



Power BI Advanced

# Data Visualization and Storytelling

Version: August 2019



## Lab 1: Updated Column Chart



### Column charts – PBIX Tab “Lab1”



- Update the chart on the left to the one on the right.

Note: For the gradient, there is a Measure called “Greater or Lower” which should be helpful

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**Challenge:**  
Create 2nd chart which  
sorts by first



Update visual on the left to look like visual on the right.

### Step by Step

1. Copy the current Line and Clustered Column chart
2. Change it to a Clustered Column Chart
3. Set Sort to Sales > Decreasing in the chart using the ellipsis (... in the upper right)
4. Use the Analytics tab to add an Average Line: (grey, dotted, in front), then add a data label (grey, right)
5. Add the “Greater or Lower” measure to the color saturation, and set the light blue and dark blue
6. Format the title with a Medium blue of the same family and Text (12 point, dark grey, centered)

### LAB Challenge:

1. Create Bottom chart (displaying the measure Mobile Sales with the TrafficChannels sorted in the same order as they are in the Tablet Sales chart)
2. Copy first chart and change the measure to Mobile Sales
3. Show the measure “SortBy” which is TabletSales divided by a million
4. In the Model there is a measure called “SortBy” which is placed into the new chart by dropping it in the values field
5. Remove the Legend, update the data color of “SortBy” to white
6. Update the title

## Student Notes

## Lab 2: Table



Segment	Sales	VTB
Accessory	\$3,566,905	882,969.17
All Season	\$768,092	-111,799.45
Convenience	\$8,613,502	220,765.90
Extreme	\$221,704	-538,600.51
Moderation	\$26,205,280	7,519,513.20
Productivity	\$1,722,832	283,102.11
Regular	\$12,930	-17,074.40
Select	\$4,265	-7,423.59
Youth	\$805,723	541,451.01
<b>Total</b>	<b>\$41,921,234</b>	<b>8,772,903.43</b>

Segment	Sales	VTB
Moderation		\$7,519,513
Convenience		\$220,766
Accessory		\$882,969
Productivity		\$283,102
Youth		\$541,451
All Season		(\$111,799)
Extreme		(\$538,601)
Regular		(\$17,074)
Select		(\$7,424)
<b>Total</b>	<b>\$41,921,234</b>	<b>\$8,772,903</b>

Update visual on the left to look like visual on the right.

### Step by Step

1. Update the Column Headers to Dark Green 12 pt.
2. Add Conditional Format: Data Bars to Sales, and set bars “right to left” and Sort Descending
3. Add Conditional Format: Font Color Scales to VTB and set to a Diverging Color scale
4. Format VTB as Currency with zero Decimals.
5. Format row height and turn off alternating colors

## Student Notes



**What is the Sales for a selected Year and level of Geography hierarchy ?**



- Update the chart on the left to the one on the right.

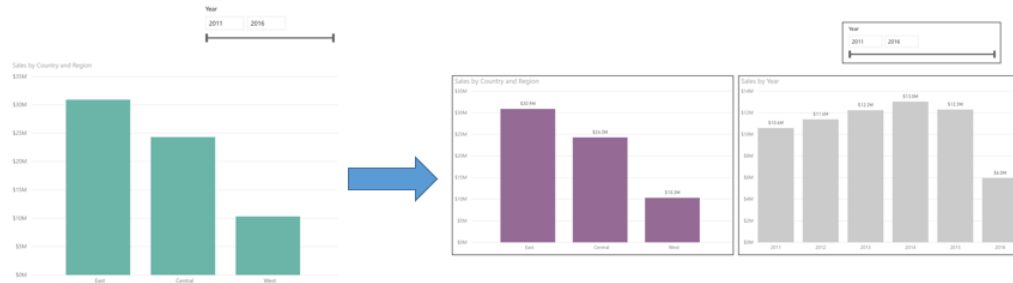
## Step by Step

1. Create Geography hierarchy in Clustered column chart by adding Region and State
2. Add data labels and change size of data labels in Clustered column chart
3. Add border and change color in Clustered column chart
4. Create a Card visual which displays Sales
5. Format Card visual by adding Title and background color

## Student Notes



## How is my Sales doing Year over Year by Geography ?



- Update the chart on the left to the one on the right.

