

# Excel Data 5: Substitution List vLookups/PivotTables



## Excel Data 5: Substitution List vLookups/PivotTables

### 1.0 hour

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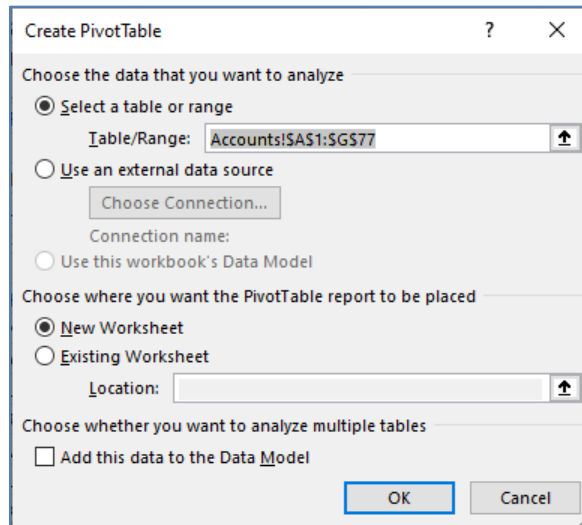
**Download the files for this session**

<http://media.news.health.ufl.edu/misc/training/Handouts/zoom/Excel/ExcelData5.zip>

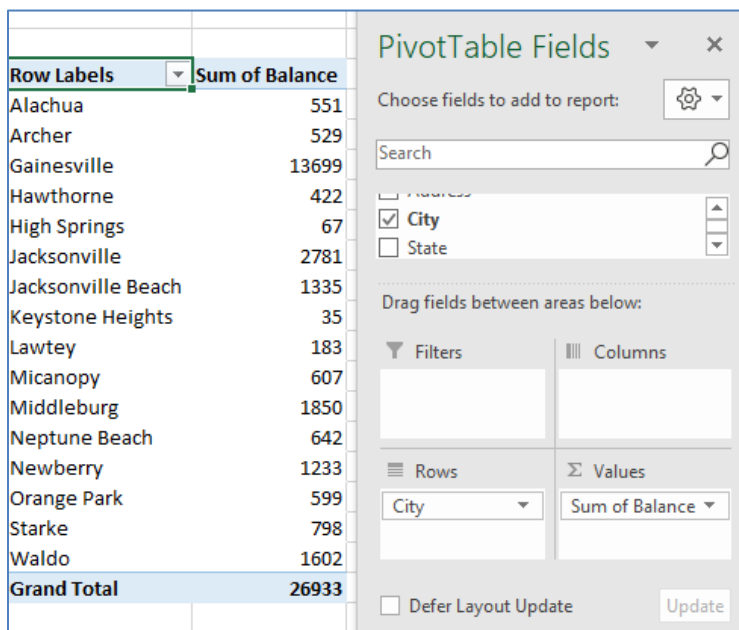
**Exercise 1 – Accounts**

**Create County PivotTable**

- Open Data5-Accounts.xlsx
- Insert a PivotTable on a new sheet
  - o From the Insert tab choose PivotTable
  - o Click OK



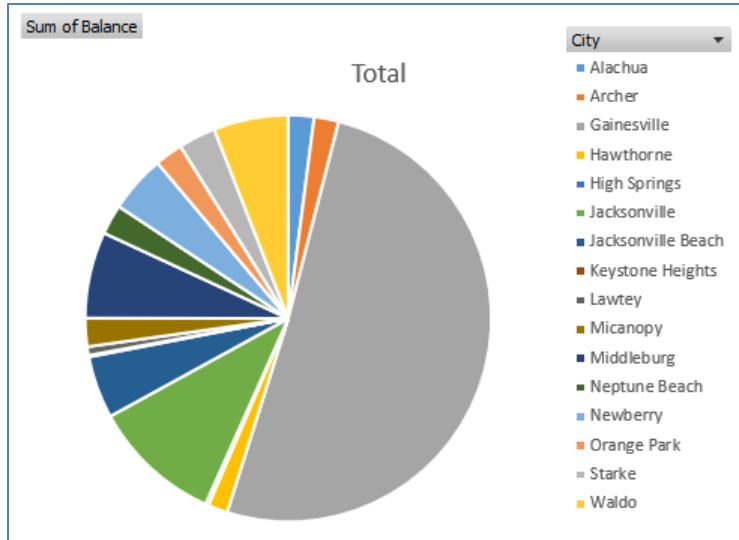
- Set up the PivotTable
  - o Use the City as the Row Heading
  - o Use the Balance as the Value



