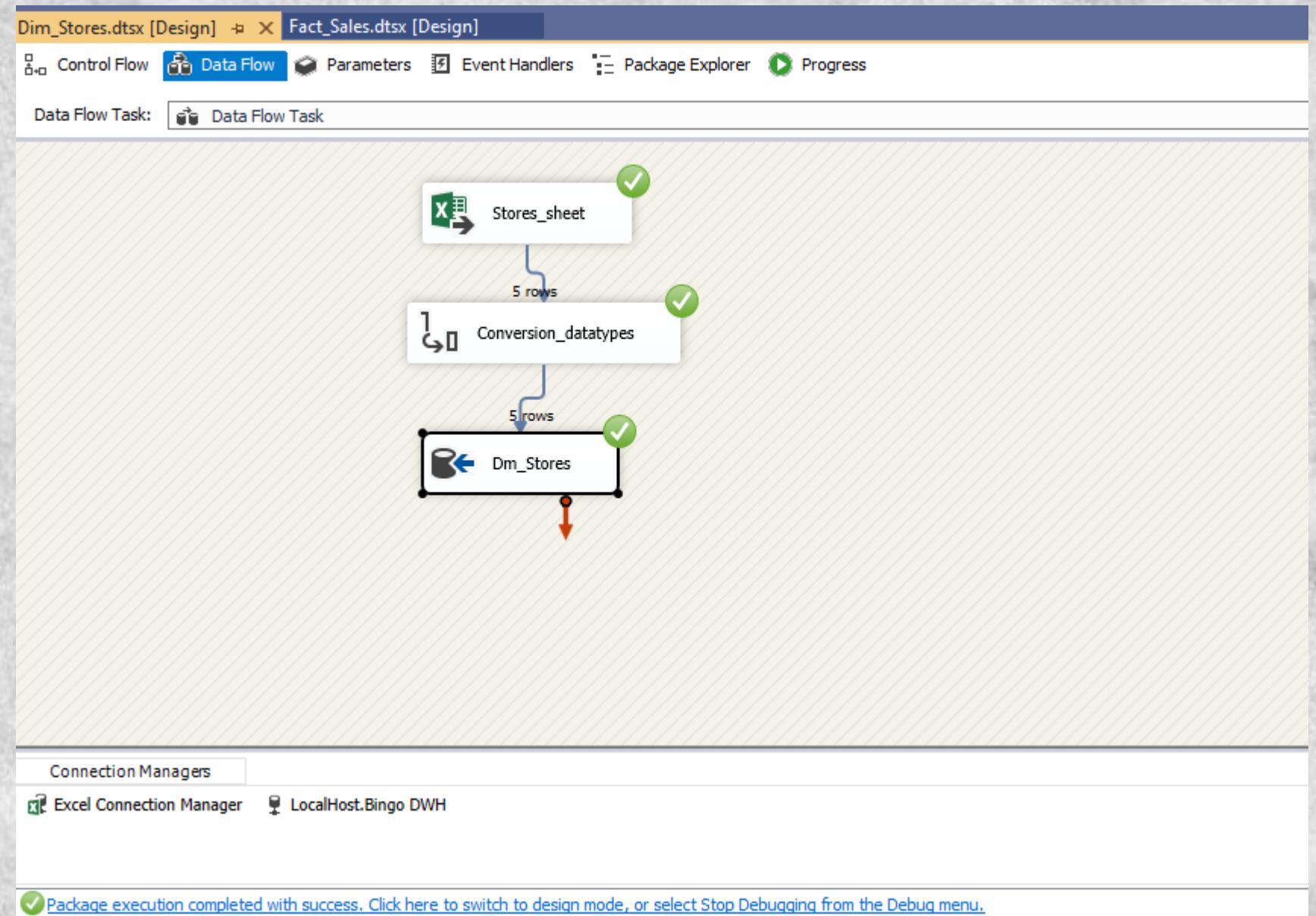


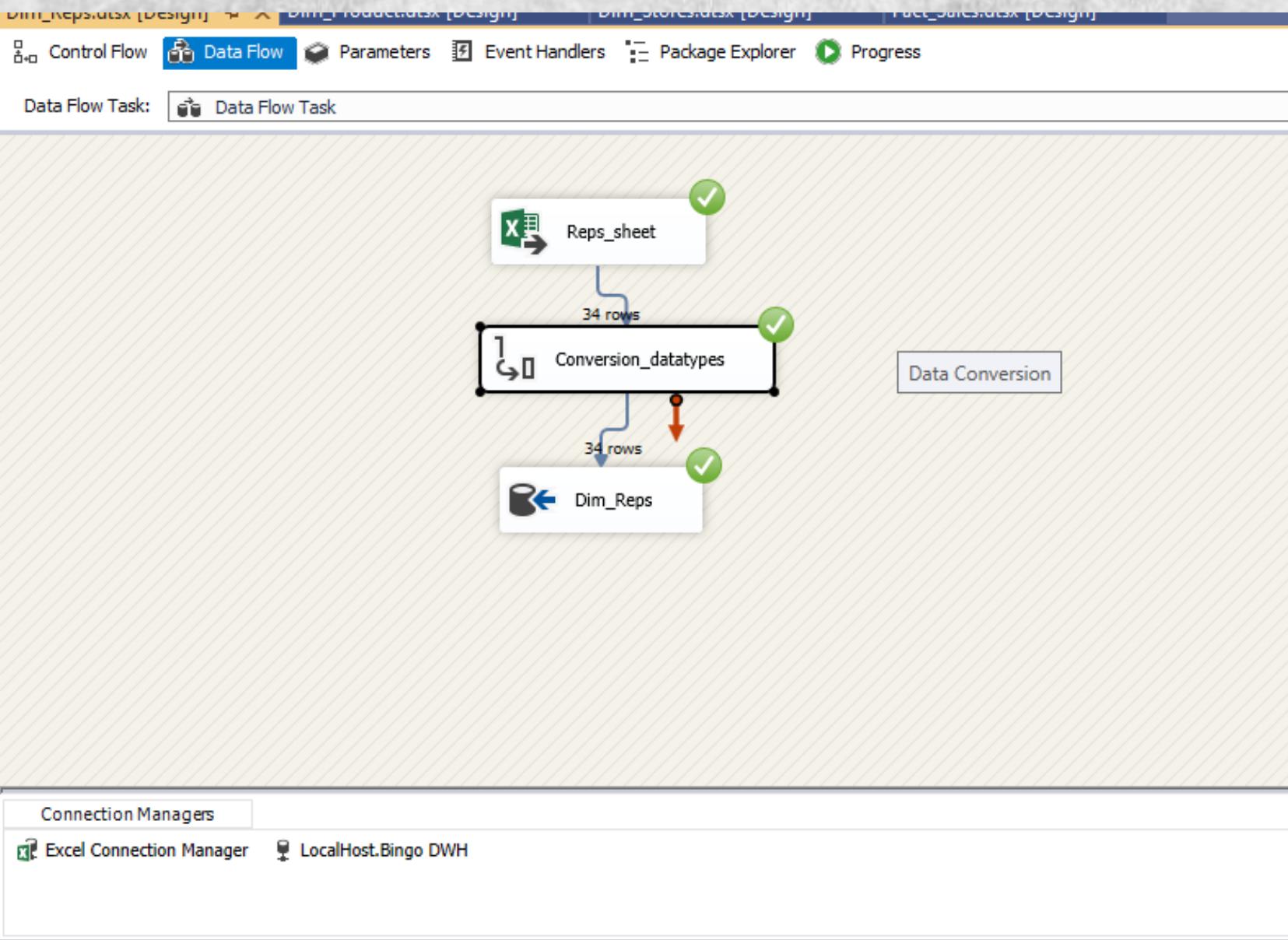
Creating ETL pipelines to populate the data into the DWH



