The Beginner's Guide to Getting Hired with Excel®

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What Every Analyst Needs to Know

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Why This Ebook

Every profession has its tools. The doctor has his stethoscope, and the conductor the baton. The analyst's tool is Microsoft Excel. Excel is a fast, easy way to analyze data, the vehicle for nearly everything an analyst does.

Excel is the single most important program to and get a job as an entry-level analyst. This ebook's goal is to teach you the most important Excel skills you'll need as an analyst. I go into these tools in depth on my blog, georgejmount.com. This ebook will get you started.

What is an "Analyst"?

My definition of an analyst is any role that uses quantitative data for business insights, to "translate" numbers into plans and summaries.   In most analyst jobs, the translation tool will be Excel.

Analysts can be found in almost every department across all industries.   There are "financial analysts," "business analysts," "research analysts," and many more.   With varying day-to-day activities, the basic skills needed are similar.

Some analyst job, such as the IT-centric "programmer analyst" or "systems analyst," tend to focus more on database than spreadsheet skills.   Although these analysts use Excel, it will be more for data validation than data analysis.   Read the job description carefully and use your judgment in determining the job's nature.

My Story

This ebook is the guide I wish I'd had when applying for analyst jobs.   It is my hope that you do not make the same mistakes.

My history with Excel began in college.   I figured I could just get my degree and the employers were obligated to hire me.   I never considered that first I would need to provide something valuable to them.

A few wise professors and alumni urged me to learn Excel, saying that a job candidate without it would have little to offer employers.

Of course, I didn't listen.   Why should I learn Excel? Isn't that what workplace training is for?

Upon graduation, as a well-educated 21-year old, I had finally realized that I had little value to future employers.   And I had big questions that I didn't know how to answer. So, like a good debt-loving Millennial, I went to graduate school, for a Master's degree in finance, and the degree has served me well.   Graduate school was a big step toward building some marketable skills, specifically in Excel.   Without these skills, I would have had no chance finding a job.

I applied for dozens of jobs and even got interviews at many of them.   Although I was decent at Excel, I had little understanding of how it is used in a business setting. The two major topics covered in this ebook were hardly covered at my business school.

It was only until I developed these skills on my own that I found a job.   I first worked as an analyst at a large specialty retailer in both finance and merchandising for about a year and a half.   Then I became a business analyst at a large hospital.   I have since spent more time on Excel than on any other computer application — that includes email and the Internet.

In the past three years, I went from the clueless kid in the interview to the office "Excel nerd."

Don't just wait for a college or grad school to teach you Excel-based data analysis.   If taught at all, it is likely different from what you will use at work.   Don't confuse a college degree with adequate preparation for an analyst job.

Your school is also not likely to teach how to market and communicate your Excel skills.   To get hired as an analyst, you need to speak the language of an analyst.   That language is Excel.

Treat Excel as the tool of your trade and don't assume employers owe you the job.

What Sets this Ebook Apart?

There are a lot of Excel ebooks out there.   What makes this one different?

1. The emphasis is on the analyst.

Most Excel training guides are written either for Excel rookies who can't copy and paste or for professional Excel developers whose knowledge surpasses that of the average analyst.   They do not target the specific task of getting and succeeding in an entry-level analyst job.

I had a business school professor who liked to say that if at any point in class you asked, "How is this going to help me make money?" he could guarantee an answer. This ebook's goal is to follow that same approach. The question: "How can I use this to ace my interview and be a great analyst?"

2. Only two concepts are covered.

Most ebooks in Excel cover every formula under the sun, but in reality, you will use a small number of functions at the workplace. Well over half my work as an analyst is a combination of the two tools in this ebook, used dozens of times daily. Because these two concepts are so crucial to an analyst's work, they are also usually focal points in an interview as well.

Why Excel

Business is all about solving other people's problems. As an analyst, you want to solve your boss's problems by providing efficient, accurate data reporting. Excel is the perfect tool to accomplish these goals.

But why — what problems does it solve? And what are its weaknesses? You are going to spend the majority of your workday using this software, so you should start internalizing its pros and cons. Knowing the strengths and weaknesses of Excel makes you a better analyst and job candidate.

The Good

Excel has more strengths than weaknesses as an analyst's tool. Here are the top features.

1. It's cheap.

A copy of Excel costs about $100. No other program is as affordable with a greater variety of functions.

2. It's easy to install.

As part of the Microsoft Office suite, Excel loads easily onto any Windows PC. Compare this to the headache of downloading software from other vendors.

3. No programming knowledge necessary.

Without Excel, most of the tools discussed in this ebook could be performed only with some extreme computer coding.

4. It is versatile.

Almost anything with numbers can be done in Excel. Sales forecasting? Dashboards? Visualization? You got it! No other program can serve such a variety of data analysis needs.

