

VBA Cheat Sheet

Workbook and Worksheets

Total Number of Rows and Columns :

No of Rows: **10,48,576** No of Columns : **16,384**

Find First Blank Space Position :

x = VBA.InStr(Sheet1.Range("a3"), " ")

Change the Domain Name of the Sheet :

ThisWorkbook.VBProject.VBComponents(ActiveSheet.CodeName).Properties("_CodeName") = "Summary_Sheet"

Select Multiple Worksheets :

Sheets(Array("Sheet1", "Sheet4", "Sheet5")).Select

Delete Multiple Worksheets :

Sheets(Array("Sheet1", "Sheet4", "Sheet5")).Delete

Delete Workbook :

Kill "FilePath\myworkbook.xlsx" ' Delete single file
Kill "YourFolderPath\" * .xl * "" ' Delete entire excel file from folder

Type of Input Box:

Application.InputBox("Enter number") '[It allow to take cell references]
VBA.InputBox("Enter number") '[Manually Enter]

Protect and Unprotect Worksheet :

Sheets("Summary").Protect Password:="abc"
Sheets("Summary").Unprotect Password:="abc"

Display and Not Display :

ActiveWindow.DisplayGridlines = False	ActiveWindow.DisplayWorkbookTabs = False
ActiveWindow.DisplayHeadings = False	ActiveWindow.DisplayHorizontalScrollBar = False
Application.DisplayFormulaBar = False	ActiveWindow.DisplayVerticalScrollBar = False
Application.DisplayFormulaBar = True	Application.DisplayFullScreen = False

Code Name of worksheet :

MsgBox Sheets("Summary").CodeName

Get Name of last worksheet and workbook:

MsgBox Sheets(Sheets.Count).Name 'name of last sheet in the workbook
MsgBox Workbooks(Workbooks.Count).Name ' name of last opened workbook

Send Email :

ActiveWorkbook.SendMail Recipients:=Array("abc@gmail.com", "xyz@gmail.com"), Subject:="Welcome", ReturnReceipt:=""

Get Full name and Path of Workbook :

MsgBox ThisWorkbook.FullName [Output—> C:\Users\RAM\desktop\abc.xlsm]
MsgBox ThisWorkbook.Path [Output—> C:\Users\RAM\desktop]

Save , SaveAs and Close of Workbook :

ThisWorkbook.Save
ThisWorkbook.SaveAs Filename:=VBA.Environ("UserProfile") & "\desktop\" & "Myworkbook2"
ThisWorkbook.Close SaveChanges:=False

Get File Name from SaveAs dialog box :

FileName = Application.GetSaveAsFilename

Dynamic Range Selection

Sheet1.Range("a1:a" & Cells(Rows.Count, 1).End(xlUp).Row).Select	' Range Selection
Sheet1.Cells(1, Columns.Count).End(xlToLeft).Column	'Get last column number
Sheet1.Cells(Rows.Count, 1).End(xlUp).Row	' Get last row number

Extract Unique Records using advance filter :

Range("a1:a" & Cells(Rows.Count, 1).End(xlUp).Row).AdvancedFilter Action:=xlFilterCopy, CopyToRange:=[k1], Unique:=True

Text to Column :

Range("A2:a9").TextToColumns Destination:=Range("e2"), DataType:=xlDelimited, Space:=True, _
FieldInfo:=Array(Array(1, 9), Array(2, 1), Array(3, 9))

Loop

Select Case Statements

```
Dim chr As String
chr = InputBox("Enter the char")
Select Case chr
    Case "A" To "L"
        MsgBox "between A and L"
    Case "M" To "T"
        MsgBox "between M and T"
    Case "U" To "Z"
        MsgBox "between U and Z"
    Case Else
        MsgBox "Wrong choice"
End Select
```

For Loop

Example-1:
For i = 1 To 20 Step 3
 MsgBox i
Next i

Example-2:
Dim j As Integer
For j = 1 To ThisWorkbook.Worksheets.Count
 MsgBox Worksheets(j).Name
Next j

Do While Loop

Example-1:
Dim i As Integer, sum As Integer
i = 10
sum = 0
Do While i >= 5
 sum = i + sum
 i = i - 1
Loop

MsgBox sum

Example-2:
Dim i As Integer, total As Integer
i = 5
total = 0
Do
 total = i + total
 i = i - 1
Loop While i >= 10
MsgBox total

Extract Number:

```
dim j as Integer

For j = 1 To Len(Range("a1"))
    If VBA.Mid(Range("a1"), j, 1) Like "[0-9]" Then
        Range("b1").Value = Range("b1").Value & VBA.Mid(Range("b1"), j, 1)
    End If
Next j
```

Text in Reverse Order

```
Dim i As Integer, MyName As String, ReverseName As String

MyName = Sheet1.Range("A2").Value
For i = 0 To VBA.Len(MyName) - 1
    ReverseName = ReverseName & VBA.Mid(MyName, Len(MyName) - i, 1)
Next i
MsgBox ReverseName
```

Do Until Loop

Example-1:
Dim i As Integer
i = 1
Do
 Cells(i, 1) = 2 * i
 i = i + 1
Loop Until i = 11