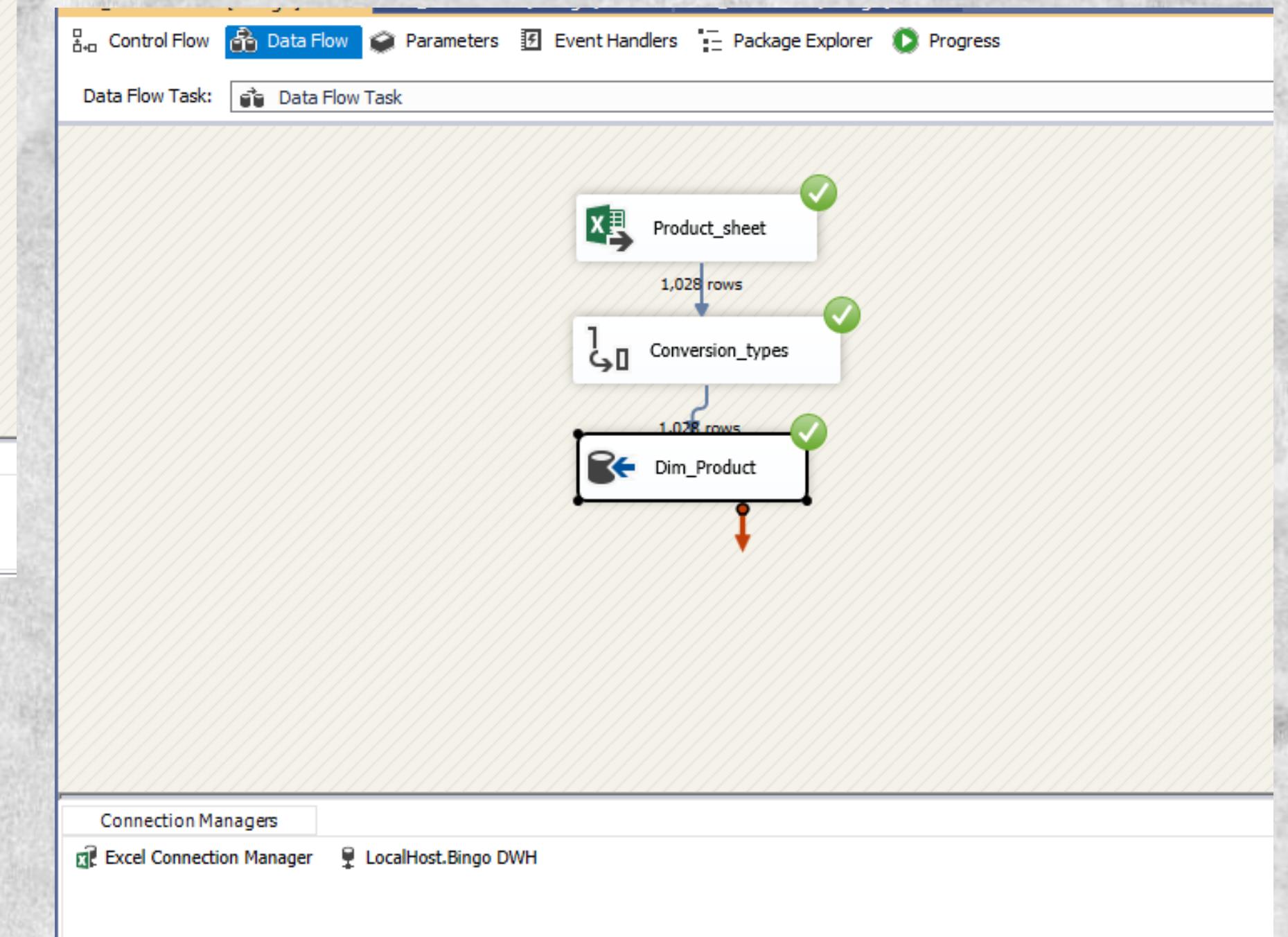
Fact Sales SSIS Package

Store Dimension SSIS Package





Product Dimension SSIS Package



Power BI

- Explaining our process of thinking and working during the task
- Providing a brief presentation and dashboard



