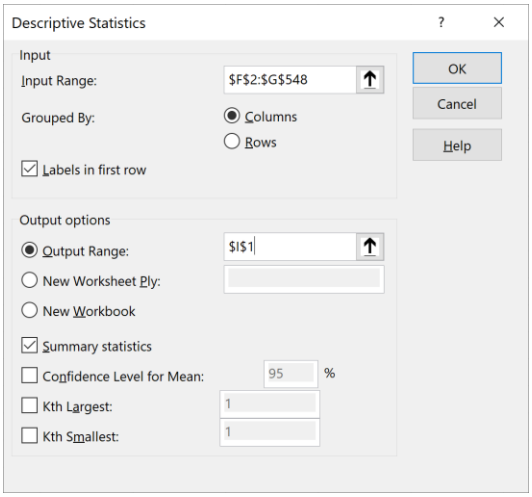
Advancing into Analytics Foundations: Demo notes

Is there a difference in sales between legacy and prototype stores?

1. Make a copy of the workbook. We want to keep the raw data intact for the next lessons.
2. Create a PivotTable containing *trans_id* in the rows, *airco* in the Columns and *Sum of sales_amt* in the Values.
    a. Design > Grand Totals > Off for Rows and Columns

3. Download the Data Analysis ToolPak:
    a. File > Options > Add-ins > Go > Analysis ToolPak
4. Run the descriptives for each category using the Analysis ToolPak:
    a. Data > Data Analysis > Descriptive Statistics
    b. Select the data range, making sure you check on “Labels in first row”
    c. Specify that you want summary statistics and select the output range.



5. It appears the prototype stores are pulling in a $20 increase over legacy. But is this likely to hold up across all stores?

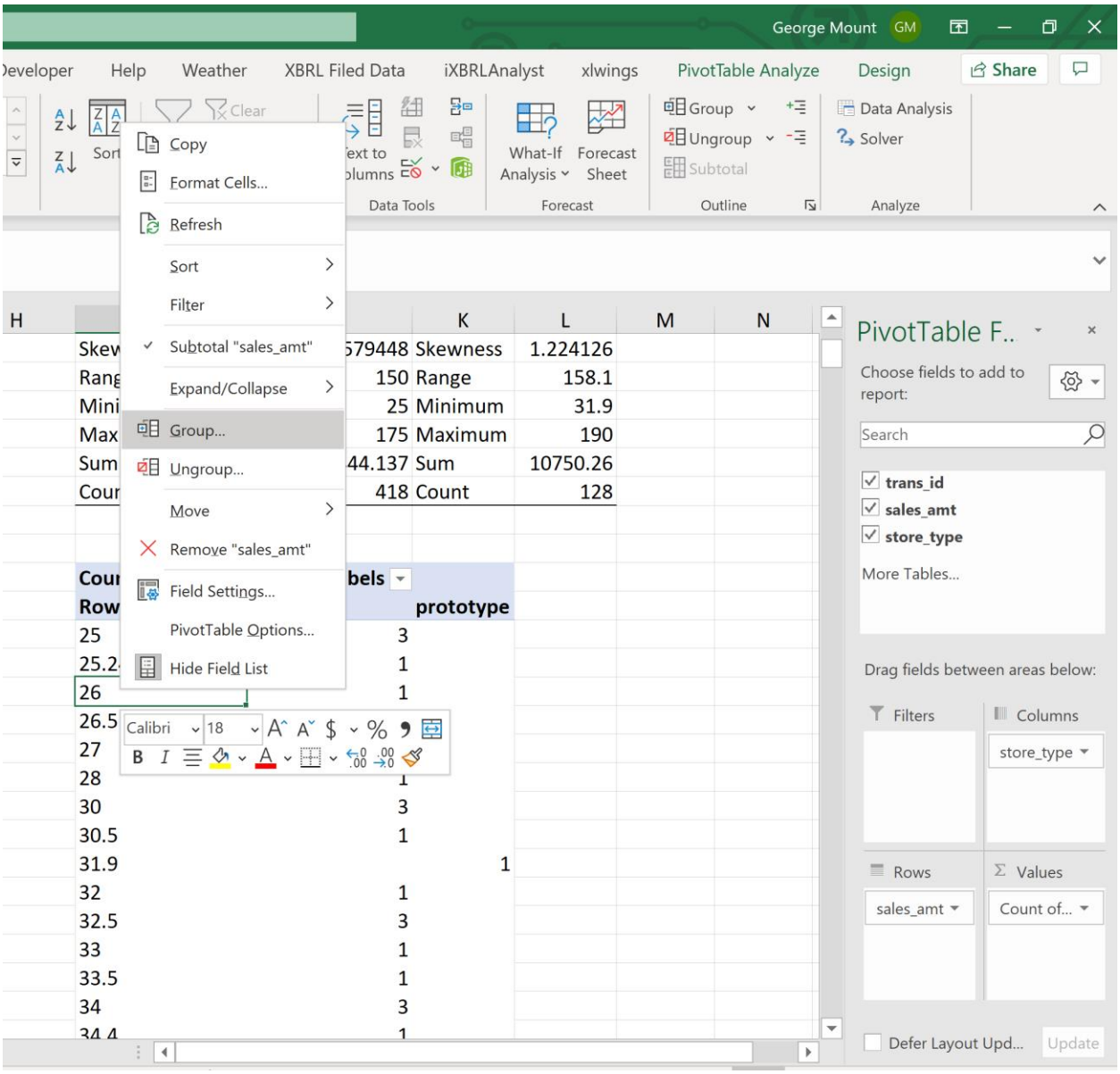
	legacy		*prototype*
Mean	63.26348565	Mean	83.98636719
Standard Error	1.184356777	Standard Error	2.505184452
Median	58.5	Median	79.75
Mode	60	Mode	85
Standard Deviation	24.21423152	Standard Deviation	28.34292663
Sample Variance	586.3290081	Sample Variance	803.32149
Kurtosis	1.859237628	Kurtosis	2.008098809
Skewness	1.233579448	Skewness	1.224126139
Range	150	Range	158.1
Minimum	25	Minimum	31.9
Maximum	175	Maximum	190
Sum	26444.137	Sum	10750.255
Count	418	Count	128