5. It benefits from network effects.

This is a fancy economics term that is best explained through a real-life example. Chances are you're a Facebook user. One reason is probably that all your friends use Facebook, too. This is a "network effect." The usefulness of something increases with the number of people using it. Let's say you want to send a spreadsheet to a client or prospective employer. Are you going to send it in Lotus 1-2-3 or Excel? Chances are that your recipient uses the latter, so Excel is the winner. Excel only becomes more powerful as more people begin using it.

6. It plays well with other Office tools.

One big pain of data analysis is transferring data from one software program to another. Excel fits hand-in-glove with other Microsoft tools. From Access databases to other Excel spreadsheets, data passes to and from your spreadsheet with ease.

There is a lot to admire about Excel. This one $100 piece of software contains more data analysis power than was available to the whole Apollo 11 mission.

But use this power with caution! Excel has some downsides.

The Bad

Excel is dominant, but not invincible. Here are the three biggest downsides you should consider as an analyst.

1. Big data is getting too big for it.

Excel was set up for desktop computing. Most data sets have become so big that they must be stored on a bigger server — hence, the "big data" movement. It is very hard to load such large sets into Excel. Microsoft has made Excel more flexible toward large data sets, but there is a way to go. I guarantee you will overload some spreadsheets as an analyst. So remember to save frequently and break things apart when possible.

2. Collaboration is difficult.

On a big spreadsheet with many users, it is difficult to track changes. You can easily overwrite work, modify formulas, and change numbers. For most purposes, only one user is allowed write access to a file at a time. This means that if your boss or coworker is in the file, you can't make any changes.

3. Difficult to Detect Errors

This is the most serious Excel problem and the one we attempt to improve. Remember "Spreadsheetgate?" It turned out that a paper that had helped a team of economists win the Nobel Prize contained spreadsheet errors. If Nobel Prize winners have Excel issues, then you should be on the alert.

While Excel is great for off-the-cuff data analysis, it's really hard to follow along with calculations. One miskey, one overlooked step, and the final answer is going to be wrong. It is difficult to trace back the steps. Excel is not good for complex, multi-step calculations because there is no good way to check accuracy. Yet this is precisely what Excel has become for many analysts.

My advice is to avoid hard-coding and summations as much as possible. This ebook will show you to look up, summarize, and report data in ways that avoid error-prone hard-coding.

When reading this ebook, have these questions in mind: How can I prevent errors with this tool? And more important, how can I use this to get and succeed in a job?

Now that you understand what employers are looking for and what attitude is needed, let's learn the most important Excel skills for an entry-level analyst.

The Approach of this Ebook

It won't waste your time with functions that you will never use. It will give you actionable tips on the two most commonly used Excel tools. Really know these and you

should not have trouble convincing employers of your Excel skills.

Consider this analogy.   Have you ever heard about the handyman who could fix anything with WD-40 and duct tape?   Sure, he would need to use another tool every so often.   But these two simple, versatile tools sufficed for most problems.

Think of the analyst's job as that of spreadsheet handyman.   Most of what you need to fix things can be done with two tools.   Your duct tape is the vlookup, and your WD-40 is the PivotTable.

Duct tape is perfect for providing a steady hold between two objects.   This is just what the vlookup does.   WD-40 lubricates.   Same for the PivotTable — it loosens up your data for easier analysis.

Let's start with the duct tape — the vlookup.   This formula is loved by analysts worldwide as a quick, effective way to merge sets of data.

Vlookups

This is the most common formula you will use as an analyst.

Let's say you have a list of sales and profits by region and store number.   Your boss wants to know some of these statistics.   How are you going to retrieve this data?
You could manually search for it….   But here's why you shouldn't.

1. Human error.

When manually searching, a lot can go wrong.   You might make a typo.   Or your eyes might skip and you read the wrong line. Conclusions based on incorrect data are themselves incorrect.

2. Hard to search big data sets.

If the company has 100 stores, manually searching for a couple isn't too bad.   But what if there are thousands of stores, and you need to look up hundreds?   That would take too long.   Efficiency is a trait of a good analyst.   You're on company time!

3. Difficulty of multiple searches.

The problem with searching for results manually is that it is a hand-to-mouth approach.   What if your boss comes back and asks for a few more stores?   You must

look them all up, one at a time.

The vlookup avoids these problems. As long as you code it correctly, there cannot be errors. Once it is set up, you can "plug and chug," easily repeating the process across many data points.

Remember our duct tape analogy — the vlookup takes two sets of data, and pulls them together. Now that you understand the concept of the vlookup, let's go into the mechanics.

Vlookup: The Basics

Here is your first problem. You need to find the sales and profit for a few stores. Your first step is to hit "=" into cell G2 and write "=vlookup".