Example-2:
Dim i As Integer
i = 1
Do Until i > 10
 MsgBox i
 i = i + 1
Loop

For Each Loop

```
[a1].Select
For Each Sheet In ThisWorkbook.Worksheets
    ActiveCell = Sheet.Name
    ActiveCell.Offset(1, 0).Select
Next Sheet
```

First name , Middle name and Last name by VBA

```
full_name = Sheet3.Range("a2")
arr = VBA.Split(full_name, " ")
first_name = arr(0) 'Return the first element of array
last_name = arr(UBound(arr)) 'Return last element of array
middle_name = VBA.Mid(full_name, VBA.InStr(full_name, " "), VBA.Len(full_name) - VBA.Len(first_name & last_name))
Sheet3.Range("b2") = first_name
Sheet3.Range("c2") = Trim(middle_name)
Sheet3.Range("d2") = last_name
```

Files and Folders

Add Library		Get Special Folder Path
Add References > Microsoft Scripting Runtime or Application.VBE.ActiveVBProject.References.AddFromFile ("C:\Windows\System32\scrrun.dll")		Dim fso As New FileSystemObject WindowsFldr = fso.GetSpecialFolder(0) SystmFldr = fso.GetSpecialFolder(1) TempFldr = fso.GetSpecialFolder(2)
Loop on File and Folder	File Dialog to select Folder	
Dim fso As New FileSystemObject Dim myFile As file Dim myFolder As Folder Set myFolder = fso.GetFolder("D:\Users\RAM\Desktop\Airtel\ ' Open All Excel Files For Each myFile In myFolder.Files If fso.GetExtensionName(myFile) = "xlsx" Then Workbooks.Open myFile Else End If Next myFile	Dim FolderPath As String Dim fso As New FileSystemObject Application.FileDialog(msoFileDialogFolderPicker).Title = "Select Data Folder" Application.FileDialog(msoFileDialogFolderPicker).Show FolderPath = Application.FileDialog(msoFileDialogFolderPicker).SelectedItems(1) & "\" MsgBox FolderPath	
Check File / Folder Exist or Not		Open application using VBA
Dim fso As New FileSystemObject Dim FolderPath As String FolderPath = "C:\Users\Abhishek\Desktop\Santosh1" If fso.FolderExists(FolderPath) Then ' fso.FileExists(FilePath) MsgBox "Specified Folder is Exist in the system", vbInformation, "Folder status" fso.CreateFolder (FolderPath) Else MsgBox "Folder Doesn't Exist" End If		Call Shell("explorer.exe " & FolderPath, vbNormalFocus) ' open folder Call Shell("notepad")

Pivot Table

Dim pTable As PivotTable Dim pCache As PivotCache Dim pSheet As Worksheet Dim pDataRange As Range Dim pField As PivotField
Set pSheet = Worksheets.Add(Before:=Sheets(1)) pSheet.Name = "Summary" Set pDataRange = Sheet1.Range("a1").CurrentRegion
Set pCache = ThisWorkbook.PivotCaches.Create(SourceType:=xlDatabase, SourceData:=pDataRange) Set pTable = pCache.createpivottable(TableDestination:=pSheet.Range("a3"), TableName:="MyPivotTable1")
Set pField = pTable.PivotFields("name") pField.Orientation = xlRowField pField.Position = 1
Set pField = pTable.PivotFields("Amount") pField.Orientation = xlDataField pField.Function = xlCount pField.Name = "Total Count"
Set pField = pTable.PivotFields("year") pField.Orientation = xlPageField pField.Pivotltems("2016").Visible = False ' unselect 2016 in pivot filter
' Remove Subtotal On Error Resume Next For Each pField In PivTable.PivotFields pField.Subtotals(1) = False Next

Outlook Connectivity

Add Library / Create Object

Add References > **Microsoft Outlook 15.0 Object Library**
or
Set OutlookApp = CreateObject("Outlook.Application")
Set ObjMail = ObjOutlook.CreateItem(olMailItem)

Send Mail via Outlook

```
Dim Outlook_App As New Outlook.Application
Dim Outlook_Mail As Outlook.MaillItem

Set Outlook_App = New Outlook.Application
Set Outlook_Mail = Outlook.CreateItem(olMailItem)

With Outlook_Mail
    .To = ""
    .CC = ""
    .BCC = ""
    .Subject = "Welcome"
    .HTMLBody = "Dear Sir,<br><br> Greetings for the day. "
    '.Attachments.Add
    .Display
    .Send
End With
Set Outlook_App = Nothing
Set Outlook_Mail = Nothing
```

Send Chart on Outlook Mail Body

```
Dim Outlook_App As Object
Dim Outlook_Mail As Object
Dim chart_path As String

chart_path = Environ("userprofile") & "\\chart1.gif"
Sheet1.ChartObjects("MyChart").Chart.Export Filename:=chart_path, Filtername:="gif"

Set Outlook_App = CreateObject("Outlook.Application")
Set Outlook_Mail = Outlook_App.CreateItem(0)

With Outlook_Mail
    .to = "abc@gmail.com"
    .Subject = "Chart - Summary"
    .HTMLBody = "Hi <br> I am sending below chart.<br> <img src= "" & chart_path & "">"
    .display
End With

Kill chart_path
Set Outlook_App = Nothing
Set Outlook_Mail = Nothing
```

