



EXCEL IS

POWER

APQ0.1

Advanced Power Query

“M” STEP BY STEP Beginners Guide (PART II)

M-CODE



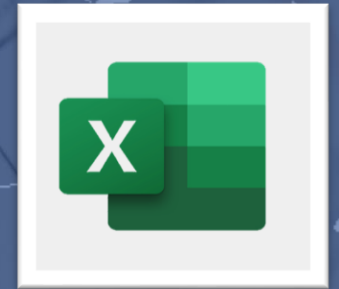


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Introduction

- M Language Structure
- Applied Steps
- Expressions & Values
- Value types in M language





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Value types in M language

- Primitive Value
- Function Value
- Structured Data Values





Structured data values

1. List
2. Record
3. Table



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Lists

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List

A List is a **zero-based ordered sequence** of values enclosed in curly brace characters { }

0 1 2
↓ ↓ ↓

To create list of numbers : {2,4,6}

To create a list of a range of numbers: {1..100}

To create a list of lists: {{2,4},{6,8},{10,12}}

To create a list of records:

{[ID=1,Name="Tarek"], [ID=3,Name="Ahmed"]}



List.. Continued

To access primitive value from a list:

To get the **first** item of the list: $\{2,4,6\}\{0\}$

To get the **2nd** item of the **3rd** list:

$\{\{2,4\},\{6,8\},\{10,12\}\}\{2\}\{1\}$

To get the **2nd** record:

$\{[ID=1,Name="Tarek"], [ID=3,Name="Ahmed"]\}\{1\}$



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Records

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Record

A Record is a set of **fields**. A field is a **name/value** pair where the name is a text value that is unique within the field's record

Order ID	Vendor	Amount	Date	← Unique
C100	AAA	100	12/31/2020	

↑ ↑ ↑ ↑

Order ID	C100
Vendor	AAA
Amount	100
Date	12/31/2020

View in Power Query Editor



Record... continued

To create a record:

MyRecord = [Order ID = "C100",

Vendor = "AAA",

Amount = 100,

Date = #date(2020,12,31)]

To get the value of a specific field:

MyRecord[Vendor]



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Tables

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Table

A Table is a set of values organized into named columns and rows.

List ↓

	OrderID	Vendor	Amount	Date
0	C100	AAA	100	12/31/2020
1	C200	XXX	150	1/1/2021
2	C300	BBB	200	2/1/2021

←
Record



Table .. Continued

Use #table to create a table from a list of column names & a list of rows.

To create a table:

```
MyTable = #table (  
    {"OrderID", "Vendor", "Amount", "Date"},  
    {  
        {"C100", "AAA", 100, #date(2020, 12, 31)},  
        {"C200", "XXX", 150, #date(2021, 01, 01)},  
        {"C300", "BBB", 200, #date(2021, 02, 01)}  
    }  
)
```




Table .. Continued

To access first row of a table:

FirstRow = MyTable{0}

To access specific column:

VendorColumn = MyTable[Vendor]

To access the value of Date column in the 2nd row:

Value = MyTable{1}[Date]

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