A Blog Article by



Crib Sheets

John HR Schuster

Version 2.1b, 02/06/2020

Table of Contents

| l. | MSAccess | . 1 |
|----|--|-----|
| | 1.1. Substring (MID) | . 1 |
| | 1.2. Format values | . 1 |
| | 1.3. Check if folder or file exists | . 3 |
| | 1.4. Copy file. | . 4 |
| | 1.5. Hide second column in Combo box | . 6 |
| | 1.6. Refresh Subform with new QueryDef SQL | . 6 |
| | 1.7. Convert expression to data type (C) | . 6 |
| | 1.8. Creating User Properties (Tables / Queries) | . 7 |
| | 1.9. Turn off datasheet Sort/Filter | . 8 |
| | 1.10. Requery a form from another form | . 8 |
| | 1.11. Relinking table VBA | . 8 |
| | 1.12. Sort Hidden properties of datasheet | . 9 |
| | 1.13. Change Hide / Show of a field on datasheet | 11 |
| | 1.14. Select Case (If-Then-Else) | 11 |
| | 1.15. Access columns of Combo control | 12 |
| | 1.16. Set Filter on Subform from Main Form | 12 |
| | 1.17. Reset query Column Order setting | 12 |
| | 1.18. Open Dynaset, change SQL | 13 |
| | 1.19. Open recordset, add row | 13 |
| | 1.20. Select Cased Statement (VBA) | 14 |
| 2. | MySQL | 14 |
| | 2.1. Like with Join. | 14 |
| | 2.2. Update with Where | 14 |
| | 2.3. Count Distinct | 14 |
| | 2.4. Count nulls | 15 |
| | 2.5. Add a Auto Increment column to a table | 15 |
| | 2.6. Case (Select) | 15 |
| 3. | SQL Server | 15 |
| | 3.1. Concat | 15 |
| | 3.2. Cast Number into string | 15 |
| | 3.3. Round | 16 |
| | 3.4. Find string within a string | 16 |
| | 3.5. Create Table Select | 16 |
| | 3.6. IF then else | 17 |
| | 3.7. Immediat If (IIF) | 17 |
| | 3.8. Variables | 17 |
| | 3.9. Substring (Substr) | 18 |

| | 3.10. Update with a Join | 18 |
|----|--------------------------------------|----|
| | 3.11. Charindex (InStr) | 19 |
| | 3.12. Len (Length) of string | 19 |
| | 3.13. Copy Table | 19 |
| | 3.14. Parameters in SP. | 20 |
| 4. | SQLite | 20 |
| | 4.1. DSNLess ODBC connection | 20 |
| 5. | Powershell | 22 |
| | 5.1. Extract x Top rows of text file | 22 |
| 6. | Document History | 23 |

These are crib notes. Every time I look something up more than once I try to add it to this document. Something simple.

The PDF version of this document is available at this Link

1. MSAccess

1.1. Substring (MID)

The Microsoft Access Mid function extracts a substring from a string (starting at any position).

```
Mid ( text, start_position, [number_of_characters] )
```

https://www.techonthenet.com/access/functions/string/mid.php

1.2. Format values

The Format function does exactly the same thing as formatting a number or a date within a cell in a spreadsheet, except it does so from within the code itself. If you wish to display a number in a message box or on a user form, this function is very useful for making it readable, particularly if it is a large number

Examples

```
Format(1234567.89, "#,###.#")

format(([On_Hand]-[Qty_Needed]), "#,##0[Black];(#,##0)[Red];0;0")

sReturn = Format(sValueIS, "$###,###,###,##0[Black];($###,###,###,##0)[Red];;")
```

