Datapolitan

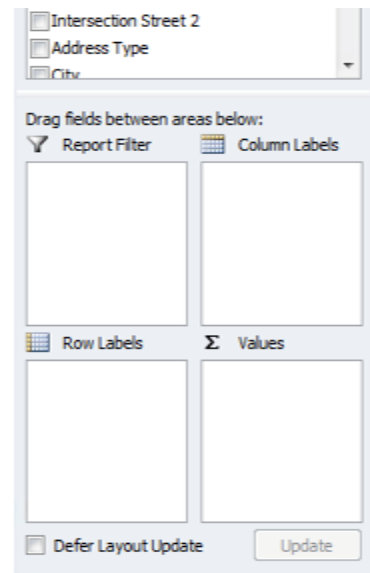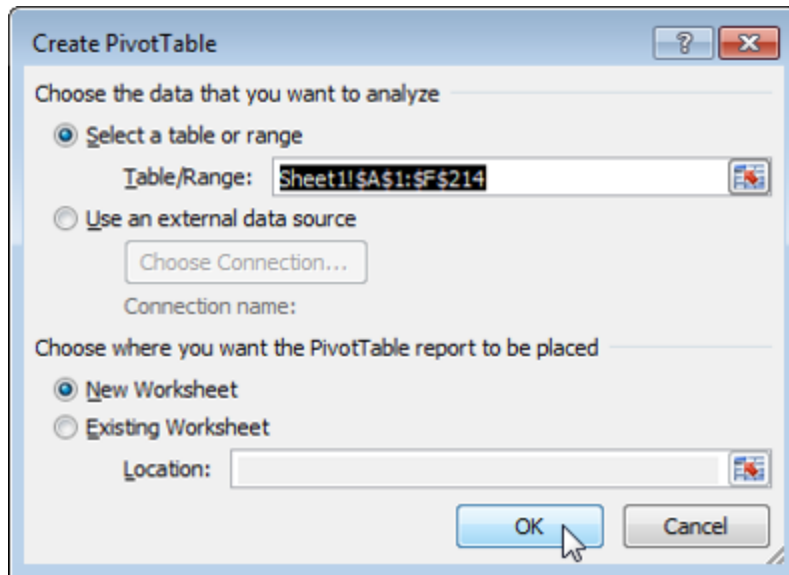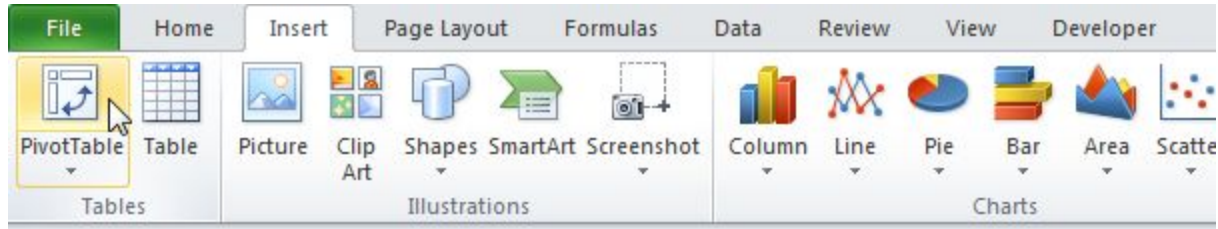Data Solutions for the Modern Metropolis

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

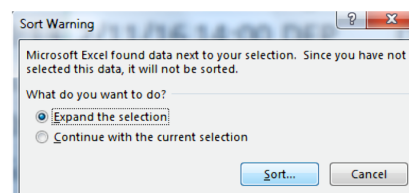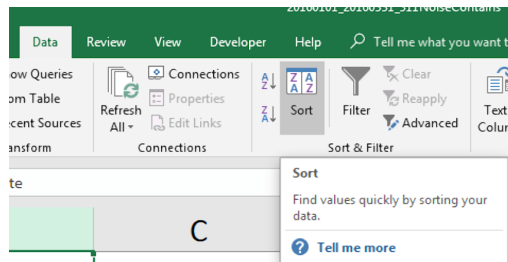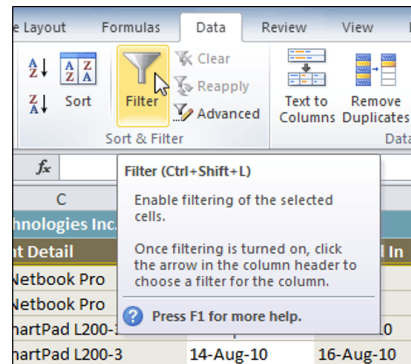- What is Analysis?

Key Data Tasks

PivotTables

Sorting

Filtering

Conditional Formatting
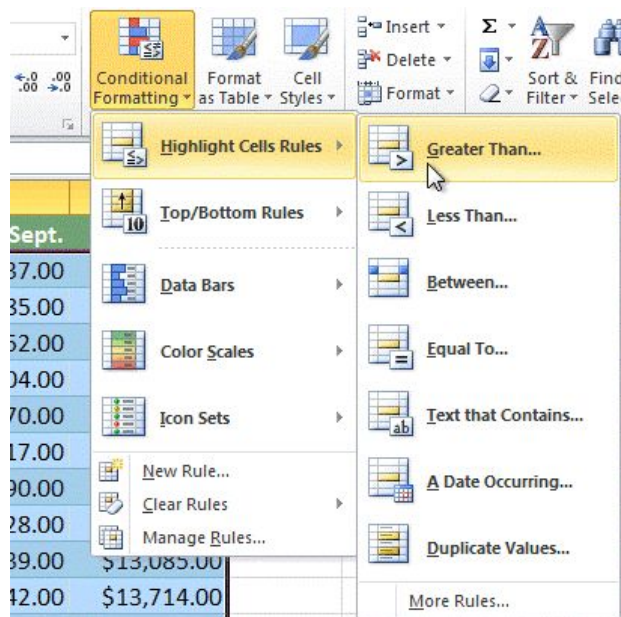
Documentation

- 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://fellinlovewithdata.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/

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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		