Power Query Processes

The screenshot shows the Microsoft Power Query Editor interface. The top menu bar includes File, Home, Transform, Add Column, View, Tools, and Help. The ribbon below the menu bar contains various icons for managing queries, such as Close & Apply, New Source, Recent Sources, Enter Data, Data source settings, Manage Parameters, Refresh Preview, Properties Advanced Editor, Choose Columns, Remove Columns, Keep Rows, Remove Rows, Sort, Split Column, Group By, Replace Values, Merge Queries, Append Queries, Combine Files, and Combine. The main workspace displays a preview of a query named "Fact_Sales" with four columns: TransactionTime, ID, Dim_Product, and Dim_Reps. The preview shows 24 rows of data. To the right of the preview is the "Query Settings" pane, which includes sections for PROPERTIES (Name: Fact_Sales) and APPLIED STEPS. The APPLIED STEPS section lists numerous steps taken during the process, including source, navigation, changed type, added conditional columns, reordered columns, removed columns, inserted week/month/year/month name, and inserted day/month.

File Home Transform Add Column View Tools Help

Close & Apply New Source Recent Sources Enter Data Data source settings Manage Parameters Refresh Preview Properties Advanced Editor Choose Columns Remove Columns Keep Rows Remove Rows Sort Split Column Group By Replace Values Merge Queries Append Queries Combine Files Combine Text Analytics Vision Combine Files Azure Machine Learning AI Insights

Queries [4]

= Table.AddColumn(#"Inserted Day", "Month", each Date.Month([TransactionTime]), Int64.Type)

	TransactionTime	ID	Dim_Product	Dim_Reps	Dm_Stores
1	2/2/2023 4:40:32 PM	1-79	Value	Value	Value
2	2/2/2023 6:43:17 PM	1-94	Value	Value	Value
3	2/2/2023 8:17:06 PM	3-55	Value	Value	Value
4	2/2/2023 9:30:43 PM	1-105	Value	Value	Value
5	2/2/2023 9:30:43 PM	1-105	Value	Value	Value
6	2/2/2023 9:55:35 PM	3-60	Value	Value	Value
7	2/2/2023 10:03:29 PM	3-61	Value	Value	Value
8	2/2/2023 10:03:29 PM	3-61	Value	Value	Value
9	2/2/2023 10:06:17 PM	3-62	Value	Value	Value
10	2/2/2023 10:40:06 PM	3-69	Value	Value	Value
11	2/3/2023 12:05:53 AM	3-74	Value	Value	Value
12	2/3/2023 12:47:38 PM	1-112	Value	Value	Value
13	2/3/2023 12:49:39 PM	1-113	Value	Value	Value
14	2/3/2023 1:38:18 PM	3-79	Value	Value	Value
15	2/3/2023 1:38:18 PM	3-79	Value	Value	Value
16	2/3/2023 1:38:18 PM	3-79	Value	Value	Value
17	2/3/2023 1:38:18 PM	3-79	Value	Value	Value
18	2/3/2023 2:28:31 PM	3-90	Value	Value	Value
19	2/3/2023 2:28:31 PM	3-90	Value	Value	Value
20	2/3/2023 2:43:16 PM	1-127	Value	Value	Value
21	2/3/2023 4:46:45 PM	1-146	Value	Value	Value
22	2/3/2023 4:51:36 PM	1-147	Value	Value	Value
23	2/3/2023 4:52:22 PM	3-110	Value	Value	Value
24					

