



# Excel 3 Class Guide

Instructor: Susan Jerger

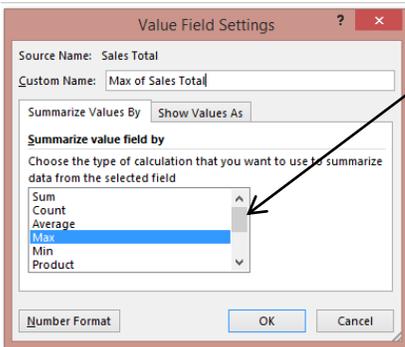
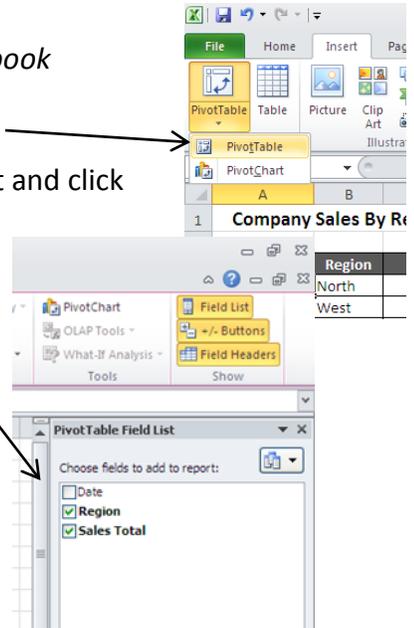
## Part 1: PivotTables

### 1.1 PivotTable Basics

**PivotTable** = A feature that enables you to summarize and analyze data in lists and tables. Pivot tables are called such because you can quickly rearrange the position of pivot table fields to give you a different view of the table (from <http://www.cs.rtu.lv/PharePub/Microsoft%20Access%2097%20Quick%20Reference/htm/ch09.htm>).

**Exercise 1:** Use the PivotTable worksheet in the Excel3ClassSpreadsheets workbook

- Place the cell pointer somewhere in the sales table.
- Click on **Insert** on the Ribbon and then choose **PivotTable** → **PivotTable**.
- The Create PivotTable window pops up. Verify that the Range is correct and click **OK**.
- The PivotTable Field List should appear on the right. Choose **Region** (as Rows) and **Sales Total** (as Values).



- Take out **Region** and add in **Salesperson**. Change value to the **Max of Sales Total**. If you ever click off of the PivotTable, you can always get the PivotTable Tools tabs to appear by clicking back on the table.
- If you update data in your data range, you may need to Refresh your PivotTable by clicking on **Refresh** on the **Analyze Tools** tab.

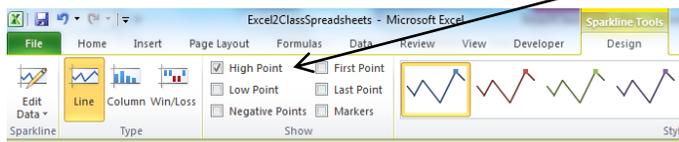
## Part 2: Sparklines

### 2.1 Sparklines

Sparklines (new in Excel 2010) are tiny charts that can show data trends very easily. Here is how they work:

**Exercise 2:** Using the Sparklines sheet...

- Go to Cell **G4** and click on the **Insert** tab.
- Choose to add **Lines** from the Sparklines group.
- Select **B4 to E4** as your range and click **OK**.
- Use Autofill to copy the sparkline into cells **G5-G8**.
- Click on the **Sparkline Tools Design** tab to mark the **High Point**.



## Part 3: vLOOKUP Function

### 3.1 vLOOKUP

The “v” in vLOOKUP stands for vertical. You can use this function to look up a value in a predefined range and return a corresponding value. Here is the syntax:

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

From <http://office.microsoft.com/en-us/excel-help/vlookup-function-HP010343011.aspx>:

**lookup\_value** – Required. The value to search in the first column of the table or range. The lookup\_value argument can be a value or a reference. If the value you supply for the lookup\_value argument is smaller than the smallest value in the first column of the table\_array argument, VLOOKUP returns the #N/A error value.

**table\_array** – Required. The range of cells that contains the data. You can use a reference to a range (for example, A2:D8), or a range name. The values in the first column of table\_array are the values searched bylookup\_value. These values can be text, numbers, or logical values. Uppercase and lowercase text are equivalent.

**col\_index\_num** - Required. The column number in the table\_array argument from which the matching value must be returned. A col\_index\_num argument of 1 returns the value in the first column in table\_array; acol\_index\_num of 2 returns the value in the second column in table\_array, and so on.

**range\_lookup** – Optional. A logical value that specifies whether you want VLOOKUP to find an exact match (FALSE) or an approximate match (TRUE):

If range\_lookup is either TRUE or is omitted, an exact *or* approximate match is returned. If an exact match is not found, the next largest value that is less than lookup\_value is returned. This works best if values are in ascending order.

