Creating Variables and Custom Fields



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Module Overview



Exploring expressions

- Simple and complex
- Visual Basic code
- Common examples

Implementing variables

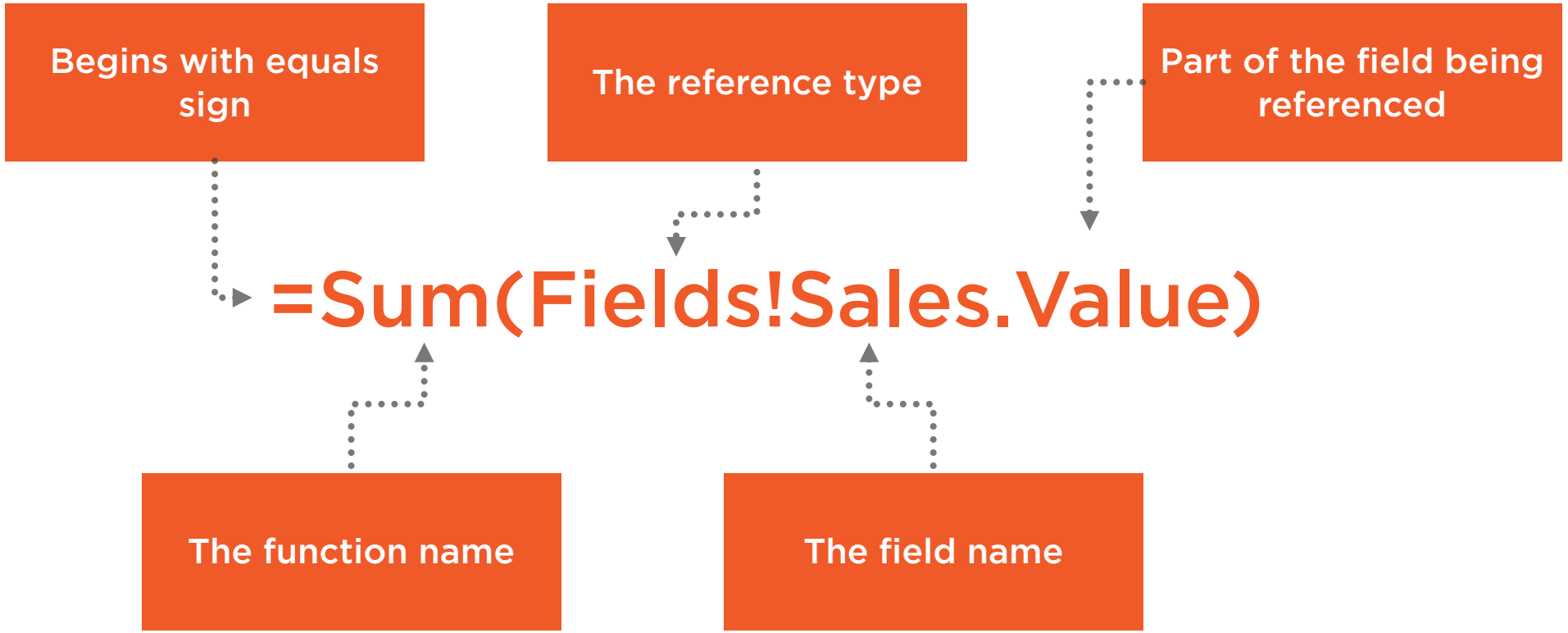
- Report variables
- Group variables
- Benefits of variables

Creating custom fields

- Calculated fields
- Missing from dataset

Exploring Expressions

Taking a Closer Look

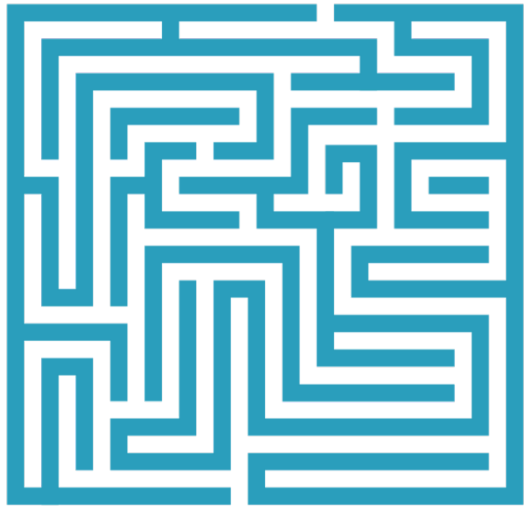


Types of Expressions



Simple Expression

Contains a reference to a single item



Complex Expression

Contains references to multiple items

Expression Key Points



It is possible to include comments in expressions
Easier to review at a later date



