Introduction to Microsoft MS Excel – Macros

Abhishek Wavhal
DA / DS Trainer Tops Technologies

Content :

WHAT IS MACROS IN EXCEL?

Why Macros :

If you have tasks in Microsoft Excel that you do repeatedly, you can record a macro to automate those tasks.

Why Macros :

Excel in itself a tool which helps users to work with worksheets & workbooks with ease.

This tool is one of the ultimate timesaver, but there are numerous events when you have to do repetitive tasks which are of a very little value but consume your precious time; yet engage you in a less productive activity, which Excel may do automatically.

Microsoft Excel macro is the feature which eliminates or at-least minimize these events which take your precious time in repetitive tasks, and you will be able to capitalize this

What is Macros :

A macro is an action or a set of
  actions that you can run as many
  times as you want.
When you create a macro, you are
  recording your mouse clicks and
  keystrokes.
After you create a macro, you can edit
  it to make minor changes to the way
  it works.

WHAT IS MACROS IN EXCEL?

Macros :

Suppose that every month, you create a report for your accounting manager.

You want to format the names of the customers with overdue accounts in red, and also apply bold formatting.
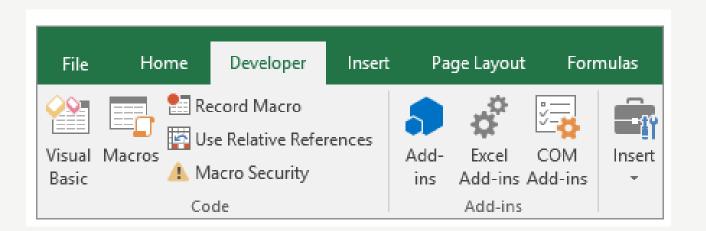
You can create and then run a macro that quickly applies these formatting changes to the cells you select.

How :

Step 1 : Before you record a macro
Macros and VBA tools can be found on the Developer tab, which
is hidden by default, so the first step is to enable it.

How :

Step 2 : In the Code group on the Developer tab, click Record Macro.

Step 3 : Optionally, enter a name for the macro in the Macro name box, enter a shortcut key in the Shortcut key box, and a description in the Description box, and then click OK to start recording.

How :

Step 4 : Perform the actions you want to automate, such as entering boilerplate text or filling down a column of data.

Step 5 : On the Developer tab, click Stop Recording.

Exercise : Create A macro that will convert this CSV file into this fine table

	A	B	C
	C8		
1	Aaradhya,Gupta,50000,30		
2	Advik,Patil,60000,35		
3	Anika,Sharma,75000,40		
4	Aryan,Desai,55000,28		
5	Dia,Patel,80000,45		
6	Ishan,Singh,65000,33		
7	Kavya,Chatterjee,70000,38		
8	Mihir,Mishra,60000,32		
9	Myra,Chopra,85000,42		
10	Navya,Rao,70000,36		
11	Parth,Shah,60000,31		
12	Prisha,Verma,55000,29		
13	Reyansh,Kumar,90000,48		
14	Saisha,Reddy,65000,34		
15	Shaurya,Gupta,75000,39		
16	Shreya,Sharma,70000,37		
17	Vihaan,Khan,80000,41		
18	Zara,Jha,60000,33		
19	Aahana,Banerjee,70000,38		
20	Advait,Chopra,65000,35		
21			

	A	B	C	D	E	F
	F2					
1						
2	Sr. No.	First Name	Last Name	Salary	Age	
3	1	Aaradhya	Gupta	50000	30	
4	2	Advik	Patil	60000	35	
5	3	Anika	Sharma	75000	40	
6	4	Aryan	Desai	55000	28	
7	5	Dia	Patel	80000	45	
8	6	Ishan	Singh	65000	33	
9	7	Kavya	Chatterjee	70000	38	
10	8	Mihir	Mishra	60000	32	
11	9	Myra	Chopra	85000	42	
12	10	Navya	Rao	70000	36	
13	11	Parth	Shah	60000	31	
14	12	Prisha	Verma	55000	29	
15	13	Reyansh	Kumar	90000	48	
16	14	Saisha	Reddy	65000	34	
17	15	Shaurya	Gupta	75000	39	
18	16	Shreya	Sharma	70000	37	
19	17	Vihaan	Khan	80000	41	
20	18	Zara	Jha	60000	33	
21	19	Aahana	Banerjee	70000	38	
22	20	Advait	Chopra	65000	35	
23						

Introduction to Visual Basic for Application :

What is Visual Basic?

