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WHAT's New?



**Lookup Functions:**

**Lookup** is a useful feature in Excel that helps you find data with ease from a huge data table.

**Data tables** are collections of records organized by columns and rows (example: Company Directory, Customer List, etc.). How long will it take you to find a name from over a million of records?

Lookup functions makes this task effortless for you.

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## Trouble-free Retrieval of Data using Lookup

Lookup functions are extremely useful feature of Excel. This is utilized for small and large amount of data tables that will help you automatically find data with ease by just creating formulas.

Here is a sample of a data table:

	A	B	C	D
1	<b>Name</b>	<b>Position</b>	<b>Department</b>	<b>Local Number</b>
2	Aaron Acosta	Vice President	Secuirty	1954
3	Bernard Villar	Sales Executive	Account Management	7823
4	Mariflor Villacorta	Manager	Marketting	4578
5	Max Castillo	Purchasing Assistant	Purchasing	1493
6	Efren Evangelista	Finance Executive	Finance	5587
7	Sarah Gomez	Account Analyst	Accounting	1495
8	Peter Remulado	Employee Relation Manager	Human Resource	1479
9	Wency Tan	IT Support Specialist	IT	3254
10	Teodoro Castro	Resident Lawyer	Legal	8912
11				

Data Table 1

Notice as shown above, the data table is labelled **Name**, **Position**, **Department** and **Local Number**. This is the usual appearance of a data table. As the organization grows, so is your data table. And soon you'll have the need to extract data from the data table.

Let's say we need to know **Sarah Gomez's** Position. In our data table, that only contains 10 records, finding data is easy as looking at the illustration. But say if it contains millions of records, you have to drag and look for **Sarah Gomez** manually when you can use **VLOOKUP Functions** instead.

**VLOOKUP** looks up the data on your data table, based on finding the key in a Vertical list. The formula is:

= VLOOKUP(*lookup\_value, table\_array, col\_index\_num, [range\_lookup]*)

- *lookup\_value* is the data you want to lookup. This is the **key** stated in the description of VLOOKUP and this is the value that will be used to search in the data table. In our example the value for this is **“Sarah Gomez”**.
- *table\_array* is the range of your data table, and this is **A2:D10**. In getting the range of your data table, do not include the rows or columns of your headers.
- *col\_index\_num* is the column number where the data you want to find will come from. Here, it's column number **2**, Position column. **If you are looking for the Local Number, use column number 4.**
- *[range\_lookup]* is an optional argument. Basically what this means is “Don't rely on the list of items in the first column of the table being in alphanumeric order - check every one of them until you get an exact match”. Leaving it out is like saying “The first column of the lookup table is definitely in alphanumeric order - if you get past the search phrase in the list and it's not there, don't keep looking, and use the nearest match”. So it's always a good practice to supply **FALSE** here.

Our formula will look like this: = **VLOOKUP(“Sarah Gomez”,A2:D10,2,FALSE)**. Of course this will return **“Account Analyst”**

Now there is also HLOOKUP Function.

**HLOOKUP** looks up the data on your data table, based on finding the key in a **H**orizontal list. Say you want to know the Local Number of **Efren Evangelista** from Data Table 2 below:

	A	B	C	D	E	F	G	H	I	J
1	Name	Aaron Acosta	Bernard Villar	Mariflor Villacorta	Max Castillo	Efren Evangelista	Sarah Gomez	Peter Remulado	Wency Tan	Teodoro Castro
2	Position	Vice President	Sales Executive	Manager	Purchasing Assistant	Finance Executive	Account Analyst	Employee Relation Manager	IT Support Specialist	Resident Lawyer
3	Department	Security	Account Management	Marketing	Purchasing	Finance	Accounting	Human Resource	IT	Legal
4	Local Number	1954	7823	4578	1493	5587	1495	1479	3254	8912

Data Table 2

The formula is the same as VLOOKUP except instead of **V** its **H**. And instead of *col\_index\_num* it should be *row\_index\_num*, signifying the row number where the data you want to find will come from.

= HLOOKUP(*lookup\_value, table\_array, row\_index\_num, [range\_lookup]*)

Your formula should look like this: = **HLOOKUP(“Efren Evangelista”,B1:J4,4,FALSE)**. Of course this will return **“5587”**

*Now that you know how to use VLOOKUP and HLOOKUP, try using the LOOKUP Functions where the value you're looking for is coming from a drop-down list or another worksheet. What will your formula look like?*