	A	B	C	D	VLOOKUP(**lookup_value**, table_array, col_index_num, [range_lookup])		J
1	Region	Store	Sales	Profit		Store	Sales	Profit
2	9	7	533	314		5	=vlookup(
3	2	97	997	252		95	
4	4	2	526	440		74	
5	4	3	559	466		
6	7	10	917	326		
7	2	17	570	361		
8	7	61	538	231		
9	8	46	937	354		

The formula probably looks like some mad scientist's incantation. So let's break down what it means. The vlookup has four components:

1. Lookup_value:
The value for which you want to find an answer.

2. Table_array:
The data source that contains your answer.

3. Col_Index_num:
The column number from your data source that contains your answer. For example, if your answer is in column C of the data source, your column number is 3.

4. Range_lookup:
This asks whether you want an absolute or approximate match in your answer. This ebook will always use "False," or absolute answers.

Give it a try in G2.

1. Lookup_value:
Cell G1.   This is the cell you want an answer for — you want to know this store's sales.

2. Table_array:
Data from cell B1 to D96.   Why not include column A?   Because the first column of your source data has to contain the field we are looking up.   If we were looking up the sales of a region, we would use column A.   But because we want store, we start with column 2.

3. Column index:
Starting with the store column, sales is column 2.

4. Range_lookup:
Again, always "False."

SUM	▾	⋮	✕ ✓	fx	=VLOOKUP(F2,B1:D96,2,FALSE)					

	A	B	C	D	E	F	G	H	I	J
1	Region	Store	Sales	Profit		Store	Sales	Profit		
2	9	7	533	314		5	=VLOOKUP			
3	2	97	997	252		95				
4	4	2	526	440		74				
5	4	3	559	466						
6	7	10	917	326						
7	2	17	570	361						
8	7	61	538	231						
9	8	46	937	354						
10	2	50	525	388						

Great first start!   You know the basics of the vlookup now.   I would encourage you to quiz yourself on this basic formula every day.   Try vlookups on different data sets you encounter.

A Better Vlookup

Enhancement 1:   Anchored Cell References

There is nothing wrong with the average vlookup you just wrote. But do you really want to be average?   The coveted analyst needs exceptional Excel skills, with accuracy and efficiency.   How can we make the vlookup even more accurate and efficient?   Here are the top tricks I have learned.

Our example has a few more figures to pull: the sales for a couple more stores, as well as all three stores' profits.

Ideally, you can just drop-and-drag your formula across all these cells.   Let's first try to drag the formula down Column G.   We see an error in Cell G4.   What's happening? Place your cursor inside the cell and hit F2 to get an interactive look at your formula.

SUM			fx	=VLOOKUP(F4,B3:D98,2,FALSE)				
	A	B	C	D	E	F	G	H
1	Region	Store	Sales	Profit		Store	Sales	Profit
2	9	7	533	314		5	534	387
3	2	97	997	252		95	581	253
4	4	2	526	440		7	2,FALSE)	#N/A
5	4	3	559	466				
6	7	10	917	326				
7	2	17	570	361				
8	7	61	538	231				
9	8	46	937	354				
10	2	50	525	388				

But store 7's values are outside your lookup table.   Your instinct might be to write a new vlookup with this new table array.   Fortunately, there is a more efficient solution.

Cell anchoring lets you drag all across Excel without changing the cell reference. To check that cell anchoring is on, go to your table array cell reference and hit F4.   Dollar signs should appear in your formula.   If you do not see a dollar sign, press the Function

Lock command on your keyboard.

We are going to modify our table array to prevent these errors.   Delete all the table array data, and then drop-and-drag right over columns B-D.

	=VLOOKUP(F2,$B:$D,2,FALSE)						
	A	B	C	D	E	F	G	H

	A	B	C	D	E	F	G	H
1	Region	Store	Sales	Profit		Store	Sales	Profit
2	9	7	533	314		5	=VLOOKUF	387
3	2	97	997	252		95	581	253
4	4	2	526	440		74	616	423
5	4	3	559	466				
6	7	10	917	326				
7	2	17	570	361				
8	7	61	538	231				
9	8	46	937	354				

Your table array is now anything that is put into columns B-D.   In addition, the cell anchoring will ensure that your cell references do not move around when you copy and paste.   You will never miss data now!

Note: Using an entire column as your data source for a vlookup is a new feature of Excel.   It will work only for Excel files in the .xlsx format.   This will sometimes also affect .xlsx files that were converted from .xls.   .Xls-formatted files do not have the capacity to run vlookups off an entire column.

Now that we can move the formula down rows without an issue, let's try across columns.   We are going to look up the profits.   Drop-and-drag your formula over a column.

We have a problem.   But don't panic!   The "hired with Excel" analyst can sort it out in a minute.

Let's check our cell references — the first thing a good analyst does.   Run through each of the four criteria in the vlookup and notice which are wrong.   (Hint: two of them.).

	A	B	C	D	E	F	G	H	I
						fx	=VLOOKUP(G2,$B:$D,2,FALSE)		
1	Region	Store	Sales	Profit		Store	Sales	Profit	
2	9	7	533	314		5	534	=VLOOKUP	
3	2	97	997	252		95	581	#N/A	
4	4	2	526	440		74	616	#N/A	
5	4	3	559	466					
6	7	10	917	326					
7	2	17	570	361					
8	7	61	538	231					
9	8	46	937	354					

Let's start with the easier of the two: your column reference is going over two columns to look up the sales, but you want it to go over three columns.   You know how to fix this — just change the ,2, in your formula to a ,3,.

