

Excel for Data Analysis I

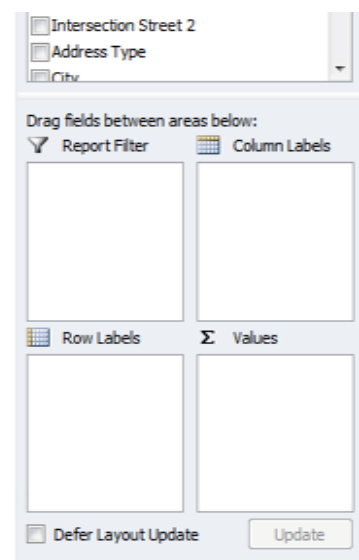
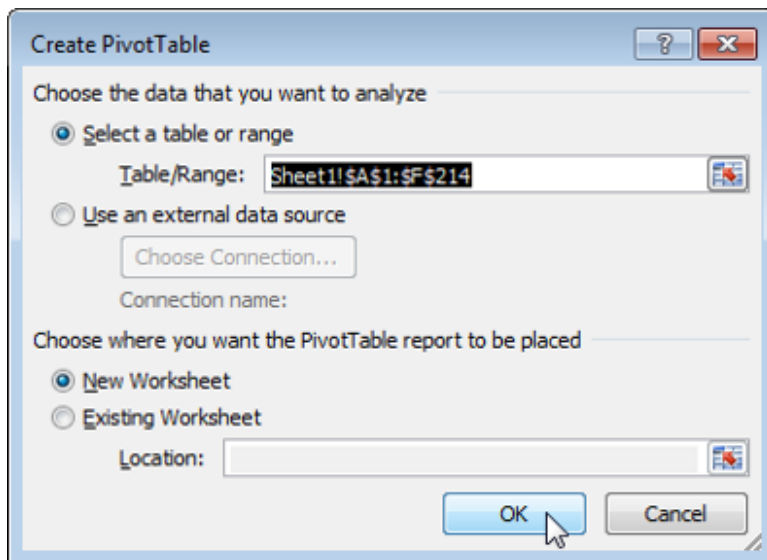
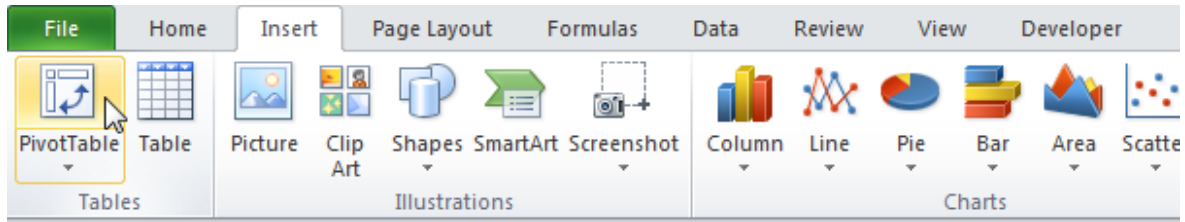
Follow along at: <http://bit.ly/excel-analysis-i>

Key Questions for the Morning

- Benefits of Excel?
- Drawbacks of Excel?
- Keyboard Shortcuts
 - **Ctrl + arrow key** - Go to the end of the text in that direction
 - **Ctrl + c** - Copy the selection to clipboard
 - **Ctrl + v** - Paste clipboard contents to the cell(s)
- The Value of Data
- What is Analysis?


Key Data Tasks

PivotTables

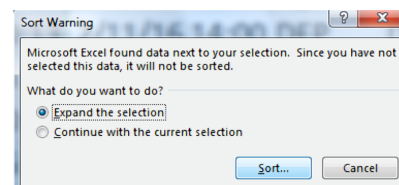
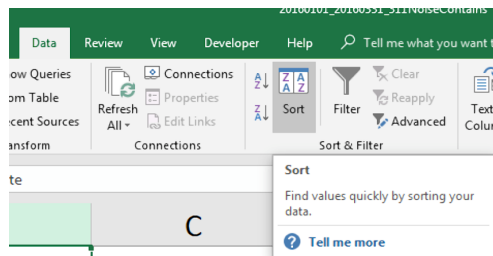