**Exercise 3:** *On the vLookup spreadsheet in the Excel3ClassSpreadsheets workbook...*

- Go to **B3** and use the =max() function to determine the maximum share price (cells A7-A42)
  - Adjust formatting to a number with 5 decimal places.
- Go to **B4** and use the vlookup function to return the maximum share price’s date:  
 =vlookup(B3,A7:B42,2,FALSE)
- Format **B4** for short date if it’s not already set that way.

**Exercise 4:** *Still on the vLookup spreadsheet...*

Say you don’t really care about having the maximum price listed at the top...you only care about seeing the max price DATE. How can you get rid of row 3? *Hint: You can nest functions inside of each other but only use 1 “=”.*

**SPOILER ALERT!** *(with the old Row 3 cleared)*

=vlookup(max(a7:a42),A7:B42,2,FALSE)

Now you can delete Row 3.

**Note:** if your data is set-up horizontally you can use the HLOOKUP function.

## Part 4: Name That Cell/Those Cells

### 4.1 Naming

You can name a cell or a group of cells in your spreadsheet which can facilitate using functions.

**Exercise 5:** On the vLookup spreadsheet...

- Highlight **A7 to A42**.
- Go to the Name box (to the left of the Formula Bar) and type **SharePrices**.
- Now change all function references for A7:A42 to **SharePrices**.

Not sure what's been named on a spreadsheet? You can see on the named areas by going to the **Formulas tab** and clicking on **Name Manager**.

## Part 5: Manipulating Sheets

### 5.1 Inserting, Renaming, and Linking

#### Insert a Sheet

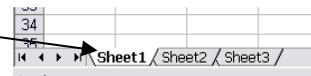
- Click on **Insert** → **Insert Sheet** (you can click and drag worksheets into whatever order you prefer).
- OR click on the Insert Sheet button near the tabs at the bottom



#### Renaming Sheets

You can change the generic sheet names "Sheet1, Sheet2, etc." to something more meaningful:

- *Right-clicking* on the current sheet name.
- Select **Rename**.
- Type in the new name and hit **Enter**.



#### Moving Sheets

You can easily rearrange your sheets by clicking & dragging the sheet tab to the desired location

#### Link Sheets

It can be helpful to connect different sheets in order to perform calculations or compare data

- Click on the blank cell you want to link.
- Type = and click on the worksheet that has the cell you want to copy.
- Click on the cell you want to link and press **Enter**.

#### Toggle Between Sheets

Since you can have numerous sheets it can sometimes be hard to view the tabs all at once or just to get to the next one in line. You can toggle using the keyboard shortcuts: **CTRL+Page Up** and **CTRL+Page Down**.

**Exercise 6:** Open the *Salesfor2008.xlsx* workbook file for this exercise.

- Insert a new worksheet and rename it **1<sup>st</sup> Quarter Sales**
- Reorder the worksheets so that they are in chronological order but with **1<sup>st</sup> Quarter Sales** first.
- Create the table below on the new sheet:

	A	B	C	D	E	F
1	<b>1st Quarter Sales</b>					
2						
3		Blue	Brown	Green	Red	Total
4	January					
5	February					
6	March					
7	Total					

- Link the sales figures for each month into the correct cell on the 1<sup>st</sup> Quarter Sales sheet.  
 For instance: **1.** Click on 1<sup>st</sup> Quarter Sales' cell **B4** and type =. Go to January's sheet and click on Cell **B4** and press **Enter**.  
**2.** Click on 1<sup>st</sup> Quarter Sales' cell **B5** and type =. Go to February's sheet and click on cell **B4** and press **Enter**.
- Use **AutoSum** to tally all the color totals and all the monthly totals for the quarter. When you're all finished, it should look something like this:

<b>1st Quarter Sales</b>					
	Blue	Brown	Green	Red	Total
<b>January</b>	\$ 1,999.00	\$567.00	\$ 2,467.00	\$ 67.00	\$ 5,100.00
<b>February</b>	\$ 5,678.00	\$ 34.00	\$ 5,788.00	\$ 67.00	\$ 11,567.00
<b>March</b>	\$ 5,699.00	\$ 34.00	\$ 5,788.00	\$ 134.00	\$ 11,655.00
<b>Total</b>	\$ 13,376.00	\$ 635.00	\$ 14,043.00	\$ 268.00	\$ 28,322.00