The second fix is a little more involved.   The first part of your vlookup, the lookup value, has shifted over a column.   You are now looking up profits based on the sales of a store, rather than the store number.

Similar to our switch in the data array reference to full columns, anchored cells work here, too.   Both full and partial cell anchors exist in Excel.   You can anchor the column reference, the row reference, or both.   Column references were the only option when referring to columns.   We want column references for the lookup value, as well.

Why?   We want to drag our formula freely down rows while using the same column reference.   This means we want to anchor our column, not the rows.

To do this, hit F4 three times.   The only dollar sign now should be the first value in your vlookup.

	SUM	▾	⋮	✕	✓	*fx*	=VLOOKUP($F2,$B:$D,3,FALSE)		

	A	B	C	D	E	F	G	H	I
1	Region	Store	Sales	Profit		Store	Sales	Profit	
2	9	7	533	314		5		534	=VLOOKUI
3	2	97	997	252		95		581	253
4	4	2	526	440		74		616	423
5	4	3	559	466					
6	7	10	917	326					
7	2	17	570	361					
8	7	61	538	231					
9	8	46	937	354					
10	2	50	525	388					

Enhancement 2:   IFERROR

You have a pretty slick vlookup now.   You are adding to the efficiency and the accuracy of your work.   Bosses will notice.   It is time to put the cap on your vlookup modification.

A good analyst expects the unexpected in data.   When writing a vlookup to get data, assume something will go wrong.   Let's look how to prevent one of the most common vlookup headaches — a missing data point.

Your boss has asked you to look up numbers on a new store, Number 26.   Easy enough.   Just put 26 into Cell F6 and drag your vlookups down.   Wait — that didn't work?   Didn't we adjust for all the inadequacies of a simple vlookup?

	SUM	▾	⋮	✕	✓	*fx*	=VLOOKUP($F5,$B:$D,2,FALSE)		

	A	B	C	D	E	F	G	H	I
1	Region	Store	Sales	Profit		Store	Sales	Profit	
2	9	7	533	314		5	534	387	
3	2	97	997	252		95	581	253	
4	4	2	526	440		74	616	423	
5	4	3	559	466		26	=VLOOKUI	#N/A	
6	7	10	917	326					
7	2	17	570	361					
8	7	61	538	231					
9	8	46	937	354					
10	2	50	525	388					

Check your work again -- carefully.   The good data analyst questions every input. Your cell references are rock-solid, so there has to be an issue in the source data.   Check

Column B. Store 26 doesn't exist!   Apparently, the store was closed.

Now you have a nasty-looking error in your spreadsheet.   You might think to just hard-code or key a zero over the error, or leave the cell blank.   Do NOT do this. Inconsistent formulas across cells will cause confusion and error.

How can we avoid hard-coding, yet still get an appropriate vlookup answer?

Welcome to the IFERROR formula.

This is how it works: If your formula doesn't return an error, run it.   If it does return an error, do something else.

In our case, we want to use a vlookup only if it returns no errors.   If there is an error, we want a 0.   This works because the store's sales are 0 if it is closed.

Type =IFERROR(into the keypad.

SUM	▾	⋮	✕ ✓	*fx*	=IFERROR(		
	A	B	C	D	IFERROR(**value**, value_if_error)	G	H
1	Region	Store	Sales	Profit		Store	Sales	Profit
2	9	7	533	314		5	RROR(	
3	2	97	997	252		95		
4	4	2	526	440		74		
5	4	3	559	466		65		
6	7	10	917	326		26		

You will see =IFERROR(value,value_if_error).   Let's break down this formula.

Value: This is the vlookup part.   You know how to write this…go ahead and do so.

Value_if_error: This part is simple — 0.   You want to return a 0 for any vlookups that return an error.

Apply your formula to your data.   Notice that Store 26 now returns 0's instead of #N/A's.

	=IFERROR(VLOOKUP($F6,$B:$D,2,FALSE),0)

	A	B	C	D	E	F	G	H
1	Region	Store	Sales	Profit		Store	Sales	Profit
2	9	7	533	314		5	534	387
3	2	97	997	252		95	581	253
4	4	2	526	440		74	616	423
5	4	3	559	466		65	537	733
6	7	10	917	326		26	=IFERROR(	0
7	2	17	570	361				

Vlookup Conclusion

Look at you, savvy business analyst!   You have built an error-proof vlookup.   You can drop and drag the formula across your spreadsheets and never return an error.   The less time spent troubleshooting formulas in Excel, the better.

I cover even more vlookup tips and tricks on my blog, georgejmount.com. This formula is the analyst's best friend – learn it well!