Table 1. Predefined Formats

| Format Name | Description |
|----------------|--|
| General Number | Display the number as is. |
| Currency | Display the number with currency symbol. Use thousand separator. Enclose in brackets if negative. Display to two decimal places. |
| Fixed | Display at least one digit to the left and two digits to the right of the decimal point. |
| Standard | Display number with thousand separator. Display to two decimal places. |
| Percent | Display number multiplied by 100 with a percent sign (%) appended after. Display to two decimal places. |
| Scientific | Use standard scientific notation. |
| Yes/No | Display No if number is 0; otherwise, display Yes. |
| True/False | Display False if number is 0; otherwise, display True. |

| Format Name | Description |
|-------------|--|
| On/Off | Display Off if number is 0; otherwise, display On. |

A number of characters can be used to define a user-defined format, as shown below. The format string can have up to four sections separated by semicolons (;). This is so different formats can be applied to different values, such as to positive and negative numbers. For example, you may wish to show brackets/parentheses around a negative value

Table 2. SectionDetail

| Number of Sections | Formatting |
|-----------------------|--|
| One section only | Applies to all values |
| Two sections | First section for positive values, second section for negative values |
| Three sections | First section for positive values, second section for negative values, third section for zeros |
| Four sections | First section for positive values, second section for negative values, third section for zeros, fourth section for null values |

Table 3. User-Defined Formats

| Character | Description | |
|-----------------|---|--|
| Null String | No formatting. | |
| 0 | Digit placeholder. Displays a digit or a zero. If there is a digit for that position, then it displays the digit; otherwise, it displays 0. If there are fewer digits that zeros, you will get leading or trailing zeros. If there are more digits after the decimal point than there are zeros, then the number is rounded to the number of decimal places shown by the zeros. If there are more digits before the decimal point than zeros, these will be displayed normally. | |
| # | Digit placeholder. This displays a digit or nothing. It works the same as the preceding zero placeholder, except that leading and trailing zeros are not displayed. For example, 0.75 would be displayed using zero placeholders, but this would be .75 using # placeholders. | |
| .Decimal point. | Only one permitted per format string. This character depends on the settings in the Windows Control Panel. | |
| % | Percentage placeholder. Multiplies number by 100 and places % character where it appears in the format string. | |
| , | Thousand separator. This is used if 0 or # placeholders are used and the format string contains a comma. One comma to the left of the decimal point means to round to the nearest thousand (e.g., 0,). Two adjacent commas to the left of the thousand separator indicate rounding to the nearest million (e.g., 0,,). | |
| E- E+ | Scientific format. This displays the number exponentially. | |
| : | Time separator-used when formatting a time to split hours, minutes, and seconds. | |
| / | Date separator-this is used when specifying a format for a date. | |

| Character | Description |
|-----------|---|
| -+\$() | Displays a literal character. To display a character other than listed here, precede it with a backslash (\). |

Table 4. Predefined Date and Time Formats

| Format Name | Description |
|--------------|--|
| General Date | Display a date and/or time. For real numbers, display date and time. Integer numbers display time only. If there is no integer part, then display only time. |
| Long Date | Displays a long date as defined in the international settings of the Windows Control Panel. |
| Medium Date | Displays a date as defined in the short date settings of the Windows Control Panel, except it spells out the month abbreviation. |
| Short Date | Displays a short date as defined in the International settings of the Windows Control Panel. |
| Long Time | Displays a long time as defined in the International settings of the Windows Control Panel. |
| Medium Time | Displays time in a 12-hour format using hours, minutes, and seconds and the AM/PM format. |
| Short Time | Displays a time using 24-hour format (e.g., 18:10). |

