# Implementation of an On-Premises Data Warehouse Using SQL Server

I began by downloading the AdventureWorks2019 dataset and restoring it in SQL Server. Upon reviewing the data, I identified that the dataset contained 71 tables. Based on the assignment requirements, I selected the necessary data and proceeded with the ETL (Extract, Transform, Load) process.

Using SQL Server Integration Services (SSIS), I extracted the required tables and selected the relevant columns to stage the data. After performing the necessary transformations, I utilized SSIS again to create a data warehouse and merged the required tables.

Subsequently, I employed SQL Server Analysis Services (SSAS) to analyze the final dataset. Finally, I used Power BI to present the data through visual reports and dashboards, ensuring clear insights and effective data representation.
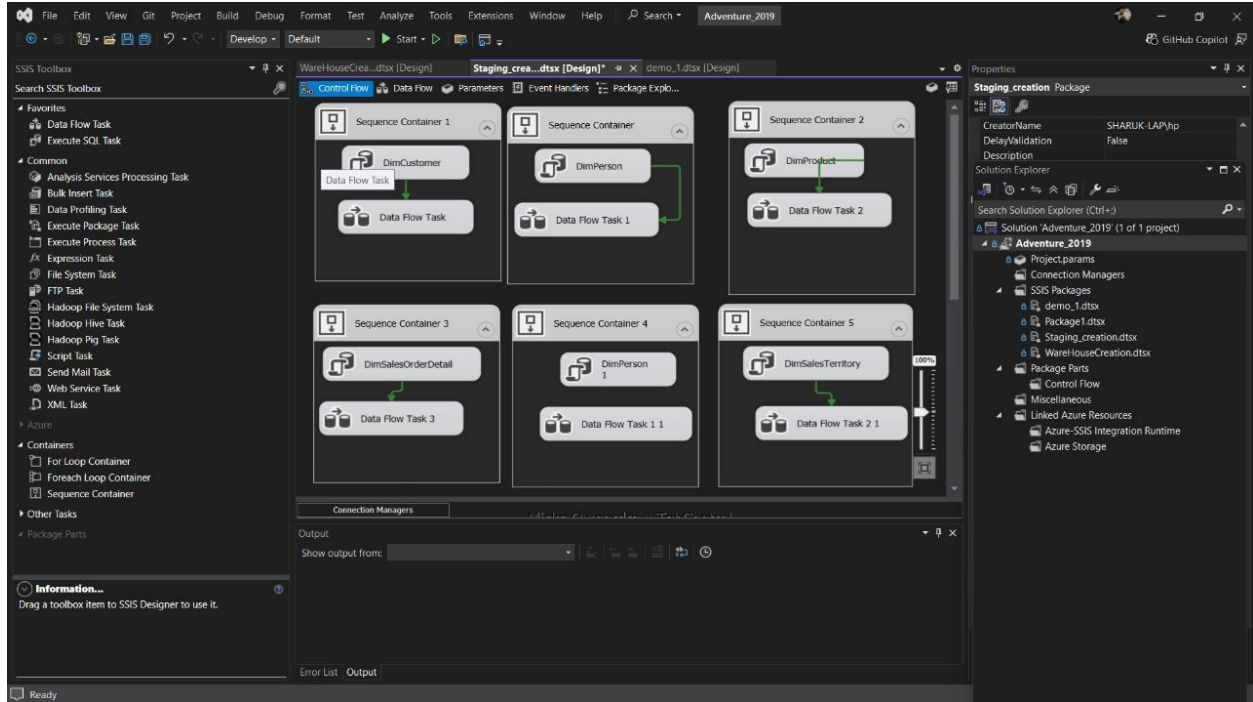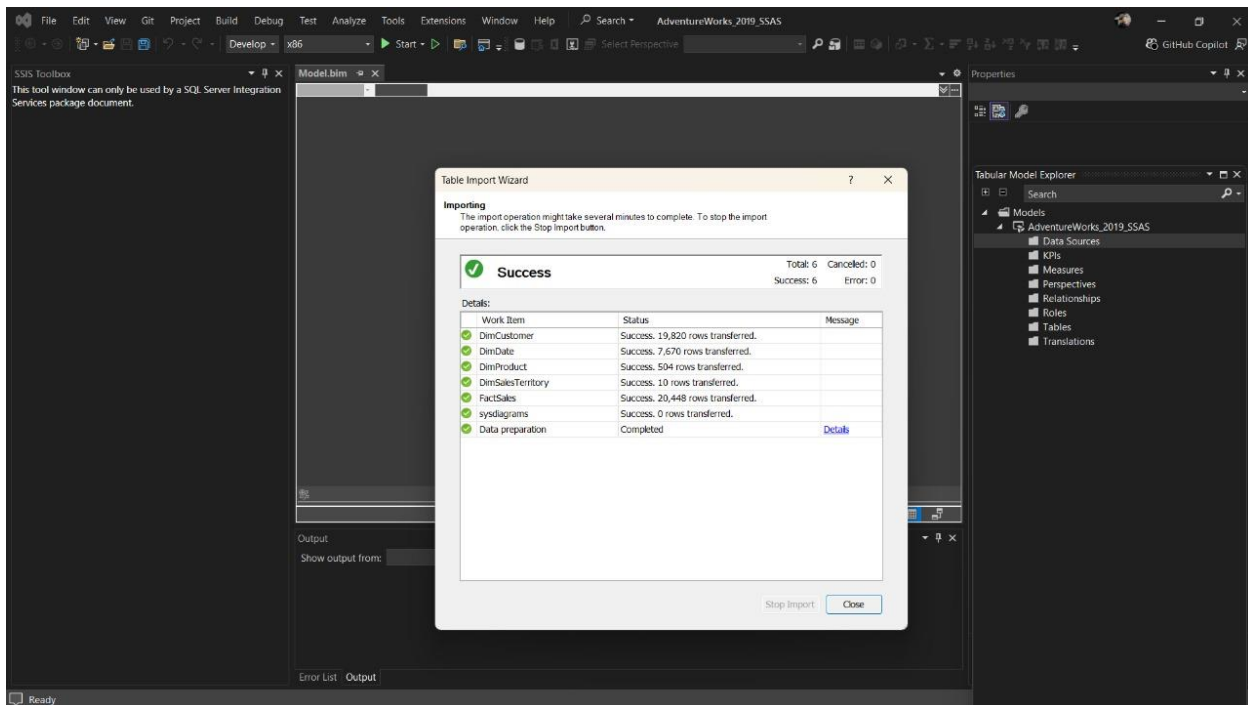
Table Overview
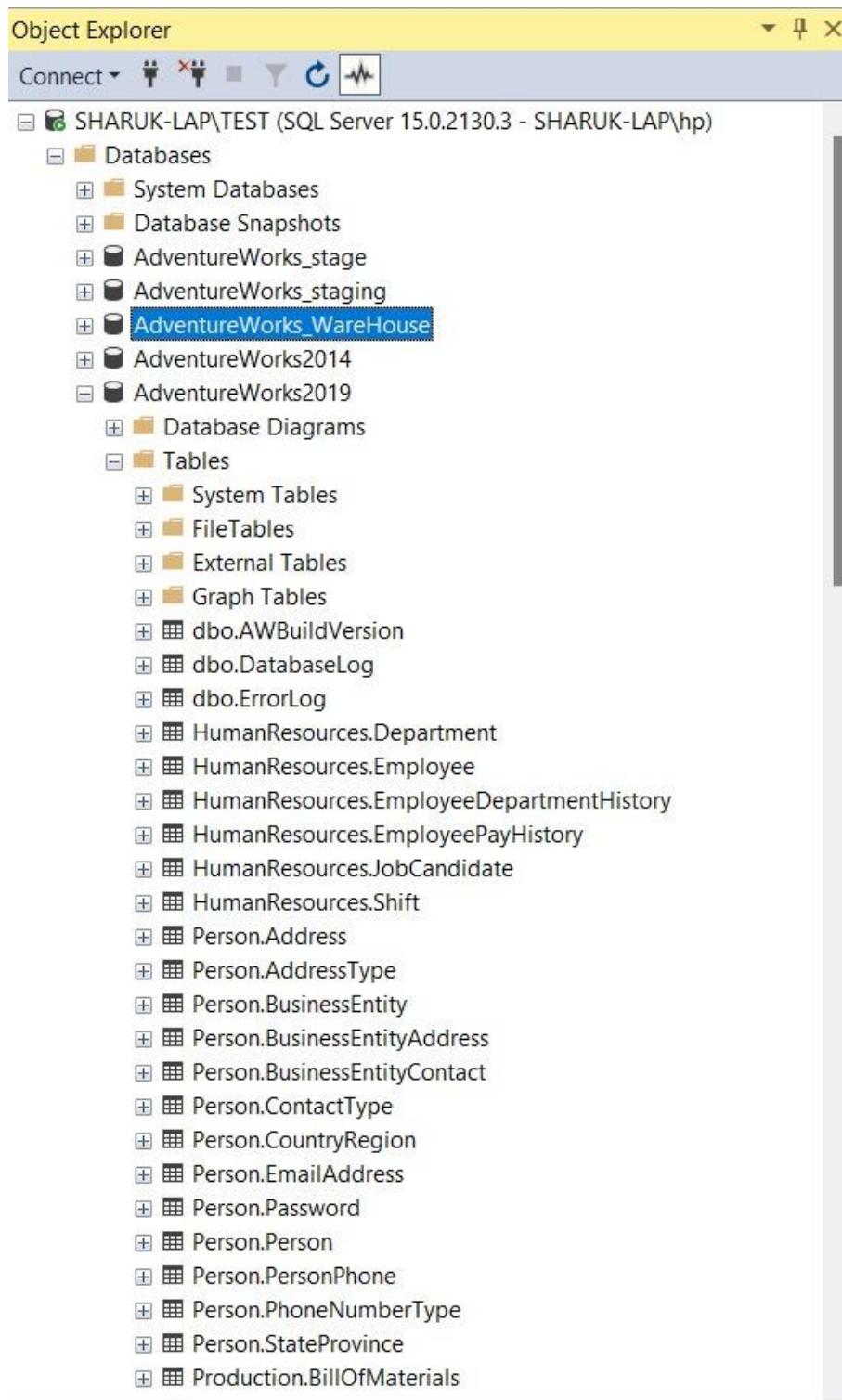
The following provides an overview of the scheme
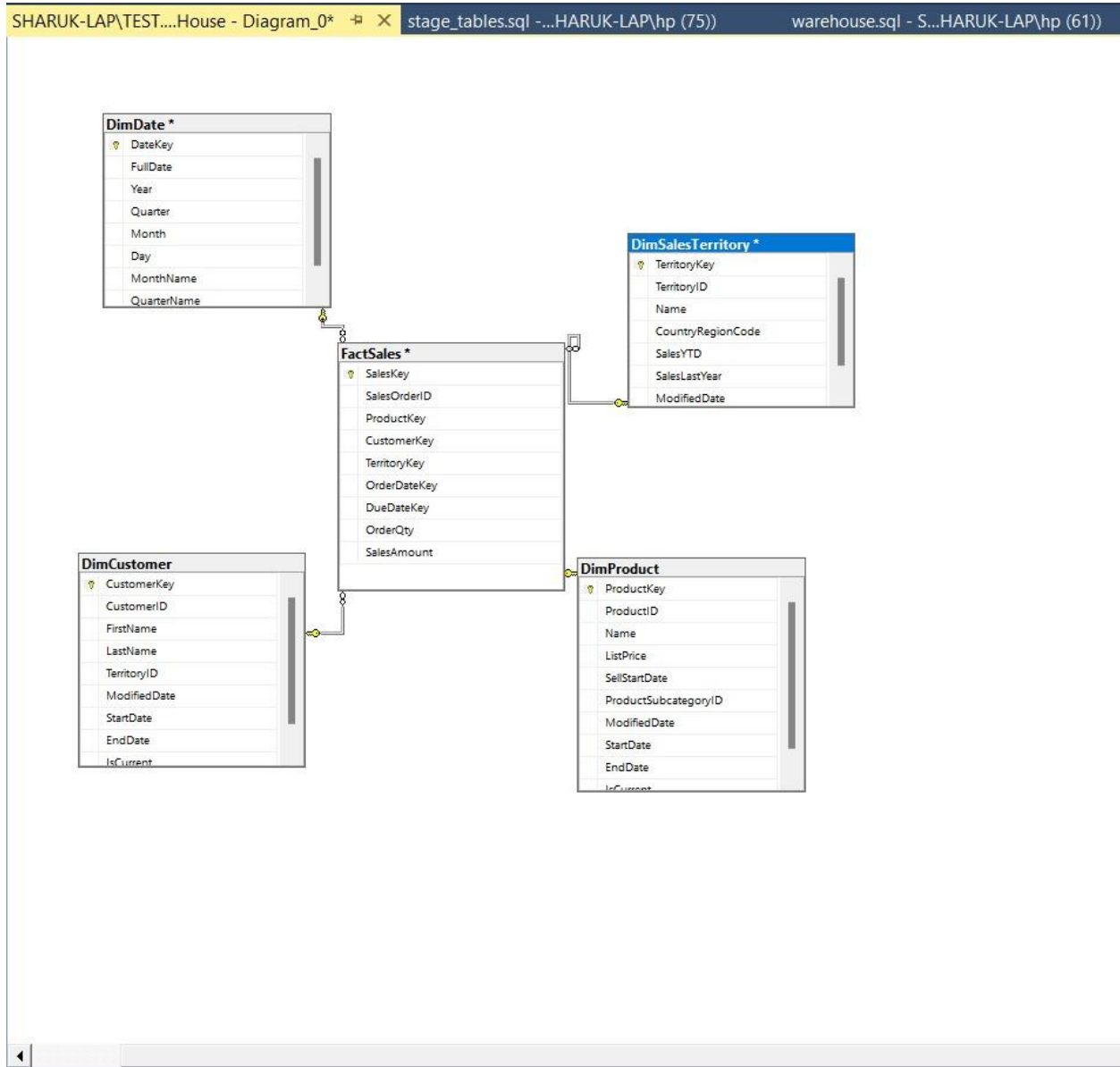
SSIS Overview