PivotTables

You probably didn't expect etymology in this ebook, but it here goes.   When I probably should have been learning Excel in high school, I took a Greek class instead.

I haven't used my Greek a lot, but one area where I have improved is etymology, the study of a word's origins.   Let's take a key word of the ebook: "analysis."   This is a Greek word.   What does it mean?

Think of the word's opposite: "synthesis."   It comes from "syn," meaning "together" and "thesis," meaning "place."   "Synthesis" is the putting together of things. "Analysis," then, is the breaking apart of things.

This describes the analyst's role well.   An analyst does a lot of data manipulation, breaking apart data to explore hidden relationships.   Within Excel, the PivotTable is perhaps the best way to do this.

Back to our analogy to WD-40.   Have you ever had a lock that just wouldn't turn?

Spray some WD-40 on it and it moves.   This is how I see PivotTables.   Insights "stuck" in the data, and the PivotTable will let you spin the data to find them.

   PivotTables should be your primary source of reporting in Excel.   The majority of reports at an office are inconsistently calculated and formatted.   For example, new rows are added but do not figure into the grand total.   Or the column labels are hard to read. PivotTables do all this "housekeeping" work so that you can focus on the data analysis.

   Best of all, the PivotTable is infinitely flexible.

   Remarkably, this is a tool that I never used until I got into the workforce.   Master the PivotTable now and employers will notice.

PivotTable Data Preparation

   We will start with a set of sales and profit by region, store, and quarter.   Follow these rules to turn the data set into a PivotTable.

   At an office, spreadsheets are formatted every which way.   But they must be set up a specific way to use a PivotTable.   Here are the Excel practices to avoid when setting up a PivotTable.

1. Blank column labels.

   You will often see a blank column inserted between sets of data, usually for formatting purposes.   PivotTables require that all columns be labelled.   The easiest way to do this is to delete blank rows.   If you must keep the column, then you'll need to label it. I suggest using an "X" to remind you that this field is not to be used in the PivotTable.

2. Blank attributes.

Many spreadsheets will list an attribute once, then leave it blank for following rows. For example, in our spreadsheet, only the first sale for each quarter is marked. The following are blank, implying it is the same quarter. You will need to fill out these blank spaces in the PivotTable, or the data will not be recognized as a Q1 sale.

|	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Quarter	Region	District	Sales	Profit				Quarter	Region	District	Sales	Profit	
2	1	1	18	761	498				1	1	18	761	498	
3									1					
4									1					
5									1					
6									1					
7									1					
8									1					
9									1					
10									1					
11									1					
12	2								2					
13									2					
14									2					
15									2					
16									2					
17									2					
18		4	15	560	475				2	4	15	560	475	
19		3	30	959	378				2	3	30	959	378	
20		2	22	581	210				2	2	22	581	210	

You can now turn this data source into a PivotTable. To do so, move your cursor anywhere inside the data. Then, from the Home Ribbon, go to Insert — PivotTable.

You will get a dialogue box that looks like this:
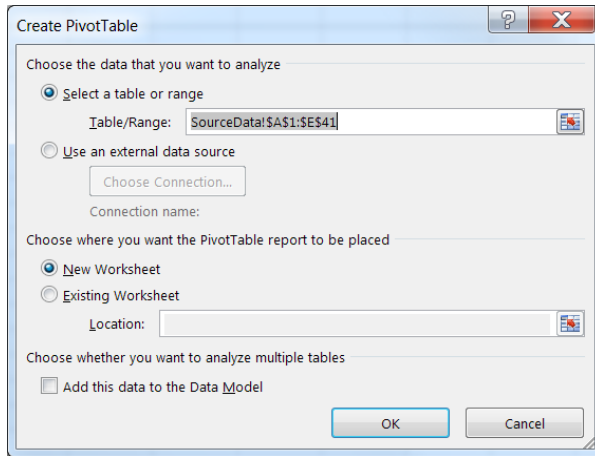
Excel will automatically assign the PivotTable's range to be your data set. That's great — for the average analyst. But you're the savvy, forward-looking analyst. What if you need to add more data later? Then the range will not cover your new data. Similar to our vlookup trick, we will name our range to be the entire column. This way new data will always be within the range of the PivotTable.

To do this, put your cursor on the "Table/Range" dialogue box. Delete its contents. Then start with your mouse right on the top of the first column. Drop and drag to capture all the columns of your source data. Click OK.
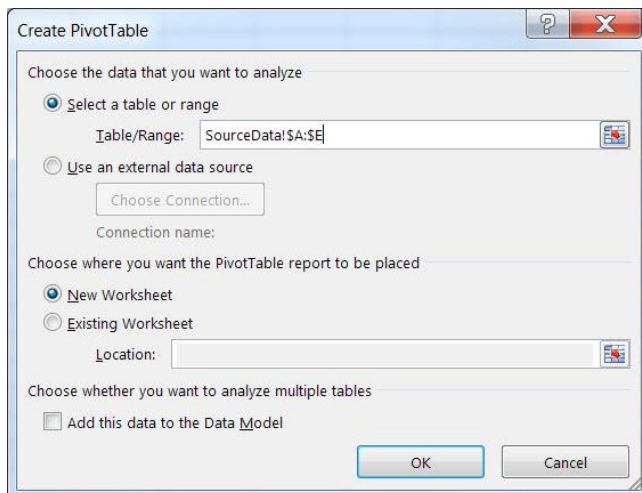
Using the columns as your data range, you will never miss out on new data. Not picking up all the relevant data in your PivotTable is a classic analyst mistake. I am speaking from experience.