Complex expressions display differently
Referenced on a text box as <<Expr>>



There are tons of different expressions
Written in Microsoft Visual Basic

Demo



Exploring common expressions

- Adding line breaks
- Counting sales orders

Implementing Variables

Variable

A variable has a name (the word that you use to refer to the value that the variable contains). A variable also has a data type (which determines the kind of data that the variable can store).

- Microsoft

Exploring Variables

What is the variable in this problem?

$$4x - 6 = 5$$



Exploring Variables

What is the variable in this expression?

```
="Executed on " & Now()
```



Types of Variables



Report Variables

Global and reusable throughout the report



Group Variables

Specific to a particular group within the report

Variable Key Points



Variables are referenced from a text box
Different than just using a text box



Report variables are the most reusable
Group variables come in second



Report variables are considered read-only by default
Pay attention to naming

Demo



Create a report variable

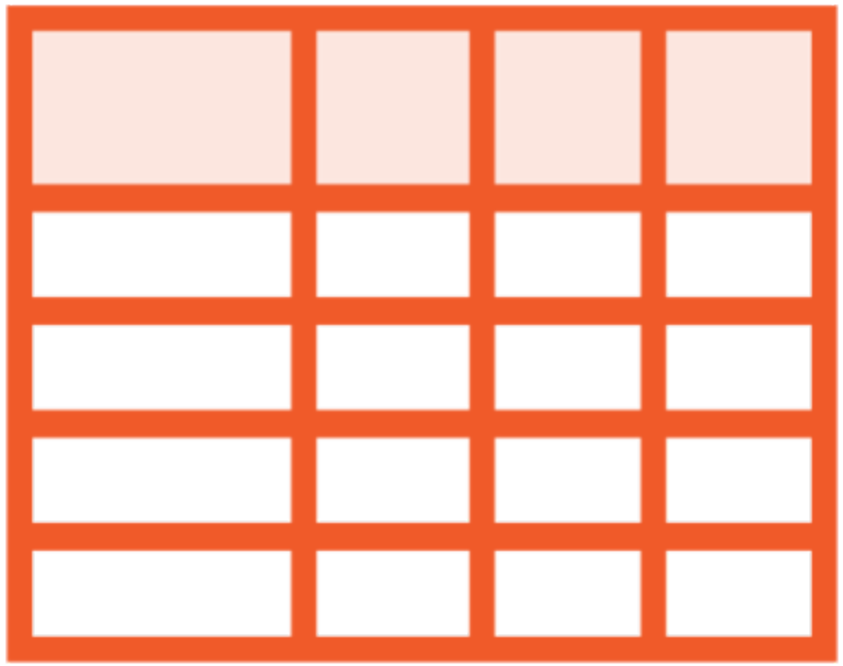
- Current date and time

Create a group variable

- Sales commission

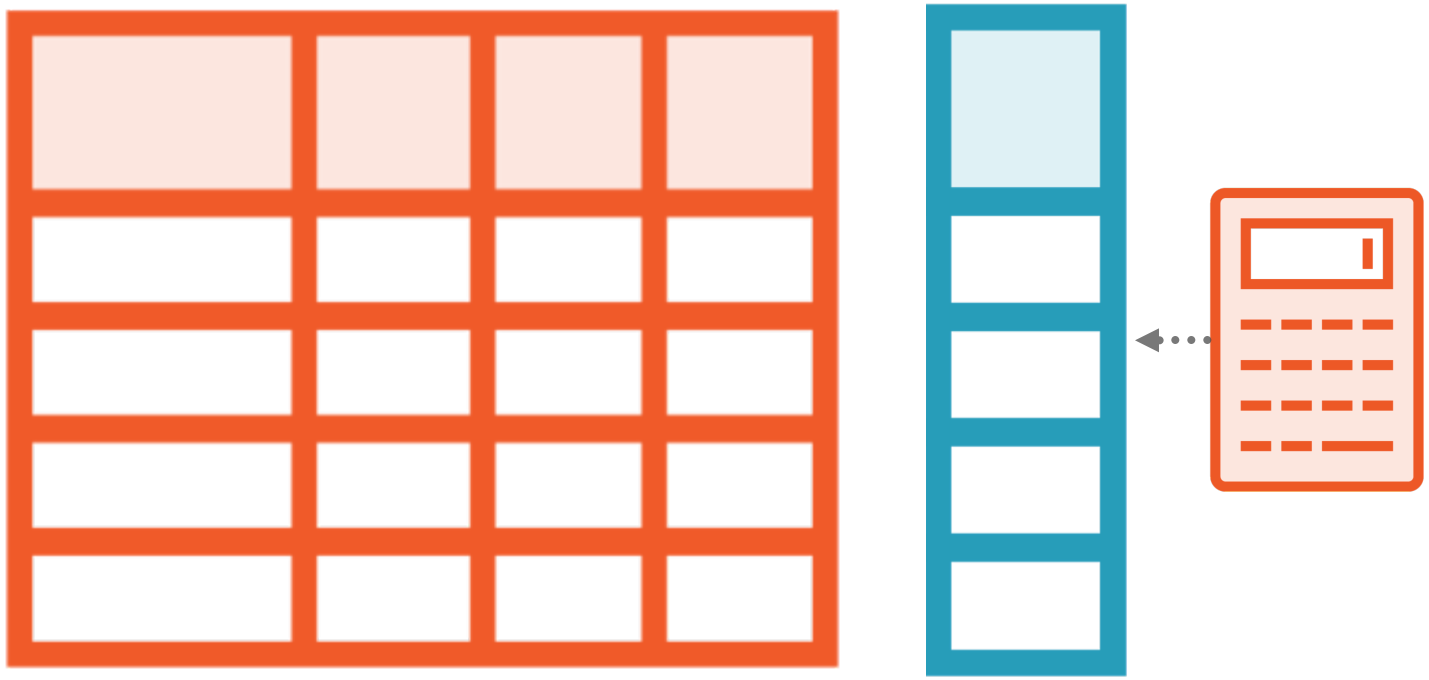
Creating Custom Fields

Looking at Custom Fields



MyReport.xlsx

Looking at Custom Fields





Why use custom fields?

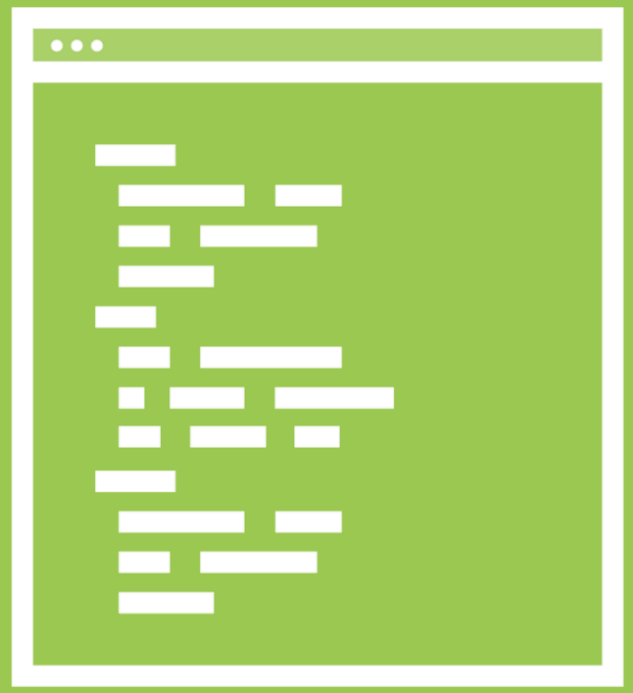
- Simple and complex calculations
- Performing a switch
  - Evaluates an expression

Access to underlying data

- Missing source query

Data source could be a stored procedure

- Frequent modifications



Keeping Code Together

It’s generally considered a best practice to keep all your code together. Sometimes this doesn’t work in the real world.

Demo



Adding a custom field

- Highlight sales performance

What We Covered



Explored expressions

- Simple and complex
- Visual Basics
- Common examples

Created variables

- Report and group
- Reusability and caching

Reviewed custom fields

- Unable to change query
- Keeping code together

Up Next:
Creating and Publishing Report Parts