https://sourcedaddy.com/ms-access/format-function.html

1.3. Check if folder or file exists

```
Function FileExists(ByVal strFile As String, Optional bFindFolders As Boolean) As
Boolean
    'Purpose:
               Return True if the file exists, even if it is hidden.
    'Arguments: strFile: File name to look for. Current directory searched if no path
included.
                bFindFolders. If strFile is a folder, FileExists() returns False
unless this argument is True.
                Does not look inside subdirectories for the file.
    'Note:
    'Author:
               Allen Browne. http://allenbrowne.com June, 2006.
    Dim lngAttributes As Long
    'Include read-only files, hidden files, system files.
    lngAttributes = (vbReadOnly Or vbHidden Or vbSystem)
   If bFindFolders Then
        lngAttributes = (lngAttributes Or vbDirectory) 'Include folders as well.
   Else
        'Strip any trailing slash, so Dir does not look inside the folder.
        Do While Right$(strFile, 1) = "\"
            strFile = Left$(strFile, Len(strFile) - 1)
        Loop
   End If
    'If Dir() returns something, the file exists.
    On Error Resume Next
    FileExists = (Len(Dir(strFile, lngAttributes)) > 0)
End Function
Function FolderExists(strPath As String) As Boolean
    On Error Resume Next
    FolderExists = ((GetAttr(strPath) And vbDirectory) = vbDirectory)
End Function
Function TrailingSlash(varIn As Variant) As String
    If Len(varIn) > 0 Then
        If Right(varIn, 1) = "\" Then
            TrailingSlash = varIn
        Else
            TrailingSlash = varIn & "\"
        End If
    End If
End Function
```

1.4. Copy file

Access Copy File

```
'-----
```

```
' Procedure : CopyFile
' Author : Daniel Pineault, CARDA Consultants Inc.
' Website : http://www.cardaconsultants.com
' Purpose : Copy a file
             Overwrites existing copy without prompting
             Cannot copy locked files (currently in use)
'Copyright: The following is release as Attribution-ShareAlike 4.0 International
             (CC BY-SA 4.0) - https://creativecommons.org/licenses/by-sa/4.0/
' Req'd Refs: None required
' Input Variables:
1 ~~~~~~~
'sSource - Path/Name of the file to be copied
'sDest - Path/Name for copying the file to
' Revision History:
           Date(yyyy/mm/dd)
                                   Description
           2007-Apr-01
                                   Initial Release
Public Function CopyFile(sSource As String, sDest As String) As Boolean
On Error GoTo CopyFile_Error
   FileCopy sSource, sDest
   CopyFile = True
   Exit Function
CopyFile_Error:
   If Err.Number = 0 Then
    ElseIf Err.Number = 70 Then
        MsgBox "The file is currently in use and therfore is locked and cannot be
copied at this" & _
              " time. Please ensure that no one is using the file and try again.",
vbOKOnly, _
              "File Currently in Use"
    ElseIf Err.Number = 53 Then
        MsgBox "The Source File '" & sSource & "' could not be found. Please validate
the" & _
              " location and name of the specifed Source File and try again",
vbOKOnly, _
              "File Currently in Use"
    Else
       MsgBox "MS Access has generated the following error" & vbCrLf & vbCrLf &
"Error Number: " &
              Err.Number & vbCrLf & "Error Source: CopyFile" & vbCrLf & _
              "Error Description: " & Err.Description, vbCritical, "An Error has
Occurred!"
   End If
```

Exit Function
End Function

https://www.devhut.net/2010/09/29/ms-access-vba-copy-a-file/

1.5. Hide second column in Combo box

In Visual Basic, the ColumnWidth property setting is an Integer value that represents the column width in twips. You can specify a width or use one of the following predefined settings.



When you use a 0 as a ColumnWidth, that columns is not available in vba.

Table 5. Special ColmnWidth Values

| Setting | Description | |
|---------|--|--|
| 0 | Hides the column. | |
| 1 | (Default) Sizes the column to the default width. | |

The Alternative method which allows the column to be used is setting the first columns width to something like 5"

1.6. Refresh Subform with new QueryDef SQL

You can't requery, you have to refresh the subform source object:

```
MySubformControl.SourceObject = ""
MySubformControl.SourceObject = "Query.MyQuery"
```