Visual Basic is a language which is inherited from a very popular language BASIC. BASIC stands for Beginners All- purpose Symbolic Instruction Code. Visual Basic is called visual as you can do most of the program by click and go i.e. visually. It's an event driven & object based language.

Introduction to Visual Basic for Application :

Visual Basic for Application Visual Basic for Application is called VBA as it uses Visual Basic language and is capable of using application specific objects i.e. if we talk about VBA for Excel it can use Cell Object, Range Object, Worksheet Object, Workbook Object etc.

Exercise :

Step 1:

Order ID,Name,Product,Quantity,Price,Total	
11280,Bill Smith,Volkswagen Golf,15,30000,450000	
11281,Kennedi Singh,Toyota Yaris,10,25000,250000	
11282,Harley Fritz,Seat Panda,150,28000,4200000	
11283,Nyla Novak,Ford Focus,12,30000,360000	
11284,Ivan Hines,Vauxhall Corsa,20,30000,600000	
11285,Jonah Higgins,Volkswagen Polo,20,26000,520000	
11286,Jordan Boone,Kia Sportage,2,30000,60000	
11287,Kylee Townsend,Ford Fiesta,5,35000,175000	
11288,Nora Rollins,Seat Ibiza,80,30000,2400000	
11289,Brendan Walls,Renault Clio,100,26000,2600000	
11290,Steven Michael,Honda CR-V,20,35000,700000	
11291,Lucia Mckay,GMC Sierra,25,40000,1000000	
11292,Josue Roach,Seat Panda,10,28000,280000	
11293,Franklin Wright,Ford Focus,10,30000,300000	
11294,Denzel Flores,Vauxhall Corsa,5,30000,150000	
11295,Bruno Cordova,Volkswagen Polo,180,26000,4680000	
11296,Jaylynn Knapp,Kia Sportage,5,30000,150000	
11297,Bruce Rich,Ford Fiesta,250,35000,8750000	

1=	Convert The CSV file into Table
2=	With Text To Columns
3=	Add Discount Column
4=	Do formatting And coloring
5=	Create a Function to give Discount of 20 % if Buying Quantiy more than 20

Exercise :

Order ID	Name	Product	Quantity	Price	Total	Discount		
11280	Bill Smith	Volkswagen Golf	15	30000	450000	0		Function discount(Q , P)
11281	Kennedi Singh	Toyota Yaris	10	25000	250000	0		If Q > 20 Then
11282	Harley Fritz	Seat Panda	150	28000	4200000	840000		discount = (p / 100) * 20
11283	Nyla Novak	Ford Focus	12	30000	360000	0		
11284	Ivan Hines	Vauxhall Corsa	20	30000	600000	0		Else
11285	Jonah Higgins	Volkswagen Polo	20	26000	520000	0		discount = 0
11286	Jordan Boone	Kia Sportage	2	30000	60000	0		
11287	Kylee Townsend	Ford Fiesta	5	35000	175000	0		End If
11288	Nora Rollins	Seat Ibiza	80	30000	2400000	480000		
11289	Brendan Walls	Renault Clio	100	26000	2600000	520000		End Function
11290	Steven Michael	Honda CR-V	20	35000	700000	0		
11291	Lucia Mckay	GMC Sierra	25	40000	1000000	200000		
11292	Josue Roach	Seat Panda	10	28000	280000	0		
11293	Franklin Wright	Ford Focus	10	30000	300000	0		
11294	Denzel Flores	Vauxhall Corsa	5	30000	150000	0		
11295	Bruno Cordova	Volkswagen Polo	180	26000	4680000	936000		
11296	Jaylynn Knapp	Kia Sportage	5	30000	150000	0		
11297	Bruce Rich	Ford Fiesta	250	35000	8750000	1750000		

Conclusion:

Macros are used to automate tasks or you can use macros to develop user interfaces

Excel Macro use a language called VBA (Visual Basic for Applications), which is both Event Driven and Object Based

The easiest way to look at macro is by using the Excel's record Macro Feature

You can even edit Excel's recorded macro by yourself