Chart

Create Chart

```
Dim Data_Range As Range
Dim ch As Shape
Set Data_Range = Sheet1.Range("a1").CurrentRegion

Set ch = Sheet1.Shapes.AddChart2(Style:=12, xlChartType:=xlColumn, Left:=200, Top:=0, Width:=300, Height:=200)

With ch.Chart
    .SetSourceData Data_Range
    .ChartTitle.Text = "Product Summary"
    .HasLegend = False
    .FullSeriesCollection(1).ApplyDataLabels
    .FullSeriesCollection(2).ApplyDataLabels
    .FullSeriesCollection(2).Points(1).Select
    Selection.Format.Fill.ForeColor.RGB = vbYellow
    .FullSeriesCollection(2).ChartType = xlLineStacked
    .FullSeriesCollection(2).Format.Line.ForeColor.RGB = vbBlue
    .Axes(xlValue).MajorGridlines.Delete
End With
```

Database Connectivity

Add Library / Create Object

```
Add References > Microsoft ActiveX Data Objects 2.8 Library
or
Set Conn = CreateObject("ADODB.Connection")
Set Record_set = CreateObject("ADODB.Recordset")
```

Retrieve Data From SQL Server

```
Dim Conn As New ADODB.Connection
Dim rs As New ADODB.RecordSet
Dim sql_cmd As String
```

'Open SQL Connection

```
Conn.ConnectionString = "Provider=SQLOLEDB.1;Integrated Security=SSPI;Data Source=rk-pc;Initial Catalog=rmg_master"
Conn.Open
```

'SQL Query

```
sql_cmd = "select * from client_details"
```

'Open Record Set

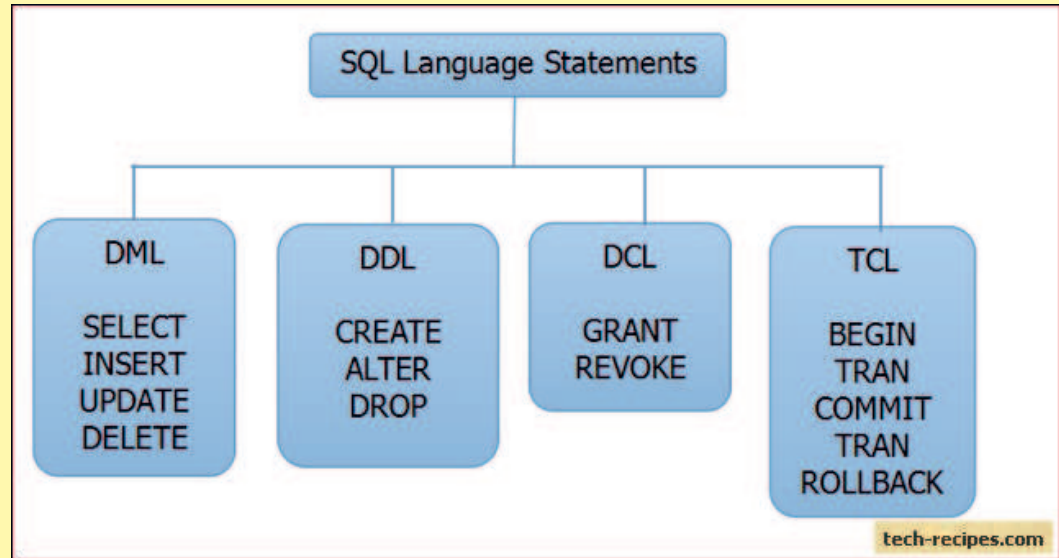
```
Set rs.ActiveConnection = Conn
rs.Open sql_cmd, Conn
```

'Header for data

```
[a1].Select
For Each i In rs.Fields
ActiveCell.Value = i.Name
ActiveCell.Offset(0, 1).Select
Next i
```

'Copy to Excel

```
ActiveSheet.Range("a2").CopyFromRecordset rs
rs.Close
Conn.Close
```



Retrieve Data From MS-Access

```
Dim conn As Object
Dim rs_data As Object
Set conn = CreateObject("ADODB.Connection")
Set rs_data = CreateObject("ADODB.RecordSet")
```

'Open MS-Access Connection

```
conn.ConnectionString = "Provider=Microsoft.ACE.OLEDB.12.0;" & _
    "Data Source=D:\VBA Interview\Database1.accdb;" & _
    "user id=; password="
conn.Open
```

'Open Record Set

```
With rs_data
.ActiveConnection = conn
.Source = "Select * from Table1"
.Open
End With
```

'Table Header

```
Sheet2.Range("a1").Select
For Each Field In rs_data.Fields
ActiveCell.Value = Field.Name
ActiveCell.Offset(0, 1).Select
Next Field
```

'Copy Data to Excel

```
Sheet2.Range("a2").CopyFromRecordset rs_data
```