



BLACK NINJA SOFTWARE

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T-SQL Fundamentals

Introduction

This course is a beginner's course in Transact-SQL. This course will introduce students to creating/managing database objects in SQL Server, querying tables, and using programmatic logic. To supplement learning, students will be provided with exercises with different databases to enable them to immediately practice what they've learned.

Audience

This course is intended for programmers and/or DBAs who have familiarity with databases and SQL Server, but need to write T-SQL code.

Pre-Requisites

Familiarity with relational databases

Course Format

Black Ninja courses are small by design. This allows for the instructor and students to interact more closely, and gives students opportunity to clarify concepts or raise questions as the training goes on.

Outline

Day	Module	Topic
1	1	Introduction to SQL Server Management Studio - Familiarizing with SSMS, running queries, tips and tricks, sqlcmd
1	2	Style Guide
1	3	Basic DDL - Creating Databases and Tables - CREATE statement, basic data types, constraints, attaching existing database files, restoring from database backups
1	4	Single Table Queries
1	5	Multi Table Queries
1	6	Subqueries
2	7	Table Expressions - Derived Tables, CTEs, Views
2	8	SET Operations - UNION, INTERSECT, SELECT
2	9	Data Modification - INSERT, BULK INSERT, UPDATE, DELETE, OUTPUT, intro to bcp
2	10	Programming with T-SQL - Variables, Batches, Flow Elements, Basic Error Handling, Cursors, Temporary Tables, Dynamic SQL
2/3	11	Stored Procedures - Creating/Maintaining, Different Arguments, Execution Plans
3	12	User Defined Functions - Scalar UDFs, Table Valued UDFs
3	13	Triggers - DML Triggers, DDL Triggers
3	14	Introduction to Transactions

Working Environment

Black Ninja will provide the environment. Students will be using SQL Server in a Virtual Machine, where they will have rights to create their databases and run their scripts.

Materials

Materials will be provided in this class. The book used for reference is Itzik Ben-Gan's T-SQL Fundamentals from Microsoft Press*.

Additional materials and resources will be provided as needed.

* Subject to change