We'll check one more thing before answering: let's visualize the data.

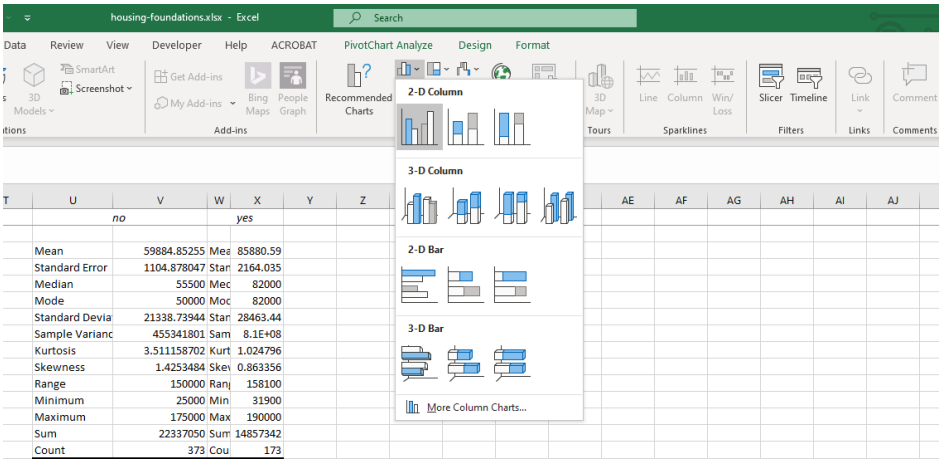
Plot a histogram for two categories

1. Create another PivotTable (copy-paste the old one)
2. Place the two categories along the Columns, the continuous variable of interest down the Rows, and the Count of the ID variable in the Values.

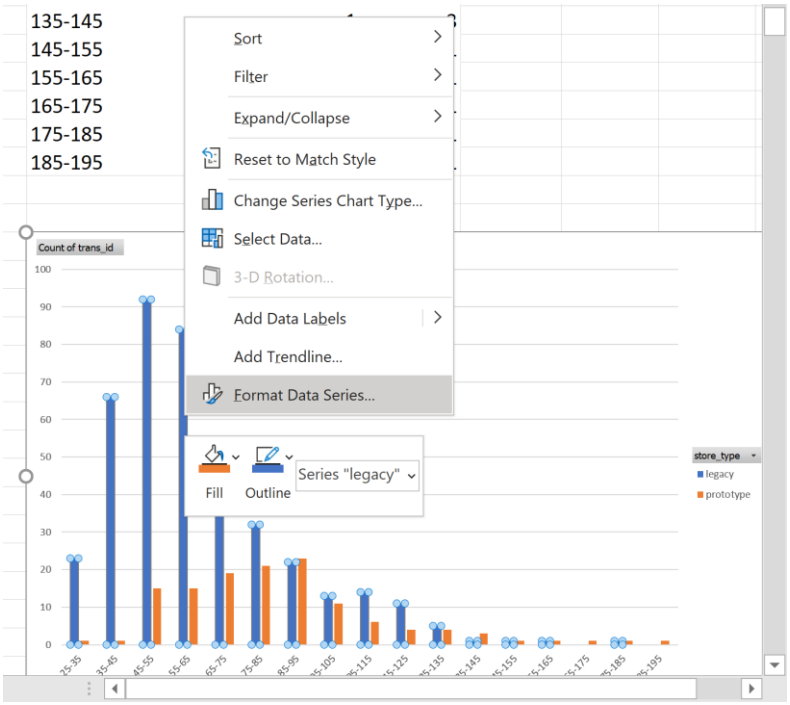
3. Right-click the Rows area and select Group.



