tyler technologies Empowering people who serve the public™

SQL Scripting Basics – Lab Module 2

OVERVIEW

In this lab, you will use SELECT queries to retrieve, sort, and filter data from the **AdventureWorksLT** database.

Before starting this lab, you should view **Module 2 – Querying Tables with SELECT** 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 DATA FOR TRANSPORTATION REPORTS

The logistics manager at Adventure Works has asked you to generate some reports containing details of the company's customers to help to reduce transportation costs.

Tip: Review the documentation for the SELECT and ORDER BY clauses in the Transact-SQL Reference.

1. Retrieve a list of cities

Initially, you need to produce a list of all of you customers' locations. Write a Transact-SQL query that queries the Address table and retrieves all values for **City** and **StateProvince**, removing duplicates.

2. Retrieve the heaviest products

Transportation costs are increasing and you need to identify the heaviest products. Retrieve the names of the top ten percent of products by weight.

3. Retrieve the heaviest 100 products not including the heaviest ten

The heaviest ten products are transported by a specialist carrier, therefore you need to modify the previous query to list the heaviest 100 products not including the heaviest ten.

CHALLENGE 2: RETRIEVE PRODUCT DATA

The Production Manager at Adventure Works would like you to create some reports listing details of the products that you sell.

Tip: Review the documentation for the WHERE and LIKE keywords in the Transact-SQL Reference.

1. Retrieve product details for product model 1

Initially, you need to find the names, colors, and sizes of the products with a product model ID **1**.

2. Filter products by color and size

Retrieve the product number and name of the products that have a color of 'black', 'red', or 'white' and a size of 'S' or 'M'.

3. Filter products by product number

Retrieve the product number, name, and list price of products whose product number begins 'BK-'.

4. Retrieve specific products by product number

Modify your previous query to retrieve the product number, name, and list price of products whose product number begins 'BK-' followed by any character other than 'R', and ends with a '-' followed by any two numerals.

NEXT STEPS

Well done! You've completed the lab, and you're ready learn how to retrieve data from more than one table in **Module 3 – Querying Multiple Tables with Joins** in the course *Querying with Transact-SQL*.