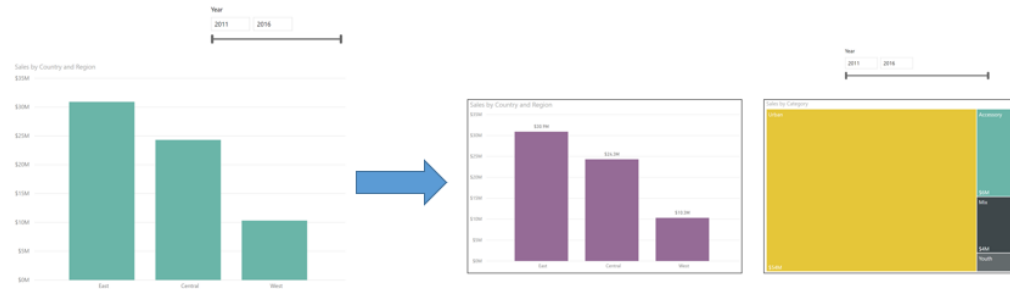
## Step by Step

1. Add data labels and change size of data labels in Clustered column chart
2. Add border and change color in Clustered column chart
3. Create another Clustered column chart this time with Date hierarchy and Sales
4. Add data labels and change size of data labels in Clustered column chart
5. Add border and change color in Clustered column chart
6. Using Edit Interaction functionality change the interaction between the two visuals to filter

## Student Notes



## How is Product Sales by Geography ?



- Update the chart on the left to the one on the right.

## Step by Step

1. Add data labels and change size of data labels in Clustered column chart
2. Add border and change color in Clustered column chart
3. Create Tree Map visual with Product hierarchy (Category, Segment, Product) by Sales
4. Add data labels and change size of data labels in Tree Map
5. Add border to Tree Map
6. Using Edit Interaction functionality change the interaction between the two visuals to filter

## Student Notes

## Lab 6



**I want to view transaction details -> Sales by Product, by date, by geography.**

**I want to easily navigate to this data from Lab 5 page**

- Use drill through feature

Date	Category	Segment	Product	Device	TrafficChannel	State	Region	Country	Sales
1/1/11	Urban	Convenience	Maximus UC-01	Tablet	SEO	CT	East	USA	\$88
1/1/11	Mix	Productivity	Maximus UC-21	Mobile	Affiliate	FL	East	USA	\$86
1/1/11	Urban	Convenience	Maximus UC-55	Mobile	Affiliate	PA	East	USA	\$37
1/1/11	Urban	Moderation	Maximus UM-11	Mobile	Affiliate	MI	East	USA	\$124
1/2/11	Urban	Convenience	Maximus UC-01	Tablet	SEO	NC	East	USA	\$88
1/2/11	Urban	Convenience	Maximus UC-01	Tablet	SEO	NJ	East	USA	\$88
1/2/11	Mix	All Season	Maximus UC-13	Tablet	SEO	VA	East	USA	\$52
1/2/11	Urban	Convenience	Maximus UC-15	Tablet	SEO	NC	East	USA	\$50
1/2/11	Urban	Convenience	Maximus UC-24	Desktop	SEM	VA	East	USA	\$147
1/2/11	Mix	Productivity	Maximus UC-24	Tablet	Affiliate	MD	East	USA	\$63
1/2/11	Youth	Youth	Maximus UC-32	Mobile	Affiliate	MI	East	USA	\$77
1/2/11	Urban	Convenience	Maximus UC-39	Tablet	Banner	NC	East	USA	\$205
1/2/11	Urban	Convenience	Maximus UC-41	Tablet	SEO	FL	East	USA	\$76
1/2/11	Urban	Convenience	Maximus UC-41	Tablet	SEO	GA	East	USA	\$76
1/2/11	Urban	Convenience	Maximus UC-41	Tablet	SEO	MI	East	USA	\$76
1/2/11	Urban	Convenience	Maximus UC-43	Mobile	Affiliate	GA	East	USA	\$157
1/2/11	Urban	Convenience	Maximus UC-69	Desktop	SEM	PA	East	USA	\$51
1/2/11	Urban	Convenience	Maximus UC-70	Mobile	Affiliate	FL	East	USA	\$42
1/2/11	Urban	Convenience	Maximus UC-74	Tablet	Banner	DE	East	USA	\$84
1/2/11	Urban	Extreme	Maximus UE-04	Tablet	SEO	VA	East	USA	\$52
1/2/11	Urban	Extreme	Maximus UE-23	Tablet	SEO	KY	East	USA	\$54
<b>Total</b>									<b>\$30,914,539</b>

## Step by Step

1. Create a table visual with Date, Category, Segment, Product, Device, Traffic Channel, State, Region, Country and Sales
2. Add Category, Segment, Product, State, Region, Country fields to Drillthrough well
3. Format table visual by changing text size and style
4. Navigate to Lab 5 and drill through to Lab 6

