Lab 4 – Lake Database

1. Provision an Azure Synapse Analytics workspace

A screenshot of a computer

AI-generated content may be incorrect.

1. Modify container permissions

A screenshot of a computer

AI-generated content may be incorrect.

1. Create a lake database

A computer screen shot of a computer screen

AI-generated content may be incorrect.

1. Create a table

A screenshot of a computer

AI-generated content may be incorrect.

1. Load data into table’s storage path

A screenshot of a computer

AI-generated content may be incorrect.

1. Create and load data from database template and load into the table’s storage path

A screenshot of a computer

AI-generated content may be incorrect.

1. Create External table from data lake

A screenshot of a computer

AI-generated content may be incorrect.

1. Query tables using SQL

A screenshot of a computer

AI-generated content may be incorrect.

1. Insert data using Spark

A screenshot of a computer

AI-generated content may be incorrect.

1. Delete Azure resources and end the lab

A screenshot of a computer

AI-generated content may be incorrect.

Summary:

A lake database combines file storage with RDBMS capabilities, enabling structured querying of formats like CSV and Parquet while separating storage from compute resources. In this lab, an Analytics workspace was provisioned, container permissions were updated for Microsoft Entra, and a folder structure was created in storage with RetailDB containing Customer, Product, and SalesOrder subfolders. CSV files were uploaded, and a RetailDB database was set up in the workspace. The Customer table was manually created with a primary key, the Product table was built using templates, and data from the SalesOrder folder was connected via a linked service with automatic datatype detection and column renaming. Relationships were established between the tables to run join queries. Finally, a Spark pool was used to insert and query a record in the SalesOrder table before deleting the Azure resources to complete the lab.