The Ultimate

=VLOOKUP(

Guide

“Learn a lot beyond the conventional VLOOKUP

Hey there, Howdy?

=IF (“you are first timer at Goodly”,
   Then “a very warm welcome here”,
   Else “for all my regular folks you know I love you :D”)

It is cool to know VLOOKUP but pretty awful to just know VLOOKUP. This guide is an effort to dig deep into Vlookup + some additional lookup formulas and some awesome tricks to make you shine like an Excel Rock Star at work!

Plus I really want you to share it with everyone whom you think will benefit from it. But hey, don’t start selling it. I still have that right. Enjoy 😊

- Chandeep
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Part 1 - Setting up the basics - Vlookup & Hlookup

VLOOKUP - Assuming that you know nothing about Vlookup (although chances are that you might know something), I am going to start talking about Vlookup right from scratch by showing you this Video

In this video I’ll show you how the Vlookup works and a few dos and don’ts.. All in the English & NO jargons 😊

HLOOKUP - Now that you know that the Vlookup works vertically, if you just change its direction and make it horizontal, you get.. Yup you are correct! HLOOKUP.

Go ahead and take a look at this video and you’ll understand the difference between Vlookup and Hlookup.
Part 1 – Setting up the basics - Vlookup Tricks & Myths

5 VLOOKUP TRICKS - Well now that you know for sure that how the Vlookup thing works, you would actually feel that it was ridiculously simple. Let’s spice up the Vlookup by playing a few tricks around it..

Here are 5 crazy tricks that you can apply to your Vlookup and can handle more complex lookup scenarios..

• Trick 1 Dual Criteria lookup
• Trick 2 The Naming trick
• Trick 3 Working with Tables
• Trick 4 Negating errors in Vlookup
• Trick 5 Abandoning Vlookup

These 5 tricks are discussed in the video below..

5 Crazy VLOOKUP Tricks

Click on the play button to watch the video

FUN FACTS : These are some common myths / facts about VLOOKUP. Which ones have you come across ?

• #1 Do you know how to apply a VLOOKUP ? is one of the most asked question in the technical round of excel interview. FACT

• #2 If one knows how to apply VLOOKUP, he knows advanced Excel or he is the master of Excel – MYTH

• #3 VLOOKUP is difficult to learn – BIG MYTH

• #4 The TRUE/FALSE input at the end of VLOOKUP is the same and gives you the same result – MYTH
Part 1 - Setting up the basics - Vlookupphobia

VLOOKUPHOBIA - If you pray to God for making your Vlookup work, then you are suffering from a “curable” disease called VLOOKUPHOBIA!

I have seen many people suffering from this and they often freak out when their Vlookup does not work or throws up the #N/A! error.

If you can relate to this, Relax..! Here is how you can fix your Vlookup and save your prayers for better things in life.

I am going to share with you the 3 most common errors (and their solutions) people make while writing the Vlookup formula

• Mistake 1 – Trailing Ghost spaces in your data
• Mistake 2 – Numbers stored as Text
• Mistake 3 – Not freezing your lookup range

Read the detailed post & the solutions here - [Common Mistakes in VLOOKUP](#)

End of Part 1
ROBUST VLOOKUP - Now Vlookup is great but what I am going to cover next is how can you make your Vlookup a lot more robust and by robust I mean

- Automating your Vlookup formula so that you don’t have enter the column number manually... ever again!
- Using something called as Excel tables so that your lookup ranges expand as you enter more data

I made a short video on how to make your VLOOKUP robust. You’ll additionally learn about the MATCH function which is used in this video. Check it out..

LOOKUP LEFT - One of the other very common challenge that people face is that Vlookup does not looks up to its left.. and to sort that problem let’s dive into a new function which is indeed a powerful one

The INDEX Function in Excel – I call it the big daddy of VLOOKUP

PS: Once you have taken a look at how the index function works, you’ll be amazed by the other applications of the INDEX function. I wrote a pretty detailed post on all that INDEX has to offer you
FASTER VLOOKUP ON LARGE DATA - One of the biggest pain in our lives is that Vlookup is nearly dead if you write it on let’s say.. 50,000 rows of data.

I am sure the computer speed does matter but largely you’ll find dreaded spreadsheets when the lookup formula runs in multiple thousand rows.

The solution?? Write the same old Vlookup but a little differently and that little difference is going to bring lightening speed to your Vlookup formula.

Don’t believe me? I tried applying a Vlookup on 100k rows of data and my Vlookup finished its processing in less than a second. Yup that’s true!

The trick is to perform an approximate match Vlookup on a sorted dataset rather than an exact match Vlookup.

Here is a short video + a blog post to help you understand the exact formula I used to super charge my Vlookup and also compare the results with the usual Vlookup formula.