1.7. Convert expression to data type (C)

The function name determines the return type as shown in the following:

| Function | Return Type | Range for expression argument |
|----------|-------------|--|
| CBool | Boolean | Any valid string or numeric expression. |
| CByte | Byte | 0 to 255. |
| CCur | Currency | -922,337,203,685,477.5808 to 922,337,203,685,477.5807. |
| CDate | Date | Any valid date expression. |
| CDbl | Double | -1.79769313486231E308 to-4.94065645841247E-324 for negative values; 4.94065645841247E-324 to 1.79769313486232E308 for positive values. |

| Function | Return Type | Range for expression argument |
|----------|-------------|---|
| CDec | Decimal | +/-79,228,162,514,264,337,593,543,950,335 for zero-scaled numbers, that is, numbers with no decimal places. For numbers with 28 decimal places, the range is +/-7.9228162514264337593543950335. The smallest possible non-zero number is 0.0000000000000000000000000000000000 |
| CInt | Integer | -32,768 to 32,767; fractions are rounded. |
| CLng | Long | -2,147,483,648 to 2,147,483,647; fractions are rounded. |
| CSng | Single | -3.402823E38 to -1.401298E-45 for negative values; 1.401298E-45 to 3.402823E38 for positive values. |
| CStr | String | Returns for CStr depend on the expression argument. |
| CVar | Variant | Same range as Double for numerics. Same range as String for non-numerics. |

1.8. Creating User Properties (Tables / Queries)

You can create user-defined properties for persistent DAO objects, such as tables and queries. You can't create properties for nonpersistent objects, such as recordsets. To create a user-defined property, you must first create the property, using the Database's CreateProperty method. You then append the property using the Properties collection's Append method. That's all there is to it.

Using the example of a field's Description property, the following code demonstrates just how easy it is:

```
Public Sub SetFieldDescription(strTableName As String, _
    strFieldName As String, _
    varValue As Variant, _
)
    Dim dbs As DAO.Database
    Dim prop As DAO. Property
    Set dbs = CurrentDb
    'Create the property
    Set prop = dbs.CreateProperty("Description", dbText, varValue)
    'Append the property to the object Properties collection
    dbs(strTableName)(strFieldName).Properties.Append prop
    Debug.Print dbs(strTableName)(strFieldName).Properties("Description")
    'Clean up
    Set prop = Nothing
    Set dbs = Nothing
Fnd Sub
```

https://sourcedaddy.com/ms-access/setting-and-retrieving-built-in-object-properties.html

1.9. Turn off datasheet Sort/Filter

On design view go to the properties page. Under the "Other" or "All" tab find Shortcut Menu. Change that property from Yes to No and save. Be warned though that this will disable all shortcuts for the form and not just the drop down filter/sort menus on column headings in datasheet view.

1.10. Requery a form from another form

e.dirty = false
Forms!frmLegacy.Requery

Source: http://www.utteraccess.com/forum/Requery-Form-Form-t2001669.html

1.11. Relinking table VBA

```
Function ReLinkTable(strTable As String, strPath As String) As Boolean
 ' Comments: Re-links the named table to the named path
  ' Params : strTable Table name of the linked table
  ' strPath : full path name of the database containing the real table
  ' Returns : True if successful, False otherwise
 Dim fOK As Boolean
 Dim dbs As DAO.Database
 Dim tdf As DAO.TableDef
 Dim strPrefix As String
 Dim strNewConnect As String
 fOK = False
 On Error GoTo PROC_ERR
 Set dbs = CurrentDb()
 Set tdf = dbs.TableDefs(strTable)
 strPrefix = Left$(tdf.Connect, InStr(tdf.Connect, "="))
 strNewConnect = strPrefix & strPath
 tdf.Connect = strNewConnect
 tdf.RefreshLink
 fOK = True
PROC_EXIT:
 dbs.Close
 ReLinkTable = fOK
 Exit Function
PROC_ERR:
 Resume PROC_EXIT
Fnd Function
```

http://www.fmsinc.com/microsoftaccess/databasesplitter/

1.12. Sort Hidden properties of datasheet

The properties in Access related to datasheet.