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## Create PivotChart

- Create a Pie PivotChart
  - o From the Insert tab, choose the small pie
  - o *OR* from the Analyze tab, choose PivotChart



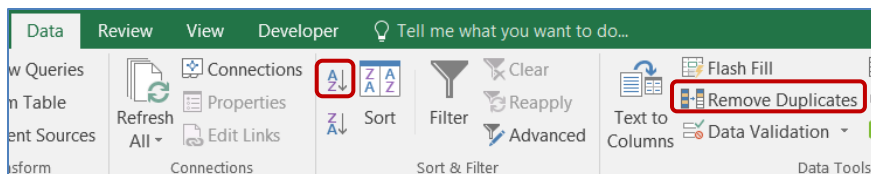
## Substitution List

There are too many cities to make an effective chart. A larger category such as County will work better. There is currently no County field in this workbook. This happens all the time in data collection. Too many options, too many entries. It could be poor data entry (Gainesville, GNV, Gville), or as in this example too many values that can easily be grouped into larger categories.

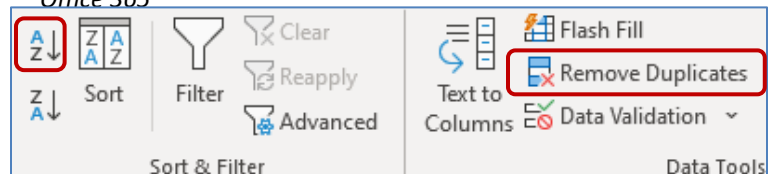
## Make a list of Unique Values

- Turn to *Accounts* worksheet
- Copy Column E (*City*)
- Create a new worksheet
- Paste in Cell A1
- From the **Data** tab in the ribbon, click **Remove Duplicates**, click **OK**
- Sort the new list of values

### Office 2016



### Office 365



### Create a Column of Substitute Values

- Title Column B: **County**
- Type in the new values
- Name the worksheet **Counties**

### **Use vLookup to Find New Values**

- Return to *Accounts* worksheet
- Insert a column after Zip (Column H), name it **County**
- Under the title, build the expression:

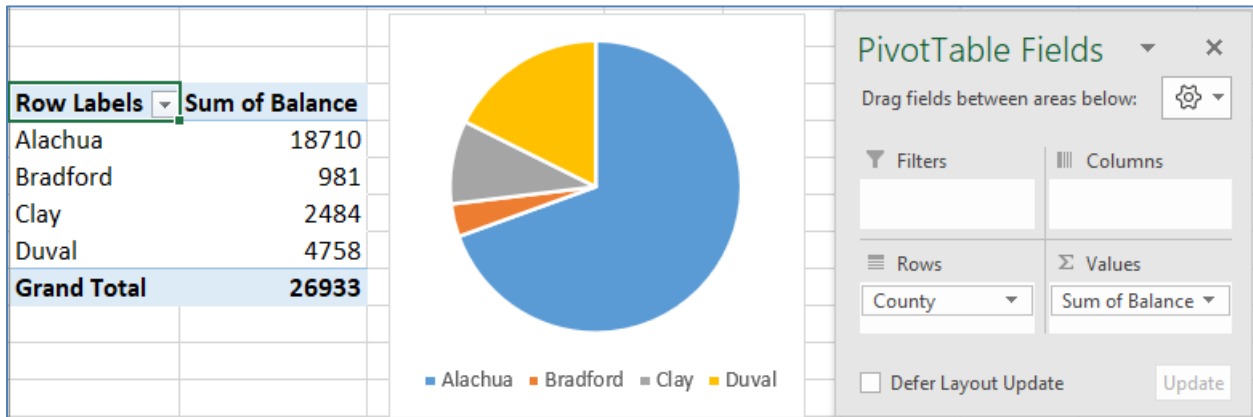
**=VLOOKUP(E2,Counties!A:B,2,FALSE)**

- Fill the formula down
  - o Drag or Double-click on the fill handle

### **Update the Pivot Table**

- Return to the *PivotTable*
- Right-click in the table and **Refresh** the data
- Switch City for County in the **Row** Heading
- Rename worksheet to **County Pivot**