Click on the play button to read the blog post and watch the video.
VLOOKUP FOR SIMILAR RECORDS - One of the other reason for the buttock pain is when you have similar records in a dataset (that’s basically a messed up data source)

Imagine for a moment that the ERP at Peter Brothers is not very robust, every time a customer comes in (even if it is the same customer) the MIS guy makes a new record.

His whims led to too many similar company names and now it is impossible for Vlookup to match similar company names.

To my surprise I found that Microsoft had already thought about it and rendered a beautiful solution via an add-in called Fuzzy Lookup.

If you are in the midst of such a problem you are going to love this. The only caution, that it is not completely robust but it can solve most duplication problems.
Part 2 - Advanced Applications - multiple & unique lookup

MULTIPLE VALUES LOOKUP - The Vlookup formula is NOT cool for extracting multiple records but it works beautifully on unique records.

Although I will recommend using filter or advanced filter for extracting multiple records but what if you wanted to do it the formula way.. and probably using a lookup formula

Let’s say that you want all records of Maya to be displayed along with her (shitty) hobbies

<table>
<thead>
<tr>
<th>Search For</th>
<th>Maya</th>
</tr>
</thead>
<tbody>
<tr>
<td>Names</td>
<td>Shitty Hobbies</td>
</tr>
<tr>
<td>Maya</td>
<td>Sleeping</td>
</tr>
<tr>
<td>Chanddeep</td>
<td>Sleeping</td>
</tr>
<tr>
<td>Ron</td>
<td>Lazing</td>
</tr>
<tr>
<td>Peter</td>
<td>Sleeping</td>
</tr>
<tr>
<td>Jason</td>
<td>Stalking People</td>
</tr>
<tr>
<td>Chanddeep</td>
<td>Goofing</td>
</tr>
<tr>
<td>Bourne</td>
<td>Stalking People</td>
</tr>
<tr>
<td>Peter</td>
<td>Flirting</td>
</tr>
<tr>
<td>Maya</td>
<td>Lazing</td>
</tr>
<tr>
<td>Jackie</td>
<td>Movies</td>
</tr>
<tr>
<td>Maya</td>
<td>Goofing</td>
</tr>
<tr>
<td>Rohit</td>
<td>Facebooking</td>
</tr>
</tbody>
</table>

This is how you’ll crack this crazy nut down. Check out the formula that I have used in this Blog Post, 3rd Point

UNIQUE VALUES LOOKUP - Often we need to extract unique values from a range of data. Although to do that there is already a built in Remove Duplicates feature but it is not dynamic. I mean it won’t refresh if the data changes and moreover it deletes the records from the spreadsheet

Here is a quick formula that can remove duplicates from a range. Interestingly the post also contains a VBA method, if interested do check that out as well
Part 2 - Advanced Applications - Inverse your data

INVERSE YOUR DATA - Have you ever had a situation where you wanted to inverse the order of your data?.. If yes then this is just for YOU!

<table>
<thead>
<tr>
<th>Month</th>
<th>Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>100</td>
</tr>
<tr>
<td>Feb</td>
<td>120</td>
</tr>
<tr>
<td>Mar</td>
<td>133</td>
</tr>
<tr>
<td>Apr</td>
<td>190</td>
</tr>
<tr>
<td>May</td>
<td>176</td>
</tr>
<tr>
<td>June</td>
<td>155</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Month</th>
<th>Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>June</td>
<td>155</td>
</tr>
<tr>
<td>May</td>
<td>176</td>
</tr>
<tr>
<td>Apr</td>
<td>190</td>
</tr>
<tr>
<td>Mar</td>
<td>133</td>
</tr>
<tr>
<td>Feb</td>
<td>120</td>
</tr>
<tr>
<td>Jan</td>
<td>100</td>
</tr>
</tbody>
</table>

End of Part 2
Part 3 - Vlookup Variations - Display the last record

DISPLAY THE LAST RECORD IN THE RANGE - Another cool trick that you can do with the Vlookup formula is extract the last number from the list of numbers.

Let’s say we have this list and we want to extract the last number:

<table>
<thead>
<tr>
<th>Some Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>250.3</td>
</tr>
<tr>
<td>387.9</td>
</tr>
<tr>
<td>418.9</td>
</tr>
<tr>
<td>144.6</td>
</tr>
<tr>
<td>420.3</td>
</tr>
<tr>
<td>161.2</td>
</tr>
</tbody>
</table>

And you can do that with a simple Vlookup formula:

```
=VLOOKUP(9.99999999999999E+307,C3:C8,1)
```

Here is how the formula works:
1. It looks through the left most column.
2. If it finds the exact match, it returns that value.
3. If it finds a value that is higher than the lookup value, it returns the value in the cell above it.
4. If the lookup value is greater than all the values in the list, it returns the last value.
5. Since 9.99999999999999E+307 is the largest number that can be used in Excel, when this is used as the lookup value, it returns the last number from the list.