Table 6. Hidden Properties

| Property | Meaning and Usage |
|--------------|--|
| ColumnHidden | Exists on columns in the datasheet, controls whether the column is visible or not. |
| ColumnWidth | Exists on columns in the datasheet, controls the width of the column. |

| Property | Meaning and Usage | |
|--------------------------------|---|--|
| DatasheetBackCol or | Exists on the datasheet itself, specifies the background color for the whole datasheet. | |
| DatasheetCellsEffe ct | Exists on the datasheet itself, handles whether special effects are used for the cells (flat, raised, or sunken are the only effects supported). | |
| DatasheetFontHei ght | Exists on the datasheet itself, this unfortunately named property specifies the font size. | |
| DatasheetFontItali c | Exists on the datasheet itself, controls whether all of the text is italic. | |
| DatasheetFontNa me | Exists on the datasheet itself, controls the name of the font. | |
| DatasheetFontUnd erline | Exists on the datasheet itself, controls whether all of the text is underlined. | |
| DatasheetFontWei ght | Exists on the datasheet itself, controls whether the text is bolded. | |
| DatasheetForeColo r | Exists on the datasheet itself, specifies the foreground color for the whole datasheet. | |
| DatasheetGridline sBehavior | Exists on the datasheet itself, controls which gridlines will be displayed (if any). | |
| DatasheetGridline sColor | Exists on the datasheet itself, specifies the color of the gridlines. | |
| FrozenColumns | Exists on the datasheet itself, specifies how many columns have been frozen by the user (discussed later in the article). | |
| ShowGrid | Exists on the datasheet itself, but has been superseded by the DatasheetGridlinesBehavior property. | |
| SubdatasheetExpa nded | Exists on the datasheet itself, specifies whether all subdatasheets should be expanded. (Access 2000 only) | |
| SubdatasheetHeig ht | Exists on the datasheet itself, specifies the number of records to display for subdatasheets (a scrollbar appears if there are more records than this property allows). (Access 2000 only) | |
| SubdatasheetNam e | Exists on the datasheet itself, specifies the name of the table's subdatasheet. (Access 2000 only) | |
| TabularCharSet | Exists on the datasheet itself, and is hidden. It specifies the font character set and can often cause bad things to happen if it's set to an incorrect value. It's best not to set it, or to set it to 1 (which uses the DEFAULT_CHARSET for the machine). | |

With the exception of the Subdatasheet properties, you have no direct design-time access to these properties: None of these properties show up in the datasheet property sheet. As a result, they can only be set at runtime from VBA code in order to make changes. Interestingly, none of the properties are exposed by ADO or ADOX, so if you want to change them, you'll have to use DAO.

While you can't access these properties through property sheets, many of them can be set in the user interface. They are, for example, what's changed when you set the font of a datasheet from the Format menu. For full control over the datasheet, though, you'll want to explicitly set the properties

in code and save the object when you're done.

It's worth noting that a datasheet is a form it says so right in the object browser. The object browser considers the datasheet columns to be the controls on the form. As a result, a datasheet can consist of any control that can be displayed, which means all TextBox, ComboBox, and CheckBox controls.

Source: https://docs.microsoft.com/en-us/previous-versions/office/developer/office-2003/aa217449(v=office.11)?redirectedfrom=MSDN

1.13. Change Hide / Show of a field on datasheet

The code to show and hide the columns is in a routine called ShowHideColumn.