City	County
Alachua	Alachua
Archer	Alachua
Gainesville	Alachua
Hawthorne	Alachua
High Springs	Alachua
Jacksonville	Duval
Jacksonville Beach	Duval
Keystone Heights	Clay
Lawtey	Bradford
Micanopy	Alachua
Middleburg	Clay
Neptune Beach	Duval
Newberry	Alachua
Orange Park	Clay
Starke	Bradford
Waldo	Alachua



### **Format PivotChart**

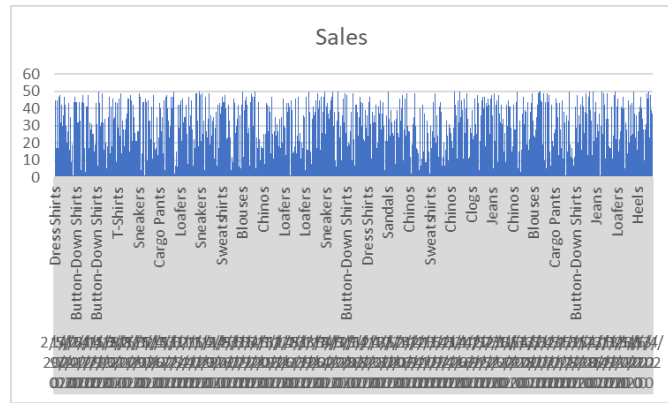
- Click on the chart
- Open the Chart Element menu (Plus sign on the side of the chart)
  - o Turn off the Chart Title
  - o Move the Legend to the bottom
- From the Analyze tab turn off the field buttons
  - o Last button on the PivotChart Analyze tab

SAVE THE FILE

## Exercise 2 – Sales

### Create Sales Chart

- Open Data5-Sales.xlsx
- Insert a column chart
- Delete chart



### Create Sales PivotTable

- Insert a PivotTable on a new sheet
  - o From the Insert tab choose PivotTable
  - o Click OK
- Set up the PivotTable
  - o Use the Item as the Row Heading
  - o Use the Date as the Column Heading
    - This should GROUP the dates
    - Remove all the fields from the Column headings except the Months
    - If the dates don't come in, filter out the blanks
    - If you only see the years, right-click on a month and change the Group options
  - o Use Sales as the value

Sum of Sales	Jan	Feb	Mar	Apr	May	Jun	Grand Total
Blouses	401	327	145	360	290		1523
Boots	237	125	396	377	430	32	1597
Button-Down Shirts	358	315	243	332	158	50	1456
Cargo Pants	286	385	201	371	247		1490
Chinos	186	151	334	179	437		1287
Clogs	214	296	210	151	364	43	1278
Drawstring pants	382	267	218	361	147	32	1407
Dress Shirts	233	333	283	201	212		1262
Heels	358	143	210	334	168		1213
Jeans	531	415	772	477	567	31	2793
Khakis pants	337	113	301	163	337		1251
Loafers	477	279	509	289	408		1962
Polos Shirts	145	227	339	333	175		1219
Sandals	370	242	216	212	426	44	1510
Sneakers	340	315	452	386	206		1699
Sweatpants	331	353	459	206	274	47	1670
Sweatshirts	327	272	307	285	379		1570
T-Shirts	232	352	177	236	262	20	1279
<b>Grand Total</b>	<b>5745</b>	<b>4910</b>	<b>5772</b>	<b>5253</b>	<b>5487</b>	<b>299</b>	<b>27466</b>

### PivotTable Fields

Choose fields to add to report:

Search

Date

Item

Sales

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Drag fields between areas below:

