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SQL Scripting Intermediate – Lab Module 4

OVERVIEW

In this lab, you will use set operators to combine the results of multiple queries in the **AdventureWorksLT** database.

Before starting this lab, you should view **Module 4 – Using Set Operators** in the course *Querying with Transact-SQL*. Then, if you have not already done so, follow the instructions in the **Getting Started** document for this course to set up the lab environment.

If you find some of the challenges difficult, don't worry – you can find suggested solutions for all of the challenges in the **Lab Solution** folder for this module.

WHAT YOU'LL NEED

- An Azure SQL Database instance with the **AdventureWorksLT** sample database. Review the **Getting Started** document for information about how to provision this.

CHALLENGE 1: RETRIEVE CUSTOMER ADDRESSES

Customers can have two kinds of address: a main office address and a shipping address. The accounts department want to ensure that the main office address is always used for billing, and have asked you to write a query that clearly identifies the different types of address for each customer.

Tip: Review the documentation for the UNION operator in the Transact-SQL Reference.

1. Retrieve billing addresses

Write a query that retrieves the company name, first line of the street address, city, and a column named **AddressType** with the value 'Billing' for customers where the address type in the **SalesLT.CustomerAddress** table is 'Main Office'.

2. Retrieve shipping addresses

Write a similar query that retrieves the company name, first line of the street address, city, and a column named **AddressType** with the value 'Shipping' for customers where the address type in the **SalesLT.CustomerAddress** table is 'Shipping'.

3. Combine billing and shipping addresses

Combine the results returned by the two queries to create a list of all customer addresses that is sorted by company name and then address type.

CHALLENGE 2: FILTER CUSTOMER ADDRESSES

You have created a master list of all customer addresses, but now you have been asked to create filtered lists that show which customers have only a main office address, and which customers have both a main office and a shipping address.

Tip: Review the documentation for the EXCEPT and INTERSECT operators in the Transact-SQL Reference.

1. Retrieve customers with only a main office address

Write a query that returns the company name of each company that appears in a table of customers with a 'Main Office' address, but not in a table of customers with a 'Shipping' address.

2. Retrieve only customers with both a main office address and a shipping address

Write a query that returns the company name of each company that appears in a table of customers with a 'Main Office' address, and also in a table of customers with a 'Shipping' address.

NEXT STEPS

Well done! You've completed the lab, and you're ready to learn how to add aggregate functions and groupings to your queries in **Module 5 – Using Functions and Aggregating Data** in the Course *Querying with Transact-SQL*.