Note that I have omitted the last part of Vlookup (true/false) intentionally, which also means TRUE or approximate match.
Part 3 – Vlookup Variations - Vlookup using Wild Cards

VLOOKUP USING WILDCARDS - Just the way you have a joker as a trump card in the deck of cards, you have something similar as Wildcards in Excel. which is truly epic!

The cool thing about the use of Wild Cards in your Vlookup formula is that you can do approximate matches and can pull out records.

Below on the left I have price list of models and on the right I am using a part of the model’s name to extract its price.

This is done using a partial match Vlookup by the use of a wild card. Take a look at the formula used.

Notice the use of Asterisk (*) in the formula which is combined with the lookup value using the & operator
1. *4 would mean anything can come before 4
2. *4s* would mean anything can come before and after 4s
3. *Chandeep*Delhi* would mean anything can before and after the words Chandeep and Delhi, but the word Delhi comes after the word Chandeep
4. If there is duplication the formula will return the first value found.
**Part 3 - Vlookup Variations - Case sensitive Vlookup**

**CASE SENSITIVE VLOOKUPS** - At times you need a case sensitive Vlookup i.e. only if the word (lookup value) exactly matches to what you have in the data.

Below we have names and incomes and on the right I only need to pull the data for “Rohan” where the case exactly matches

<table>
<thead>
<tr>
<th>Names</th>
<th>Income</th>
<th>rohan</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rohan</td>
<td>$1,000</td>
<td>rohan</td>
<td>-</td>
</tr>
<tr>
<td>Mike</td>
<td>$1,100</td>
<td>Rohan</td>
<td>1000</td>
</tr>
<tr>
<td>Mohan</td>
<td>$1,200</td>
<td>ROHAN</td>
<td>-</td>
</tr>
<tr>
<td>Peter</td>
<td>$1,300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chandeep</td>
<td>$1,400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chad</td>
<td>$1,500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Take a look at the formula used to apply a case sensitive Vlookup

All I am doing is
1. Checking with the EXACT formula if the lookup value matches exactly with what is displayed in the table
2. If it does then I am pulling up the income
3. Else I am writing a dash (-)
Part 3 – Vlookup Variations – Picture Vlookup

PICTURE VLOOKUP - Another cool application of lookup formulas is that you can even lookup pictures/images. The only thing to keep in mind is that this trick works with INDEX & MATCH functions and formula naming.

This can be really cool if you want to display product pictures on your dashboard or any place else where pictures make sense.

I wrote a pretty detailed post on how can you look up pictures. Go take a look..

How to do a Picture VLOOKUP

![Data Base (with Names & Pictures)](image)

- Chanddeep Chhabra
- Ravi Sharma
- Shayam Kondoni
- Geeta Basara
- Sunita Malani
- Rahul Dixit
- David Guetta

![Choose the employee here](image)
IF NOT FOUND THEN LOOKUP HERE - At times Vlookup gives you an #N/A error. It simply means that the value has not been found. At times the error could be because of a mistake made while writing the Vlookup formula but other times it could be genuine i.e. that lookup value does not exist in the data set.

You can advance your Vlookup formula by wrapping it around the IFERROR function and look into the secondary dataset if the first Vlookup returns an #N/A error.

Here is how it will work. I have 2 data sets with names and grades and I want to find the grade for Chandy in either of the data sets.

<table>
<thead>
<tr>
<th>Names</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rohan</td>
<td>A</td>
</tr>
<tr>
<td>Mike</td>
<td>B</td>
</tr>
<tr>
<td>Mohan</td>
<td>C</td>
</tr>
<tr>
<td>Peter</td>
<td>B+</td>
</tr>
<tr>
<td>Chandeep</td>
<td>A+</td>
</tr>
<tr>
<td>Chad</td>
<td>B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Names</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rohan</td>
<td>A+</td>
</tr>
<tr>
<td>Mike</td>
<td>B</td>
</tr>
<tr>
<td>Mohan</td>
<td>B</td>
</tr>
<tr>
<td>Peter</td>
<td>A</td>
</tr>
<tr>
<td>Chandy</td>
<td>C</td>
</tr>
<tr>
<td>Chad</td>
<td>B</td>
</tr>
</tbody>
</table>

Take a look at the formula used:

I am wrapping the Vlookup in the IFERROR function and writing 2 Vlookups instead of one.
Thanks for reading …

I hope you enjoyed reading this short guide!

I encourage you to write to me for any excel questions or even if you would like to drop in a “hi”, here is my email

goodly.wordpress@gmail.com

Cheers & stay tuned to Goodly
Chandeep