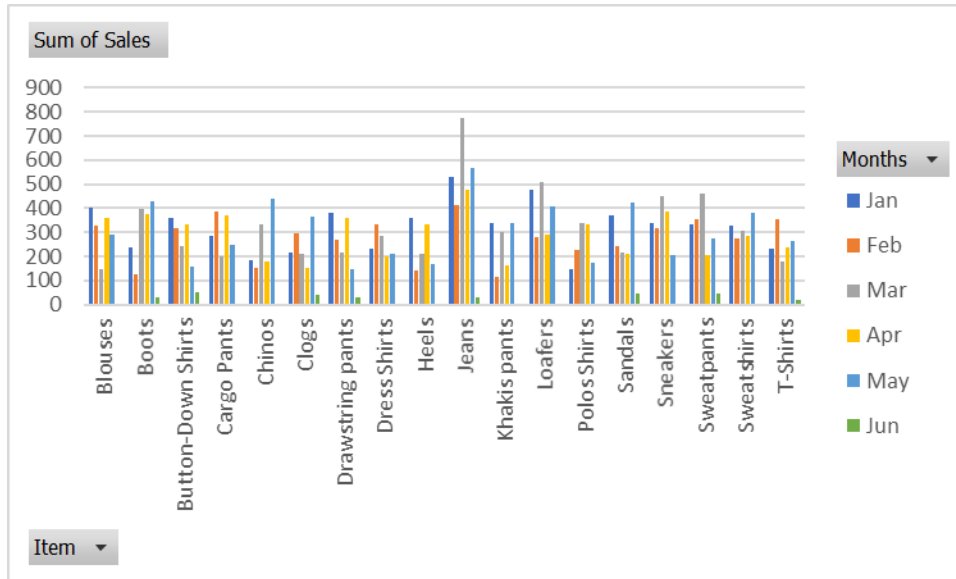
<p>Filters</p>	<p>Columns</p> <p>Months</p>
<p>Rows</p> <p>Item</p>	<p>Values</p> <p>Sum of Sales</p>

Defer Layout Update

Update

## Create PivotChart

- Insert a column chart



## Substitution List

- Return to the Sales worksheet
- Copy the Item column
- Paste into a new sheet
- Remove the duplicates
- Sort the data
- Fill in the proper values
- Name the worksheet Categories

Item	Category
Blouses	Shirt
Boots	Shoes
Button-Down Shirts	Shirt
Cargo Pants	Pants
Chinos	Pants
Clogs	Shoes
Drawstring pants	Pants
Dress Shirts	Shirt
Heels	Shoes
Jeans	Pants
Khakis pants	Pants
Loafers	Shoes
Polos Shirts	Shirt
Sandals	Shoes
Sneakers	Shoes
Sweatpants	Pants
Sweatshirts	Shirt
T-Shirts	Shirt

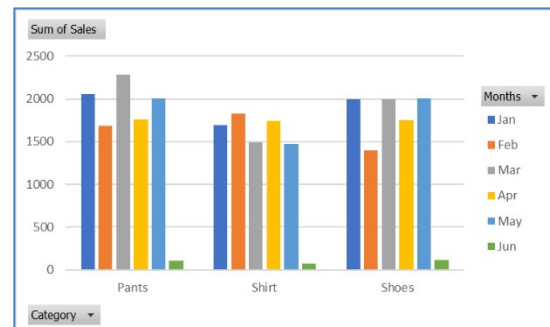
## Use vLookup to Find New Values

- Return to the Sales worksheet
- Insert a column between Item and Sales
- Create a vLookup to find the correct Category

○ =VLOOKUP(B2,Categories!A:B,2,FALSE)

## Update the PivotTable

- Return to the PivotTable
- Right-click in the table and **Refresh** the data
- Switch Item for **Category** in the **Column Heading**



## "Switch Row Columns"

- Move Months into the Row Headings/Axis (Categories)
- Move Category into the Column Headings/Legend (Series)

Sum of Sales	Pants	Shirt	Shoes	Grand Total
Jan	2053	1696	1996	5745
Feb	1684	1826	1400	4910
Mar	2285	1494	1993	5772
Apr	1757	1747	1749	5253
May	2009	1476	2002	5487
Jun	110	70	119	299
<b>Grand Total</b>	<b>9898</b>	<b>8309</b>	<b>9259</b>	<b>27466</b>