Imported into SSAS

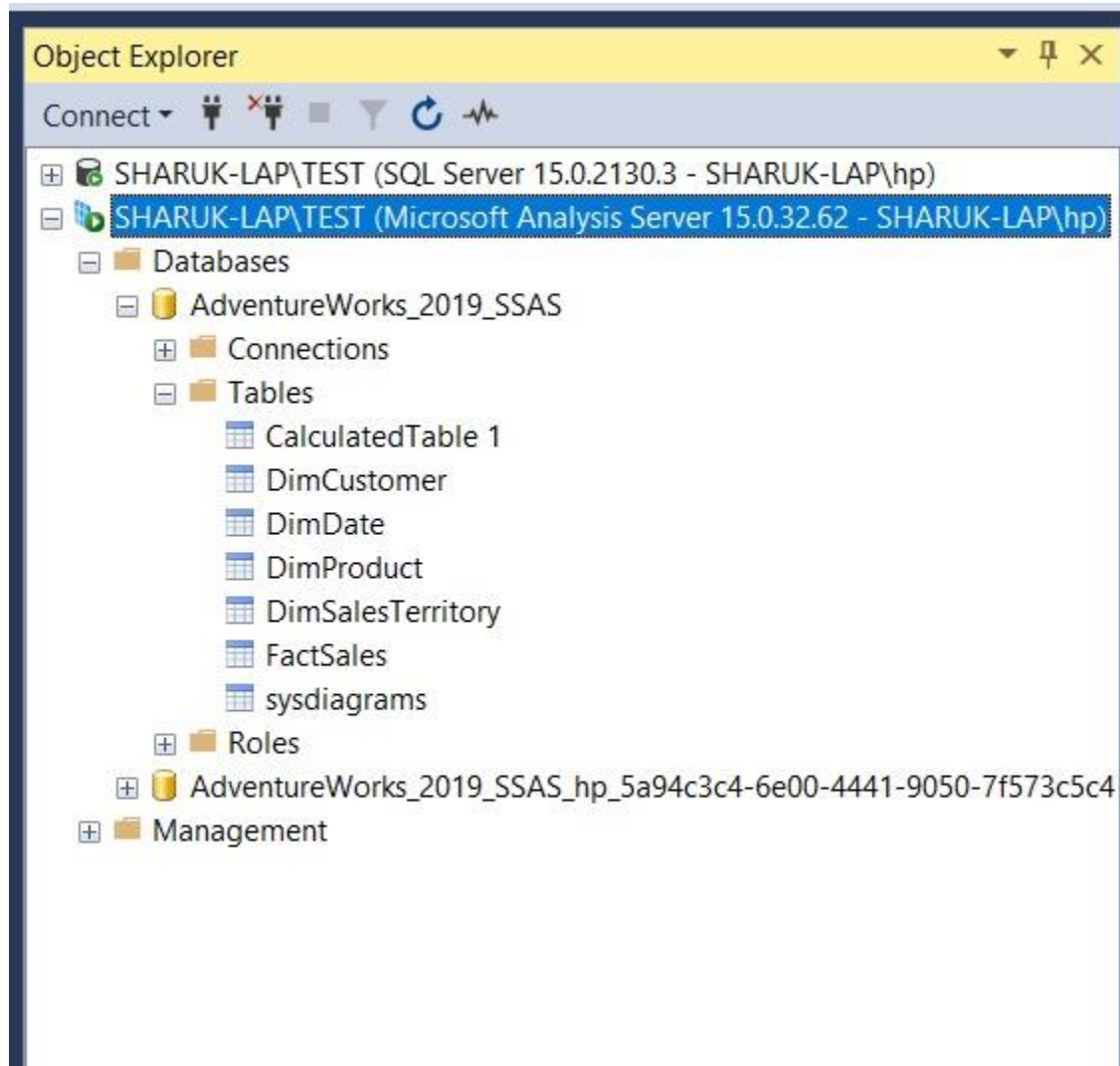Identified the measures using SSAS, and the deployment was successful.

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Power BI Visualization

Sum of Year by TerritoryID

	TerritoryID
15.49M (10%)	● 1
15.49M (10%)	● 2
15.49M (10%)	● 3
15.49M (10%)	● 4
15.49M (10%)	● 5
15.49M (10%)	● 6
15.49M (10%)	● 7
15.49M (10%)	● 8

Sum of Year by SalesYTD

	SalesYTD
15.49M (10%)	● $2,402,176.85
15.49M (10%)	● $2,538,667.25
15.4... (10%)	● $3,072,175.12
15.4... (10%)	● $3,805,202.35
15.49M (10%)	● $4,772,398.31
15.49M (10%)	● $5,012,905.37
	● $5,977,814.92
	● $6,771,829.14

Sales MTD by Year

Year: ● 2010, ● 2011, ● 2012, ● 2013, ● 2014, ● 2015, ● 2016, ● 2017

36.65M (4.76%) segments.

Sum of Year by Day

Day: ● 1, ● 2, ● 3, ● 4, ● 5, ● 6, ● 7, ● 8

296.94K (1.92%), 509.04K (3.29%) segments.