

Introduction to SELECT Statements

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THE GLOBAL STANDARD IN PROFESSIONAL COMPUTER TRAINING



Management Studio Basics

Management Studio Basics

Connecting to SQL Server
Connecting to a Database
Adding Comments
Referencing Objects
Case Sensitivity

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Connecting to SQL Server

Server holds databases

Management Studio connection dialog box

- Server name
 - SERVER
 - If using a named instance, SERVER\INSTANCE
- Authentication
 - Windows authentication
 - Use Windows "run as" to change context
 - SQL authentication
 - Username and password stored in SQL Server
- Database
 - If not specified, uses your default database
 - Typically master

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Connecting to a Database

USE <database>

Databases dropdown box

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Adding Comments

Comments can make queries readable

Great for "notes" when learning TSQL

-- Single line comment
-- Everything after dashes commented

/*
Multiline comment
Everything in here is commented
*/

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Referencing Objects

Each object has four parts to its name

- Server
 - Default to the current server
- Database
 - Default to current database
- Schema
 - Defaults to configurable schema or dbo
 - Best practice is to always specify the name of the schema
- Object name

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Referencing Objects

Keywords and special characters in an object name

- [] (Square brackets)
- "" (Double quotes)
 - Must be enabled on server
 - Quoted identifiers

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Case Sensitivity

TSQL keywords are not case sensitive

- Convention is to put keywords in all capital letters

String comparisons may be case sensitive

- Can be set on database
- Can be changed in query



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Structure of a SELECT Statement

Statement Components

```
SELECT <columns>  
FROM <tables>  
WHERE <conditions>  
GROUP BY <columns>  
HAVING <conditions>  
ORDER BY <columns>
```

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Using SELECT Statements

Statement Components

```
SELECT <columns>
FROM <tables>
WHERE <conditions>
GROUP BY <columns>
HAVING <conditions>
ORDER BY <columns>
```

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Using SELECT

SELECT chooses columns
Columns separated by commas

- Convention: List columns on separate lines
- Be consistent

Can use * for all columns

- Bad practice

```
SELECT FirstName
      , LastName
      , EmailAddress
FROM   Person.Contact
```

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Column Aliases

Change name of columns

- External application may need different names
- Certain operations remove column name

```
<column> AS <alias>
```

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Performing Calculations

Perform calculations to determine values

Perform string concatenation to enhance display

Typical math operators supported:

- * (Multiply)
- / (Divide)
- + (Add - Also performs string concatenation)
- - (Subtract)
- % (Modulo)



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