1.14. Select Case (If-Then-Else)

The Microsoft Access Case statement can only be used in VBA code. It has the functionality of an IF-THEN-ELSE statement.

```
Select Case test_expression

Case condition_1
    result_1
Case condition_2
    result_2
    ...
Case condition_n
    result_n

[ Case Else
    result_else ]

End Select
```

Source: https://www.techonthenet.com/access/functions/advanced/case.php

1.15. Access columns of Combo control

Use 0 to refer to the first column, 1 to refer to the second column, and so on. Use 0 to refer to the first row, 1 to refer to the second row, and so on. For example, in a list box containing a column of customer IDs and a column of customer names, you could refer to the customer name in the second column (1) and fifth (4) row as:

If the user has made no selection when you refer to a column in a combo box or list box, the Column property setting will be Null. You can use the IsNull function to determine if a selection has been made

```
Forms!Contacts!Customers.Column(1, 4)

'*--- Empty combo selection

If IsNull(Forms!Customers!Country)

Then MsgBox "No selection."

End If
```

1.16. Set Filter on Subform from Main Form

```
'*--- lstBoxSheets is the subForm
Me.LstBoxSheets.Form.Filter = "prjCategory='General'"
Me.LstBoxSheets.Form.FilterOn = True
```

1.17. Reset query Column Order setting

So, when you open a query in Datasheet view, and the column order has not been messed with and saved, the column order displayed is determined by the OrdinalPosition and the value of that

property corresponds to the order in which your columns appear in the query design grid (OrdinalPosition is 0 based, so 0 is the first column).

Then ... when you move the column while viewing the query in Datasheet view, and subsequently save that change in the column order, Access creates the ColumnOrder property for each of the columns in the query. This property is not visible in the query design grid, but is definately there.

```
Public Sub ResetColumnOrder(strQueryName)
    Dim fld As DAO.Field
    Dim qdf As DAO.QueryDef

Set qdf = CurrentDb.QueryDefs(strQueryName)

For Each fld In qdf.Fields
    On Error Resume Next
    fld.Properties.Delete "ColumnOrder"
Next fld

End Sub
```

1.18. Open Dynaset, change SQL

1.19. Open recordset, add row

```
Dim dbCurrent As Database
Dim rsNotes As Recordset
Dim sSQL As String
    sSQL = "Select * from PrePos where PostType = 'Help';"
    Set dbCurrent = CurrentDb
    Set rsNotes = dbCurrent.OpenRecordset(sSQL, dbOpenDynaset, dbSeeChanges)
    With rsNotes
        If .EOF Then
            .AddNew
            ![PostIMMTable] = gsNewTableName
            ![PostIMMField] = gsNewFieldName
            ![PostPtype] = qsPtype
            ![Notes] = Me.txtNotes
            ![UpdatedDate] = Now()
            ![UpdatedBy] = gsUserName
            .Update
            .Close
        Fnd Tf
    End With
    Set rsNotes = Nothing
    Set dbCurrent = Nothing
```

1.20. Select Cased Statement (VBA)

```
Select Case test_expression

Case condition_1
    result_1
Case condition_2
    result_2
    ...
Case condition_n
    result_n

[ Case Else
    result_else ]
End Select
```

2. MySQL

2.1. Like with Join

```
SELECT table1.*, table2.z
FROM table1
INNER JOIN table2
ON table2.name LIKE CONCAT('%', table1.name, '%')
AND table1.year = table2.year
```

2.2. Update with Where

```
UPDATE table_name
SET column1 = value1, column2 = value2, ...
WHERE condition;
```

2.3. Count Distinct

You can use the DISTINCT clause within the COUNT function. For example, the SQL statement below returns the number of unique departments where at least one employee makes over \$55,000 / year.

```
SELECT COUNT(DISTINCT department) AS "Unique departments"
FROM employees
WHERE salary > 55000;
```

2.4. Count nulls

select sum(case when FirstName IS NULL then 1 else 0 end) as NUMBER_OF_NULL_VALUE from DemoTable;

Source: https://www.tutorialspoint.com/how-to-count-null-values-in-mysql

2.5. Add a Auto Increment column to a table

Add Auto Increment

ALTER TABLE ThreeSeasons ADD column id INT NOT NULL AUTO_INCREMENT unique first

2.6. Case (Select)

The CASE statement goes through conditions and return a value when the first condition is met (like an IF-THEN-ELSE statement). So, once a condition is true, it will stop reading and return the result.

