

# Introduction to T-SQL Queries – Module 4

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# Module 4: Expressions

# What's in an expression?

- Column, really anything
- Column1 + Column2
- Concatenating strings  
    <string1> + <string2>
- Math  
    <number> <operator> <number>
- Lots of built-in functions!

# Functions

- CAST and CONVERT – change a data type
- ISNULL and COALESCE – replace NULL

# Demo: Expressions

# Lab

- Complete Module 4 Lab 1

# String functions

- RTRIM, LTRIM, TRIM remove spaces
- LEFT, RIGHT return a number of characters
- LEN, DATALENGTH return the length
- CHARINDEX find a string
- SUBSTRING return part of a string
- REVERSE returns the string backwards
- UPPER, LOWER returns all upper or lower case
- REPLACE replace part of a string

# Demo: String functions



# Lab

- Complete Module 4 Lab 2

# Working with Dates

- GETDATE, SYSDATETIME returns the server date
- DATEADD adds a time period to a date
- DATEDIFF finds the difference between two dates
- DATENAME, DATEPART returns part of a date
- DAY, MONTH, YEAR returns part of a date
- CONVERT, FORMAT formatting dates

Demo: Working with dates

# Lab

- Complete Module 4 Lab 3