Sorting

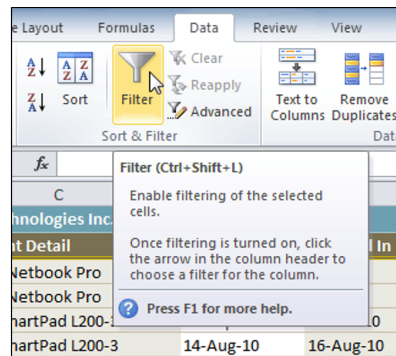
	A	B	C
1	Unique Key	Created Date	Closed Date
2	32576232	2/1/16 10:13	2/11/16 14:00
3	32884992	3/11/16 13:48	3/12/16 8:00
4	32445685	1/18/16 10:56	1/20/16 8:00
5	32816604	3/2/16 15:17	3/3/16 8:00
6	32480740	1/22/16 10:19	1/24/16 20:00
7	32518960	1/25/16 7:35	1/28/16 15:45



	A	B	C
1	Unique Key	Created Date	Closed Date
2	32305299	1/1/16 0:00	1/1/16 1:57
3	32310343	1/1/16 0:00	1/1/16 3:12
4	32308578	1/1/16 0:02	1/1/16 23:35
5	32305983	1/1/16 0:03	1/1/16 3:24
6	32305208	1/1/16 0:03	1/1/16 2:43
7	32309484	1/1/16 0:04	1/1/16 0:28

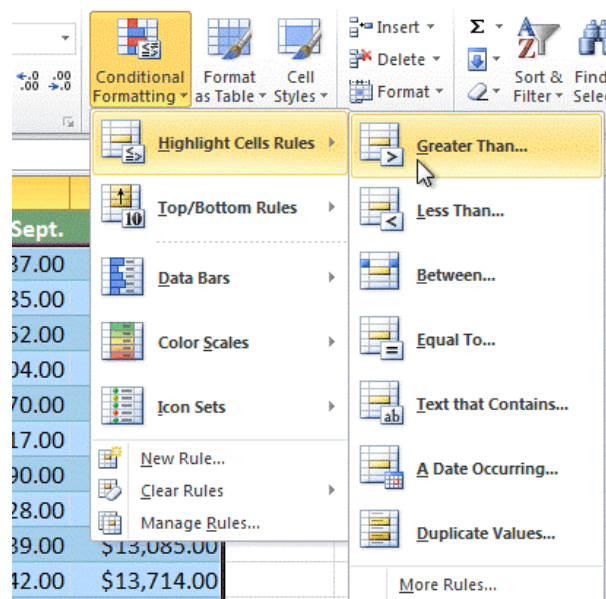


Filtering



	A	B	C	D	E	F
1	Unique Ki	Created Date	Closed Date	Agency Name		Complaint Type

Conditional Formatting



Documentation

- Importance
- Guidelines

Basic Function Syntax

```
=FUNCTION_NAME(parameter1, parameter2,...)
```

For Example

```
=SUM(A5:A8)
```

- This tells Excel to sum all the values in cells A5, A6, A7, and A8

Useful Functions in Excel

=SUM(): Calculates the sum for a range of numbers

=COUNT(): Counts the number of cells containing numbers in a range

=COUNTA(): Counts the number of non-blank cells in a range

=HOUR(): Extracts the hour from a timestamp

=WEEKDAY(): Extracts the day of the week from a timestamp

=CHOOSE(): Uses an index number to return a result from an ordered list of values

=MID(): Select a specified number of characters from a text string

=LEFT(): Select a specified number of characters from the beginning of a text string

=RIGHT(): Select a specified number of characters from the end of a text string

=FIND(): Find the location of a given character in a text string

=CONCATENATE(): Combine characters together into a text string

=VLOOKUP(): An operation to look up a value in another location based on an index value

=IF(): A function for logical comparison between values to return a desired result given a particular condition

Resources

- 311 Noise Complaint data - <https://data.cityofnewyork.us/>
- Microsoft Excel keyboard shortcuts - <http://bit.ly/excel-shortcut>
- 7 essential Excel tricks every office worker needs to know - <http://bit.ly/excel-7-tasks>
- 11 Places That Can Turn You Into A Microsoft Excel Power User - <http://bit.ly/become-excel-power-user>
- Data Sensemaking- <http://felinlovewithdata.com/teaching/developing-a-data-sensemaking-course>
- Data Visualization Tips and Pitfalls - <https://www.data-to-viz.com/caveats.html>
- Datapolitan training classes <http://training.datapolitan.com/>

Contact Information

Email: training@datapolitan.com

Twitter: [@datapolitan](https://twitter.com/datapolitan)

Website: <http://www.datapolitan.com>

Additional Notes

Implementation Guide

Concept/Technique	Why It's Important	How I Can Use It
The Value of Data		
What is Analysis?		
Aggregating Data		
Sorting Data		
Filtering Data		
Manipulating Data		
Visualizing Data		
Functions in Excel		
Documenting Steps		
Types of Charts		