If no conditions are true, it will return the value in the ELSE clause.

If there is no ELSE part and no conditions are true, it returns NULL.

Case

```
SELECT OrderID, Quantity,
CASE
   WHEN Quantity > 30 THEN "The quantity is greater than 30"
   WHEN Quantity = 30 THEN "The quantity is 30"
   ELSE "The quantity is under 30"
END
FROM OrderDetails;
```

3. SQL Server

3.1. Concat

```
CONCAT(string1, string2, ...., string_n)
```

3.2. Cast Number into string

```
CAST(expression AS datatype(length))
```

Table 7. Parameter Values

| Value | Description |
|------------|--|
| expression | Required. The value to convert |
| datatype | Required. The datatype to convert expression to. Can be one of the following: bigint, int, smallint, tinyint, bit, decimal, numeric, money, smallmoney, float, real, datetime, smalldatetime, char, varchar, text, nchar, nvarchar, ntext, binary, varbinary, or image |
| (Length) | Optional. The length of the resulting data type (for char, varchar, nchar, nvarchar, binary and varbinary) Technical Details |

3.3. Round

Round

```
ROUND(number, decimals, operation)
-- Round number to nearest decimal round(DIHTA.ValueIS, 0, 0)
```

Table 8. Round arguments

| Paramet er | Description |
|---------------|---|
| number | Required. The number to be rounded |
| decimals | Required. The number of decimal places to round number to |
| operation | Optional. If 0, it rounds the result to the number of decimal. If another value than 0, it truncates the result to the number of decimals. Default value is 0 |

3.4. Find string within a string

```
SELECT CHARINDEX('t', 'Customer') AS MatchPosition;
```

3.5. Create Table Select

The SELECT INTO statement copies data from one table into a new table.

```
SELECT *
INTO newtable [IN externaldb]
FROM oldtable
WHERE condition;
```

Practical Example

```
select distinct FieldName
into New_DealPathway_B2
from dbo.Pre_Migration_Guide
```

3.6. IF then else

3.7. Immediat If (IIF)

```
IIF(condition, value_if_true, value_if_false)
```

3.8. Variables

```
-- Declare a variable with a data type
DECLARE @model_year SMALLINT;
-- Set a variable to a value
SET @model_year = 2018;
-- Use variable in query
SELECT
    product_name,
    model_year,
    list_price
FROM
    production.products
WHERE
    model_year = @model_year
ORDER BY
    product_name;
-- Set Variable in query
SELECT
    @product_name = product_name,
    @list_price = list_price
FROM
    production.products
WHERE
    product_id = 100;
```

3.9. Substring (Substr)

```
SELECT
    email,
    SUBSTRING(
        email,
        CHARINDEX('@', email)+1,
        LEN(email)-CHARINDEX('@', email)
    ) domain
FROM
    sales.customers
ORDER BY
    email;
```

3.10. Update with a Join

```
UPDATE
   t1
SET
   t1.c1 = t2.c2,
   t1.c2 = expression,
   ...
FROM
   t1
   [INNER | LEFT] JOIN t2 ON join_predicate
WHERE
   where_predicate;
```

3.11. Charindex (InStr)

```
SELECT

email,

SUBSTRING(

email,

CHARINDEX('@', email)+1,

LEN(email)-CHARINDEX('@', email)

) domain

FROM

sales.customers

ORDER BY

email;
```

3.12. Len (Length) of string

```
SELECT

email,

SUBSTRING(

email,

CHARINDEX('@', email)+1,

LEN(email)-CHARINDEX('@', email)

) domain

FROM

sales.customers

ORDER BY

email;
```