Anatomy of a PivotTable

After inserting the PivotTable into a new worksheet, you should see something like below. A PivotTable is template on the left side of your screen, and a PivotTable Fields box is on the right.
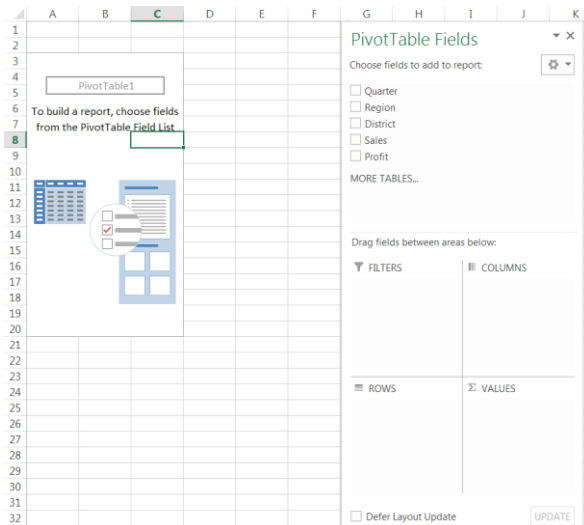
You have a blank slate, a clean PivotTable. What's great about PivotTable is that you can make pretty much any attribute into any one of features. It has Filters, Columns, Rows, and Values. Drop your attribute from the top of the field box into any four of these fields.

1. Filters:

This will filter your data by any attribute you desire. We are going to use the filter to select only Quarter 1 data.

2. Rows:

These are data attributes that you want listed sideways on the report. Select Region and District.

3. Columns:

These are the attributes to list at the top.   PivotTables will only fit 256 fields onto the column header.   Believe it or not, many of your real-life projects will exceed this count. For this reason, I usually do not use columns as a field for attributes.

4. Values:

This is the meat of your data — the actual values.   Drop in both sales and profit.

You should have something like this.

	A	B	C	D
1	Quarter	1	⌁	
2				
3	Row Labels ▾	Count of Sales	Count of Profit	
4	⊟1	2	2	
5	16	1	1	
6	18	1	1	
7	⊟2	2	2	
8	22	1	1	
9	34	1	1	
10	⊟3	2	2	
11	30	1	1	
12	39	1	1	
13	⊟4	2	2	
14	15	1	1	
15	17	1	1	
16	⊟5	2	2	
17	13	1	1	
18	14	1	1	
19	Grand Total	10	10	
20				

Looks pretty, right?   One of my favorite things about PivotTable is that you don't need to do any formatting.   But are the numbers right?   You know that the sales and profit do not both equal 10.   What's going on?   Check the column label.   It is *counting* your values, not adding them.

For some reason, Excel defaults to counting values in a PivotTable.   I rarely if ever use this feature.   Usually, analysts work with sums of data.   Let's see how to switch the value into a sum.

Switch over the sales value to sum and do the same for profit.   Double-click on your column label where it says "Count of Sales."   The below dialogue box comes up.
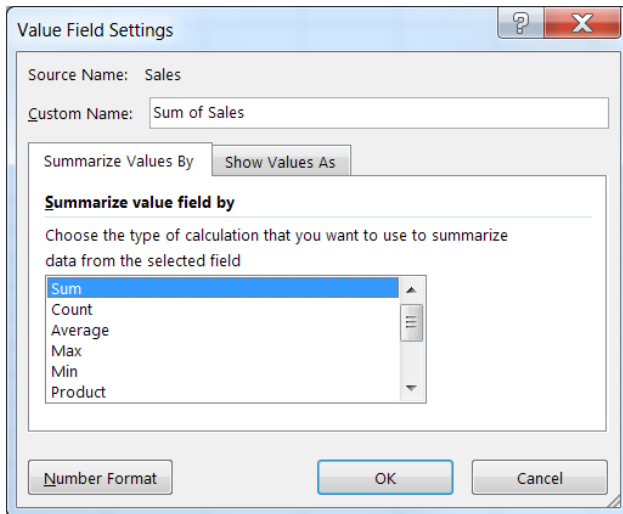
There are many ways to summarize your values in a PivotTable — average, maximum, etc.   We are going to look at sum.   Click on sum.