17 COLUMNS, 999+ ROWS Column profiling based on top 1000 rows

PREVIEW DOWNLOADED AT 12:06 PM

Query Settings

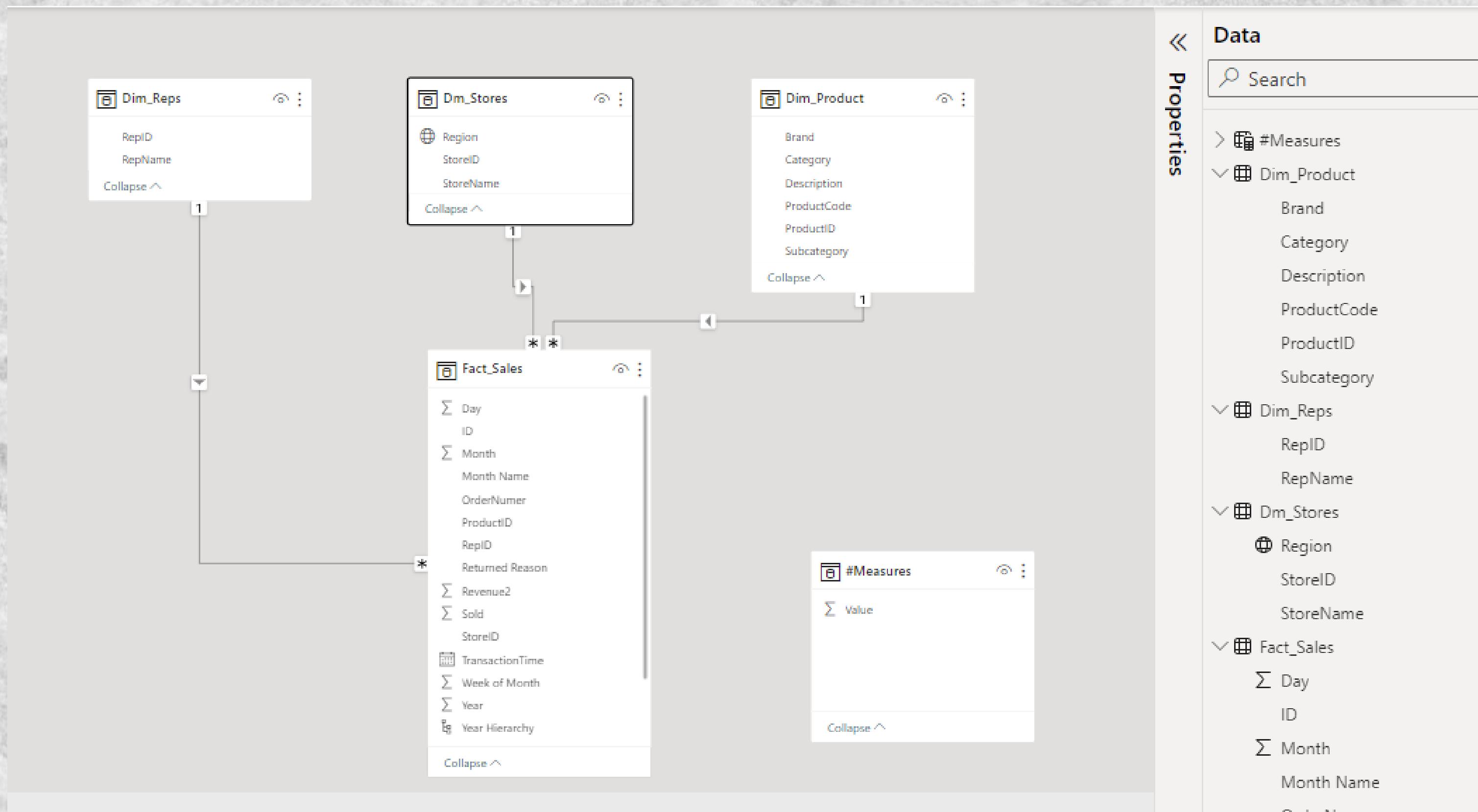
PROPERTIES

Name: Fact_Sales

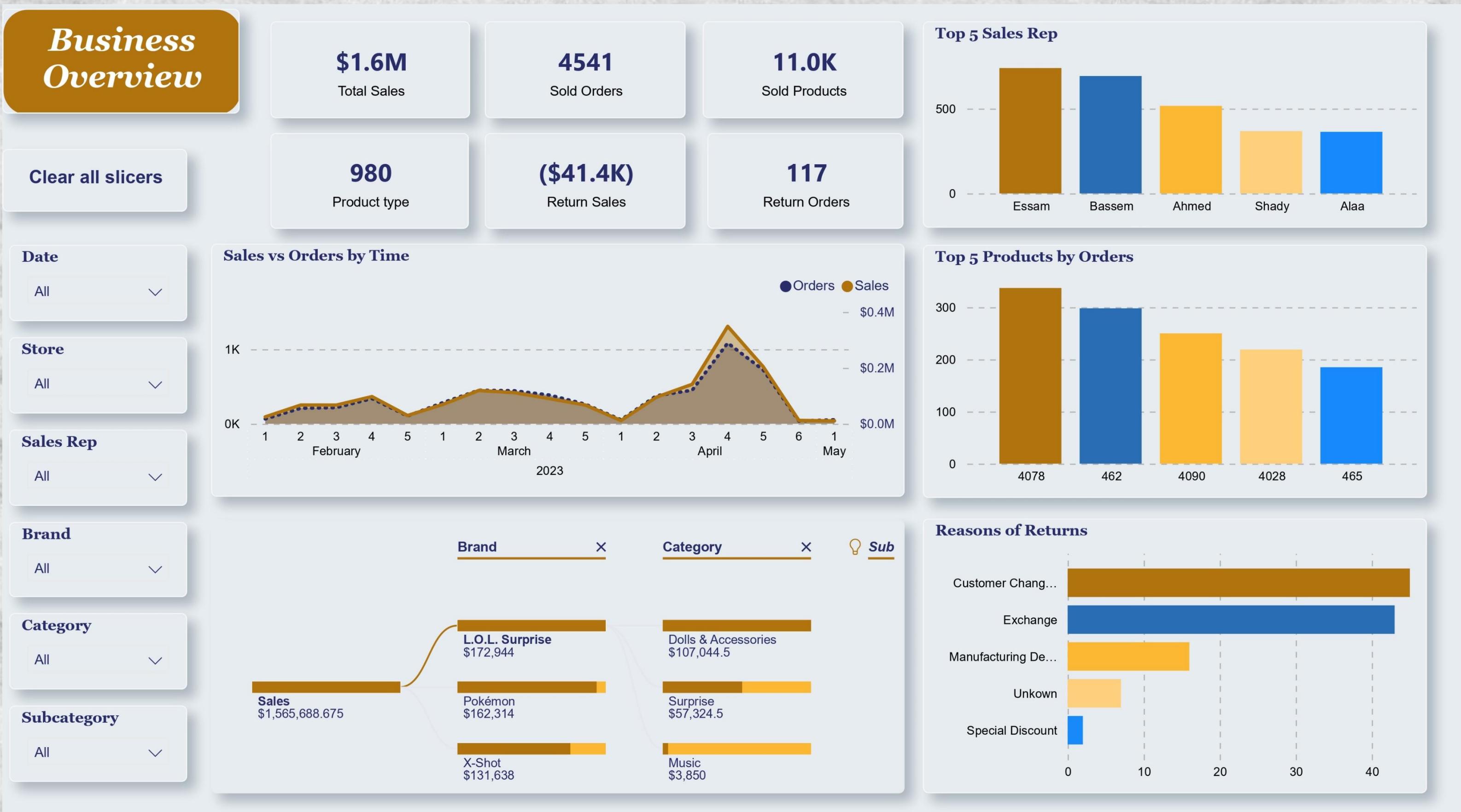
APPLIED STEPS

- source
- Navigation
- Changed Type
- Added Conditional Column
- Added Conditional Column1
- Reordered Columns
- Changed Type1
- Removed Columns
- Added Conditional Column2
- Changed Type2
- Removed Columns1
- Inserted Week of Month
- Reordered Columns1
- Removed Columns2
- Inserted Year
- Inserted Month Name
- Inserted Week of Month1
- Inserted Day
- Inserted Month

Data Modeling Processes



Power BI Dashboard



INSIGHTS

- What is the Total Sales?
- What is the Total Orders?
- How much are the products sold?
- How much are the products returned?





INSIGHTS

- What are the Top Products sold?
- Who are the top sales representatives?
- How are the sales and orders by time?
- What are the most common reasons for returns?

THANK YOU

Ammar Allam

