

# SQL Server Training: The Complete TSQL Programming Course (DBTSQL, 4 jours)

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## Description

The course The Complete TSQL Programming Course (SQL Server Training) covers every aspect of the TSQL development language. Beginning with database basics like creating databases and tables, we proceed to a thorough investigation of the TSQL language. We discuss variable declaration, conditional and looping expressions and the use of native SQL functions. You learn advanced topics such as string and date time manipulation, the use of NULL values in tables and scripts and the use of stored procedures and BLOB data. This is a busy and rewarding week.

## Tarifs

- Tarification: \$3,750/person
- Rabais de 10% lorsque vous inscrivez 3 personnes.

## Plan de cours

### RDBMS Essentials

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About the Relational Database Management System

SQL Server and the .NET Framework

SQL Server Terminology: Databases, Tables, Columns, Rows, Keys, Etc

Application Development and SQL Server

OLTP: The Transactional Server

OLAP: The Analysis Server

XML Integration

Core SQL Server Services

Other SQL Server Services

The Role of ADO .NET

### Database Planning

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Planning Overview

Normal Forms

The Analysis

The Design

ER Notation

Generalizations

Aggregations

Putting It Together

### Creating the Database

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Planning the Installation

SQL Server Installation

Data Storage Architecture

Creating Database Files

Using File Groups

Optimizing Data Storage

### Creating Tables

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Integrity Overview

Creating Data Types

Creating Rules and Defaults

Creating a Table

Primary and Foreign Keys

About Constraints: Default and Check

Creating Triggers

Structured Query Language Basics

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SQL Overview

The Select Statement

Aggregate Values

The Insert Statement

The Update Statement

The Delete Statement

Using Views

TSQL Language Elements

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SQL Data Types

Stored Procedures and Metadata Views

Using Variables

Type Conversion

Dealing with Null Values

Dealing with Dates

Conditional Constructs

Looping Constructs

Useful Functions

Error Handling

Advanced Structured Query Language

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Join Strategies

Inner, Outer and Cross Joins

About Self-joins

Sub-queries

Using Temporary Objects

Stored Procedures

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Architectural Overview

Benefits of Stored Procedures

Using Built-in Stored Procedures

Creating Stored Procedures

Using Input and Output Parameters

Stored Procedure Optimization

Indexing

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Index Overview

Index Architecture

Clustered Indexes

Non-clustered Indexes

Unique Indexes

Indexes and Keys

Indexed Views

Optimizing Performance

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Optimization Overview

Using Query Analyzer

Gathering Performance Data

Optimizing for Select

Optimizing for Insert, Update and Delete

Query Hints

Join Strategies

SQL Server Transactions and Locks

Deadlocks and Livelocks

Practical SQL

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Planning the Work

Process Oriented Tasks

Analysis Related Tasks

Statistical Tasks

Data Integrity Checks

Using SSIS