

**Introduction to T-SQL for SQL Server for Report Writers**

**Course Number:** SQL-140  
**Duration:** 2 days

**Overview**

Accelebrate's Introduction to T-SQL for SQL Server for Report Writers training class teaches attendees the T-SQL and SQL Server skills they need to develop queries, views, and stored procedures for SQL Server.

**Prerequisites**

This course can be adapted to any level of prior SQL Server and relational database experience.

**Materials**

All SQL Server training students receive comprehensive courseware.

**Software Needed on Each Student PC**

Attendees will not need to install any software on their computers for this class. The class will be conducted in a remote environment that Accelebrate will provide; students will only need a local computer with a web browser and a stable Internet connection. Any recent version of Microsoft Edge, Mozilla Firefox, or Google Chrome will work well.

**Objectives**

* Understand how SQL Server works
* Learn to use SQL to output reports with SQL Server
* Learn to modify SQL Server data with SQL
* Learn how to write stored procedures for SQL Server

**Outline**

* Relational Database Basics
  + Brief History of SQL
  + Relational Databases [may be compressed due to attendee experience]
    - Tables
    - Rows
    - Columns
    - Relationships
    - Datatypes
    - Primary Keys
    - Foreign Keys
    - Relational Database Management System
  + SQL Server Objects
    - Valid Object References
  + SQL Statements
    - Database Manipulation Language (DML)
    - Database Definition Language (DDL)
    - Database Control Language (DCL)
* Simple SELECTs with SQL Server
  + Introduction to the Northwind Database
  + Some Basics
    - Comments
    - Whitespace and Semi-colons
    - Case Sensitivity
  + SELECTing All Columns in All Rows
  + Exploring the Tables
  + SELECTing Specific Columns
  + Sorting Records
    - Sorting By a Single Column
    - Sorting By Multiple Columns
    - Sorting By Column Position
    - Ascending and Descending Sorts
  + The WHERE Clause and Operator Symbols
    - Checking for Equality
    - Checking for Inequality
    - Checking for Greater or Less Than
    - Checking for NULL
    - WHERE and ORDER BY
  + The WHERE Clause and Operator Words
    - The BETWEEN Operator
    - The IN Operator
    - The LIKE Operator
    - The NOT Operator
  + Checking Multiple Conditions
    - AND
    - OR
    - Order of Evaluation
  + Writing SELECTs with Multiple Conditions
* Advanced SELECTs with SQL Server
  + Calculated Fields
    - Concatenation
    - Mathematical Calculations
    - Aliases
  + Aggregate Functions and Grouping
    - Aggregate Functions
    - Grouping Data
  + Built-in Data Manipulation Functions
    - Common Math Functions
    - Common String Functions
    - Common Date Functions
* Subqueries, Joins, and Unions with SQL Server
  + Subqueries
  + Joins
    - Table Aliases
    - Multi-table Joins
  + Outer Joins
  + Unions
    - UNION ALL
    - UNION Rules
* Inserting, Updating and Deleting Records with SQL Server
  + INSERT
  + UPDATE
  + DELETE
* Creating and Modifying Tables with SQL Server
  + Creating Tables
  + Datatypes
  + Altering Tables
    - Adding a Column
    - Dropping a Column
  + Renaming Tables
  + Dropping Tables
* Views and Stored Procedures in SQL Server
  + Creating Views
  + Dropping Views
  + Creating Stored Procedures
    - Designing a stored procedure
    - Specifying input parameters
    - Returning a recordset
    - Returning output parameters
  + Testing stored procedures
* Conclusion