### PivotTable Fields

Drag fields between areas below:

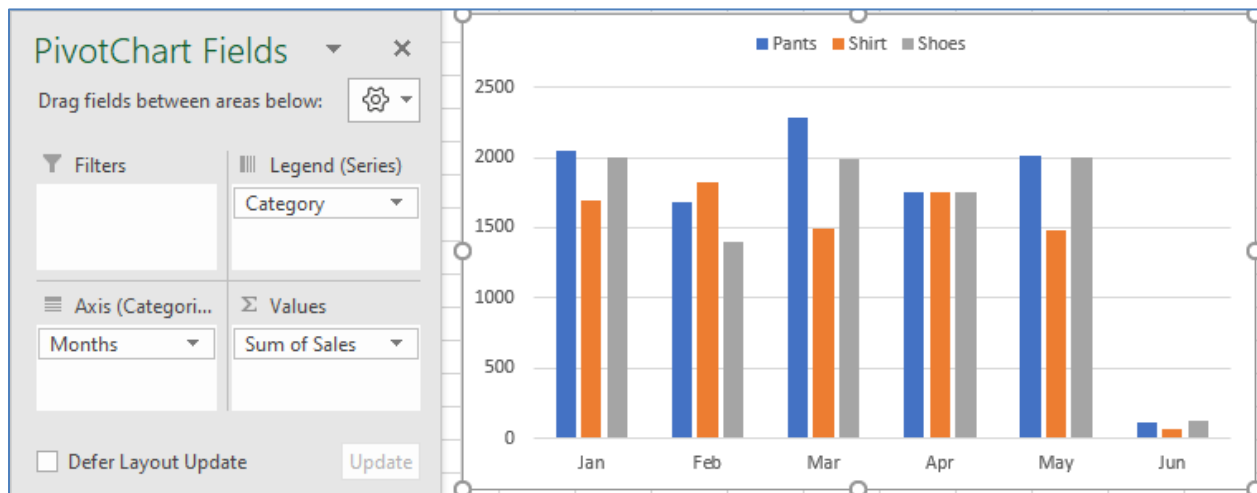
**Filters**

**Columns**  
Category

**Rows**  
Months

**Values**  
Sum of Sales

Defer Layout Update Update



## Format PivotChart

- Click on the chart
- Open the Chart Element menu (Plus sign on the side of the chart)
  - o Turn off the Chart Title
  - o Move the Legend to the Top
- From the Analyze tab turn off the field buttons
  - o Last button on the PivotChart Analyze tab

**SAVE THE FILE**



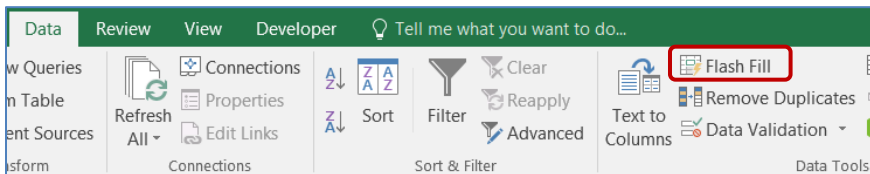
### Exercise 3 – Sessions

#### Categorize Topics with Flash Fill

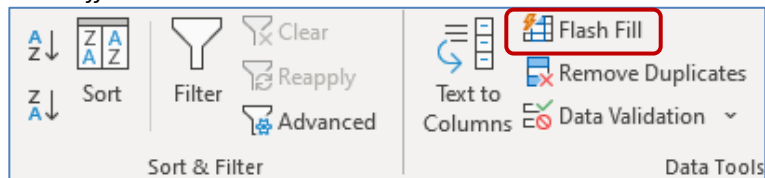
(Office 2013 or later)

- Open Data5-Sessions
- Insert a column between Date and Session, Column B
- Title this new column "Topic"
- In Cell B2 Type "Zoom"
- In the Data tab, choose Flash Fill
  - o Or press Ctrl-E
- **UNDO**
- In Cell B3 type "Excel"
- Flash Fill