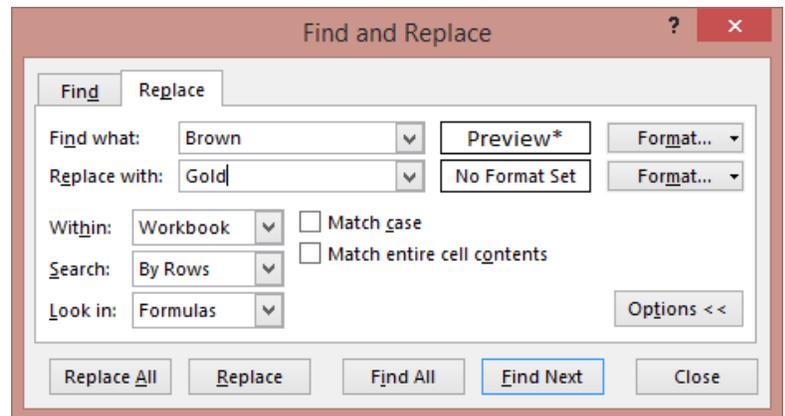
## Part 5: Find & Replace Almost Anything

### 5.1 Find and Replace

You can pull up the Find and Replace window in Excel by typing **CTRL+F**. Can't remember where you typed something? Do a Find for it within a worksheet or the entire workbook. Need to replace some information? Do a Find and Replace (again within the worksheet or the entire workbook).

#### Exercise 7: Still in the Salesfor2008 file...

- Type **CTRL+F** and click on the **Replace** tab
- Find all the instances of the word Brown and Replace them with the word Gold.
- Save the file.



## Part 6: Macros

### 6.1 Creating a Macro

A macro is a recording of tasks...a way to automate repetitive tasks in your workbook.

Excel macros are written in Excel VBA (Visual Basic for Applications). For simple macros you don't actually need to know Excel VBA.

Since macros involve coding, a file with macros need to be saved as "Excel Macro-Enabled Workbook" for the macros to work later on.

And, also since macros involve coding, they can be used to spread malicious codes so only run macros

from people you trust.

The macro tools are on the Developer tab which doesn't always show up by default in Excel 2010. To see it, click on **File** → **Options** → **Customize Ribbon** → check **Developer** on the right. Click **OK**.

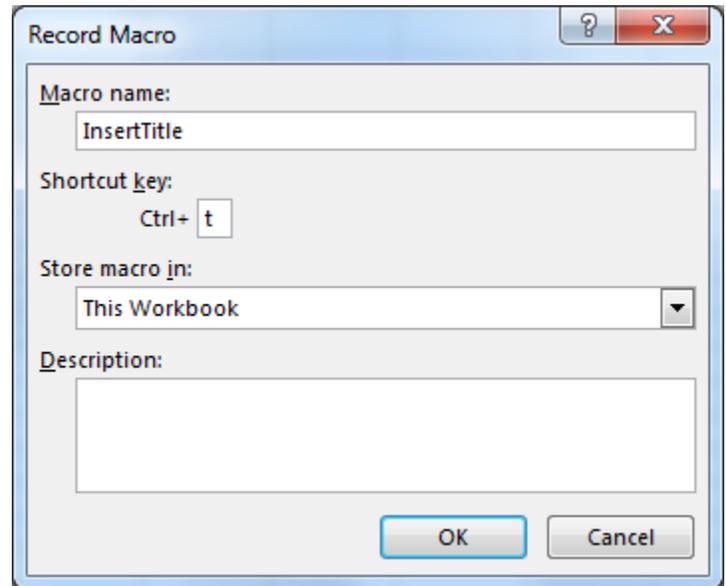
**Exercise 8:** *Still in the SalesFor2008 workbook*

We are going to create a macro to automatically put in a line of text at the top of a sheet.

- Go to the **1st Quarter Sales** sheet.
- Click the **Developer** tab.
- Click **Record Macro**. On the Record Macro window, type in the name **InsertTitle**. Make "t" the shortcut key (you are not required to insert a shortcut).
- Click **OK**.
- *Right-click* on **Row 1**.
- *Left-click* and choose **Insert**.
- Click on **cell A1** and type in the following:

Widgets r Us, Inc.

- Type **Enter**.
- Click on **Developer** tab if not already there.
- Click **Stop Recording**.
- Run this macro on the other sheets in the workbook using the keyboard shortcut or by going to the **Developer** tab, click **Macros**, choose **InsertTitle**, and click **Run**.



## Part 7: Further Help

### 7.1 HELP!

 Excel has a help feature that can aid you in refreshing your memory on certain tasks or by even learning new tasks. Help can be reached at by clicking the Question mark in the upper right hand corner. You will most likely be directed to Office.com's online help, but there is an offline version if needed.

### 7.2 Additional Help

You can find additional resources on our Excel Class webpage:

<http://www.greenwoodlibrary.us/excelclass.asp>

### 7.3 Google Sheets

Don't have Excel on your personal computer? Try using Google Sheets – <https://docs.google.com/spreadsheets>. The caveat: you will need a (free) Google account to use it.

## Thank you for coming!

Please fill out a Computer Class Survey before leaving.

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