3.13. Copy Table

The SELECT INTO statement copies data from one table into a new table.

```
SELECT *
INTO newtable [IN externaldb]
FROM oldtable
WHERE condition;
```

Source: https://www.w3schools.com/sql/sql_select_into.asp

https://www.w3schools.com/sql/sql_select_into.asp

3.14. Parameters in SP

Create a query torepeatedly to get the data for different sales people, you could instead parameterize the query and turn it into a stored procedure like:

```
create procedure getSalesperson
@sp varchar(25)
as
select SalesPerson, Mon, amount
from SalesData
where SalesPerson = @sp;
Go
-- Run the SP
declare @sp varchar(25)
set @sp = 'Jack'
exec getSalesperson @sp
```

https://www.mssqltips.com/sqlservertip/2981/using-parameters-for-sql-server-queries-and-stored-procedures/

4. SQLite

4.1. DSNLess ODBC connection

```
DRIVER=SQLite3 ODBC
Driver;Database=c:\mydb.db;LongNames=0;Timeout=1000;NoTXN=0;SyncPragma=NORMAL;StepAPI=
0;
-- Zortero Example
ODBC;DSN=Zotero;Database=C:\Users\{userDirectory}\Zotero\link_zotero.sqlite;StepAPI=0;
SyncPragma=OFF;NoTXN=0;Timeout=;ShortNames=0;LongNames=0;NoCreat=0;NoWCHAR=0;FKSupport=0;JournalMode=;OEMCP=0;LoadExt=;BigInt=0;JDConv=0;;TABLE=collections
```

This is some VB code to create the DSNLess Connection

```
: AttachDSNLessTable
'//Name
'//Purpose : Create a linked table to SQL Server without using a DSN
'//Parameters
        stLocalTableName: Name of the table that you are creating in the current
database
'//
       stRemoteTableName: Name of the table that you are linking to on the SQL Server
database
'//
       stServer: Name of the SQL Server that you are linking to
'//
        stDatabase: Name of the SQL Server database that you are linking to
'//
        stUsername: Name of the SQL Server user who can connect to SQL Server, leave
blank to use a Trusted Connection
       stPassword: SQL Server user password
Function AttachDSNLessTable(stLocalTableName As String, stRemoteTableName As String,
stServer As String, stDatabase As String, Optional stUsername As String, Optional
stPassword As String)
    On Error GoTo AttachDSNLessTable_Err
    Dim td As TableDef
    Dim stConnect As String
For Each td In CurrentDb.TableDefs
        If td.Name = stlocalTableName Then
            CurrentDb.TableDefs.Delete stLocalTableName
        End If
    Next
If Len(stUsername) = 0 Then
        '//Use trusted authentication if stUsername is not supplied.
        stConnect = "ODBC;DRIVER=SQL Server;SERVER=" & stServer & ";DATABASE=" &
stDatabase & ";Trusted_Connection=Yes"
   F1se
        '//WARNING: This will save the username and the password with the linked table
        stConnect = "ODBC;DRIVER=SQL Server;SERVER=" & stServer & ";DATABASE=" &
stDatabase & ";UID=" & stUsername & ";PWD=" & stPassword
    Set td = CurrentDb.CreateTableDef(stLocalTableName, dbAttachSavePWD,
stRemoteTableName, stConnect)
    CurrentDb.TableDefs.Append td
   AttachDSNLessTable = True
    Exit Function
AttachDSNLessTable Err:
AttachDSNLessTable = False
    MsgBox "AttachDSNLessTable encountered an unexpected error: " & Err.Description
End Function
```

5. Powershell

5.1. Extract x Top rows of text file

get-content input.txt|select-object -first 10 >output.txt

https://stackoverflow.com/questions/28908638/extract-only-the-first-10-lines-of-a-csv-file-in-powershell

6. Document History

Table 9. Document History

| Date | Version | Author | Description |
|------------|---------|--------|-----------------|
| 06/04/2020 | V2.1b | JHRS | Initial version |