Office 2016



Office 365



	A	B	C	D	E
1	<b>Date</b>	<b>Topic</b>	<b>Session</b>	<b># Attended</b>	<b>Instructor</b>
2	6/2/2020 14:00	Zoom	Zoom 1	91	D.W. Young
3	6/2/2020 11:00	Excel	Excel Data 4	29	Pandora Rose Cowart
4	6/1/2020 14:00	Word	Word Tables 1	17	Pandora Rose Cowart
5	6/1/2020 11:00	Access	Access Qry2	8	prcowart@ufl.edu
6	5/29/2020 14:00	Excel	Excel Math 4	21	Cowart
7	5/29/2020 11:00	Excel	Excel Charts 1	26	P. Cowart

#### Clean up Names with Substitution List

- Select Instructors, Column E
- Copy and Paste into a new space
  - o Paste in Column I (Doesn't need to be a new sheet)
- Remove Duplicates
- Sort the data
- Fill in the proper values in the next column

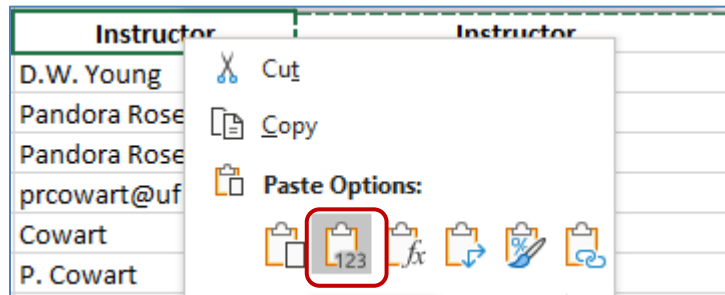
Cowart	Pandora Rose Cowart
D.W. Young	Scott Young
P. Cowart	Pandora Rose Cowart
Pandora R. Cowart	Pandora Rose Cowart
Pandora Rose Cowart	Pandora Rose Cowart
prcowart@ufl.edu	Pandora Rose Cowart
Scott Young	Scott Young
Scott.Young@ufl.edu	Scott Young
Young	Scott Young

Replace with "proper" names

- Title Column F "Instructor"
- Create the vLookup
  - o =VLOOKUP(E2,\$I\$2:\$J\$10,2,FALSE)

E	F	G	H	I	J
Instructor	Instructor				
D.W. Young	=VLOOKUP(E2,\$I\$2:\$J\$10,2,FALSE)			Cowart	Pandora Rose Cowart
Pandora Rose Cowart	Pandora Rose Cowart			D.W. Young	Scott Young
Pandora Rose Cowart	Pandora Rose Cowart			P. Cowart	Pandora Rose Cowart
prcowart@ufl.edu	Pandora Rose Cowart			Pandora R. Cowart	Pandora Rose Cowart
Cowart	Pandora Rose Cowart			Pandora Rose Cowart	Pandora Rose Cowart
P. Cowart	Pandora Rose Cowart			prcowart@ufl.edu	Pandora Rose Cowart
Cowart	Pandora Rose Cowart			Scott Young	Scott Young
P. Cowart	Pandora Rose Cowart			Scott.Young@ufl.edu	Scott Young
Cowart	Pandora Rose Cowart			Young	Scott Young

- Copy Column F and Paste Value on Column E to replace



- Delete Columns F through J

**Create Session PivotTable**

- Insert a PivotTable on a new sheet
- Set up the PivotTable
  - o Use the Instructor and Topic as the Row Headings
  - o Use # Attended and Session as the values

Row Labels	Sum of # Attended	Count of Session
<b>Pandora Rose Cowart</b>	<b>853</b>	<b>24</b>
Access	55	3
Excel	740	19
Word	58	2
<b>Scott Young</b>	<b>273</b>	<b>6</b>
Acrobat	49	2
Outlook	41	1
PwrPnt	23	1
Zoom	160	2
<b>Grand Total</b>	<b>1126</b>	<b>30</b>

**PivotTable Fields**

Drag fields between areas below:

**Filters**

**Columns**

Σ Values

**Rows**

Instructor

Topic

**Σ Values**

Sum of # Attended

Count of Session

Defer Layout Update Update