While we're here, let's format our values too.   At the lower-left you will see "Number Format."   Click on that, then move to format these values as currency with no decimal places (shown below).
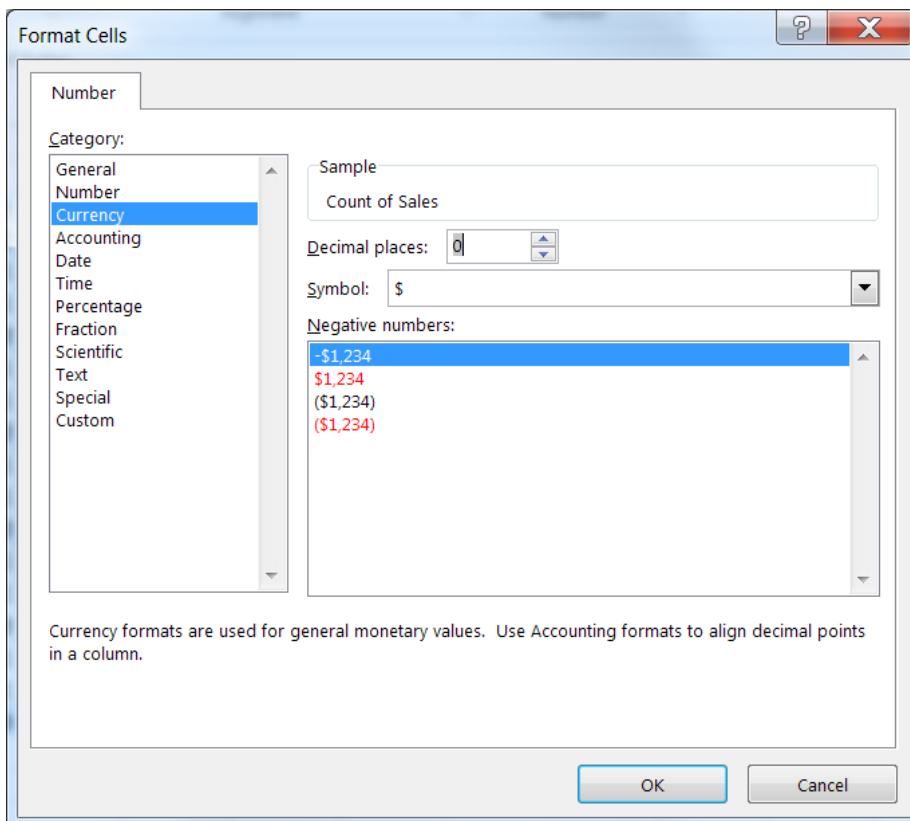
Now your sales are summed, not counted.   Do the same for profits.

This looks more useful, right?

	A	B	C	D
1	Quarter	1	⊽	
2				
3	Row Labels ⊽	Sum of Sales	Sum of Profit	
4	⊟1	$1,537	$980	
5	16	$776	$482	
6	18	$761	$498	
7	⊟2	$1,367	$656	
8	22	$849	$224	
9	34	$518	$432	
10	⊟3	$1,643	$578	
11	30	$782	$373	
12	39	$861	$205	
13	⊟4	$1,529	$796	
14	15	$556	$449	
15	17	$973	$347	
16	⊟5	$1,564	$685	
17	13	$890	$288	
18	14	$674	$397	
19	Grand Total	$7,640	$3,695	
20				

You've got the basics — congratulations!   Now let's build a super PivotTable.

A Better PivotTable

Your PivotTable is looking good!   Let's make a few adjustments to supercharge it. You may be asking, why all the tweaks?   We are modifying the PivotTable for the reasons we tweaked our vlookup formula.   These are "analyst-optimized" settings. They set you apart and make your data analysis that much better than the other guy's. Out of the box, Excel does a pretty good job formatting the PivotTable.   But if you just put a couple of extra steps into it, you get extraordinary returns.   Below is our current PivotTable.   Let's pick out a few issues.

Microsoft has made a lot of improvements in newer versions of Excel.   The new PivotTable display is not one of them.   Notice how Region and District are not labelled on your PivotTable.   It is confusing to read.   Aren't your eyes skipping?   What region belongs to what district?   And why is the subtotal at the top of the field — don't most people look for a total at the bottom?
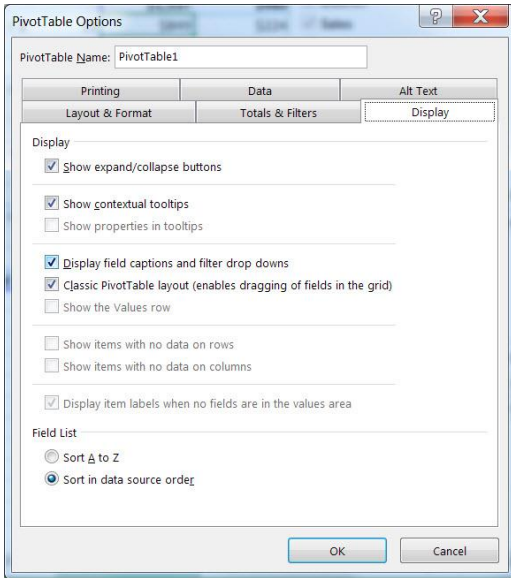
When you are doing rapid-fire data analysis, you don't want your eyes tripping over this odd formatting.   Let's fix it.