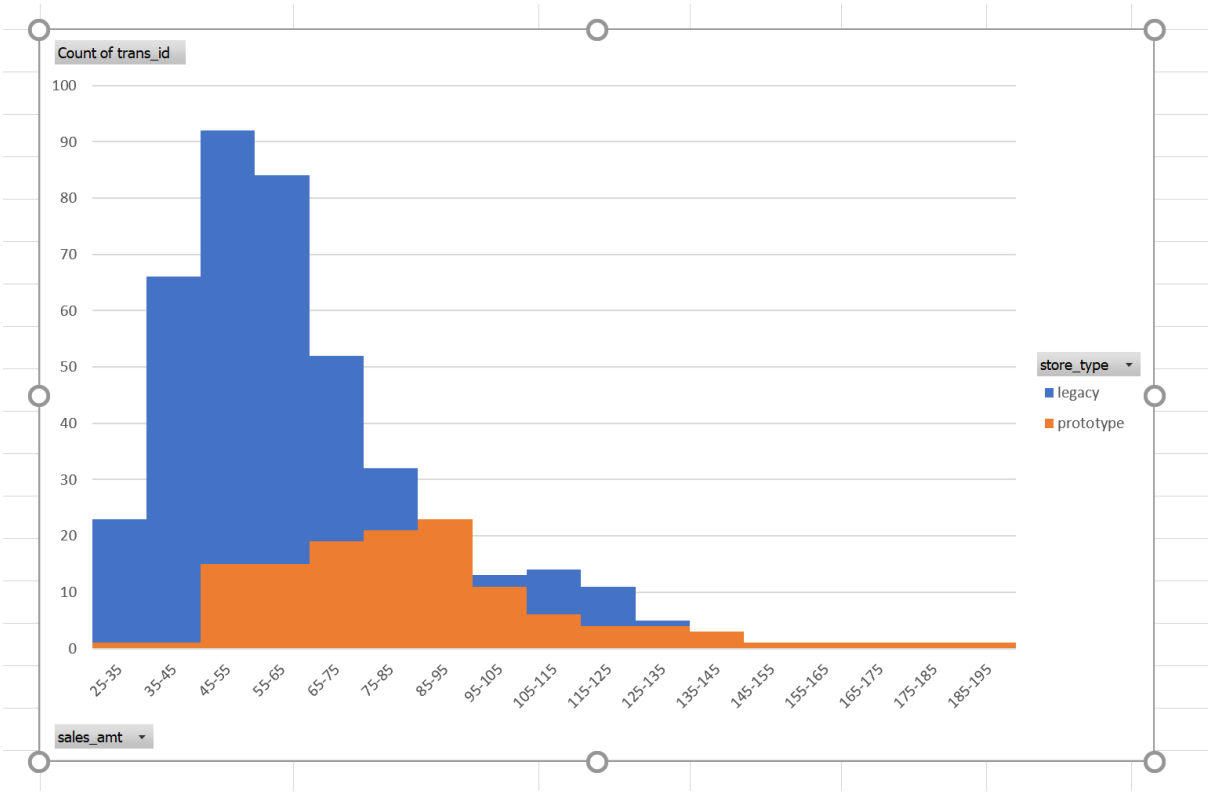
4. Go to Insert on the home ribbon and select a 2-D Column chart.



5. Right-click on any of the bars in the resulting bar chart. Select Format Data Series.



6. Adjust the Series Overlap to 100% and the Gap Width to 0%.


Count of trans_id
100
90
80
70
60
50
40
30
20
10
0
25-35
35-45
45-55
55-65
65-75
75-85
85-95
95-105
105-115
115-125
125-135
135-145
145-155
155-165
165-175
175-185
185-195
store_type
legacy
prototype
sales_amt