Right-click inside your PivotTable and select "PivotTable Options."   A dialogue box will appear.   Go to the Display Tab and check on "Classic PivotTable Layout."

Classic view is so much better. Notice how instead of collapsing the Region and District into one column, they are split out.   Also see how the subtotals are at the bottom, not the top.   This is a much more intuitive way of reading data.

	A	B	C	D	E
1	Quarter	1			
2					
3			Values		
4	**Region**	**District**	**Sum of Sales**	**Sum of Profit**	
5		1	16	$776	$482
6			18	$761	$498
7	**1 Total**			**$1,537**	**$980**
8		2	22	$849	$224
9			34	$518	$432
10	**2 Total**			**$1,367**	**$656**
11		3	30	$782	$373
12			39	$861	$205
13	**3 Total**			**$1,643**	**$578**
14		4	15	$556	$449
15			17	$973	$347
16	**4 Total**			**$1,529**	**$796**
17		5	13	$890	$288
18			14	$674	$397
19	**5 Total**			**$1,564**	**$685**
20	**Grand Total**			**$7,640**	**$3,695**
21					
22					

Speaking of skipping eyes, I don't know about you, but I wish the labels on Region repeated on each line.   Wouldn't it be that much easier to read if each line had its own complete labelling?

To do this, right-click anywhere in the Region column and select "Field Settings." Click to "Layout & Print" in dialogue box that appears.   Check on "Repeat Item labels."
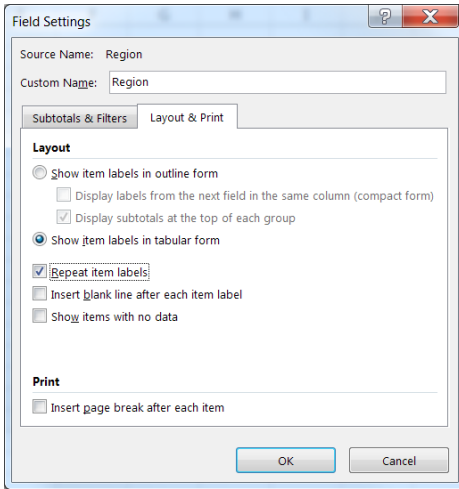
Here is your finished product.   Notice how much easier it is to read through your data this way.   This is going to save time for your boss — and wear on your eyes!

	A	B	C	D	E	F
1	Quarter	1	⏷			
2						
3			**Values**			
4	**Region** ⏷	**District** ⏷	**Sum of Sales**	**Sum of Profit**	**Margin**	
5		⊟1	16	$776	$482	62.1%
6		1	18	$761	$498	65.4%
7	**1 Total**			**$1,537**	**$980**	**63.8%**
8		⊟2	22	$849	$224	26.4%
9		2	34	$518	$432	83.4%
10	**2 Total**			**$1,367**	**$656**	**48.0%**
11		⊟3	30	$782	$373	47.7%
12		3	39	$861	$205	23.8%
13	**3 Total**			**$1,643**	**$578**	**35.2%**
14		⊟4	15	$556	$449	80.8%
15		4	17	$973	$347	35.7%
16	**4 Total**			**$1,529**	**$796**	**52.1%**
17		⊟5	13	$890	$288	32.4%
18		5	14	$674	$397	58.9%
19	**5 Total**			**$1,564**	**$685**	**43.8%**
20	**Grand Total**			**$7,640**	**$3,695**	**48.4%**
21						

Conclusion to PivotTables

PivotTables are extremely powerful.   Think of all the ways you can play with your data.   Just like the handyman reaching for WD-40 when he needs to grease a bearing, you can use a PivotTable to move your data around and discover relationships.

There's a lot more you can do with this feature. Check out my blog, georgejmount.com, for more PivotTable tricks.

Conclusion

Show your skills

You have the foundations to get hired as an analyst. But to be a great analyst, you can't stop learning. There is always a new feature in Excel to try. Visit my blog at georgejmount.com for Excel and other analyst-related content.

About the Author

George Mount started using Excel for work in 2012.   Since then he has served in various retail and healthcare roles in his hometown of Cleveland, OH.

He holds a bachelor's in economics, *magna cum laude*, from Hillsdale College and a master's in finance from Case Western Reserve University.   George also has a certificate in business analytics from the Kelley School of Business at Indiana University.   He is also certified as an Excel Advanced End-User by Indiana University's IT Training.

When not discussing analyst-related Excel topics, he enjoys playing the violin and the guitar and exploring cultural offerings across Northeast Ohio.

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