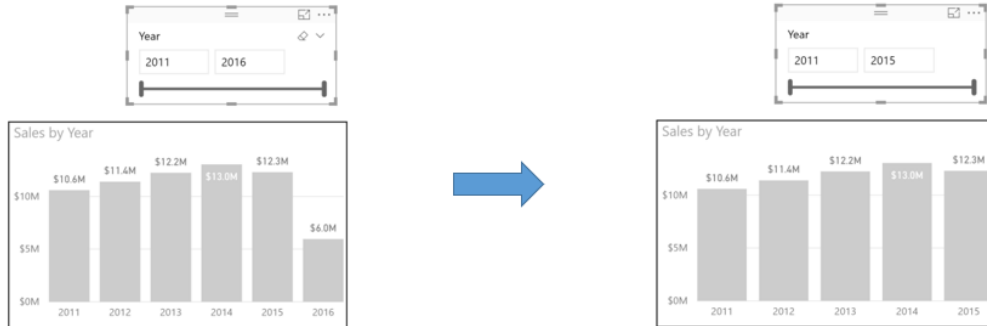
## Student Notes

## Lab 7



1. We do not have full year sales for 2016. I do not want 2016 data to show in this report page. How would I achieve this ?

2. I want 2016 data to be filtered out of the entire report. How would I achieve this ?



## Step by Step

1. Add Year from DateDim table to Page level filter
2. Use Basic filtering and filter out 2016. This will remove 2016 from the page you are working on
3. Remove Year from Page level filter
4. Add Year from DateDim table to Report level filter
5. Use Basic filtering and filter out 2016. This will remove 2016 from all the report pages

## Student Notes



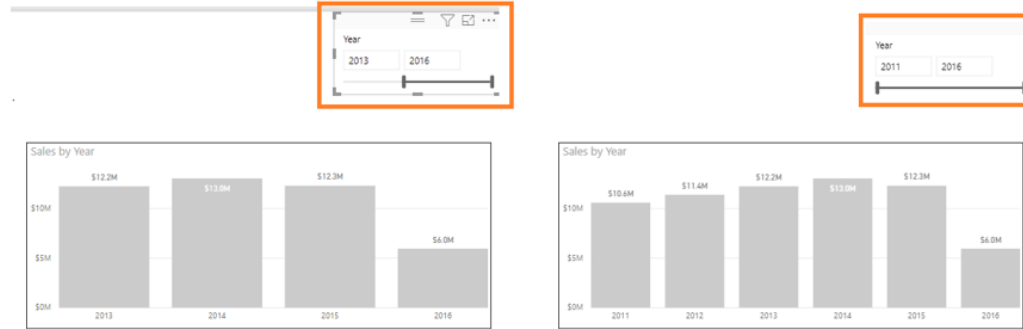
## Lab 8



**Filter Year slicer to 2013 to 2016.**

**Navigate to Lab 7 page. Notice data is not filtered by year here.**

**I want all Year slicers to be synced.**



## Step by Step

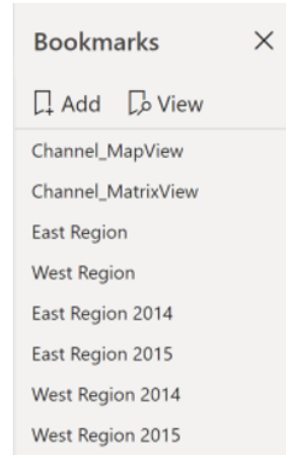
1. Select Year Slicer
2. From ribbon select View -> Sync Slicers
3. Sync slicer well opens. Use this to sync Year slicer across pages

## Student Notes



Notice there is a steady increase in Sales from 2011 through 2014. In 2015 there is a decrease.

1. Is this consistent across all Regions ?
2. Is there a difference in Sales by Product Segment in 2014 compared to 2015 ?
3. Use Bookmarks to capture your story.



## Step by Step

Create bookmarks to tell this story:

1. Filter by East Region. Sales was on an upward trend, but dropped in 2015.
2. Similar story in Central Region.
3. Filter by West Region. Sales was on an upward trend, but dropped in 2015 but not as drastic as East and Central region.
4. Cross filter by East Region and 2014, notice there is no Sales in Extreme Segment.
5. Cross filter by East Region and 2015, notice there is Sales in Extreme Segment.
6. Similar story in West Region.

Maybe there was a big promotion for Products in Extreme segment that increased Sales in this segment. In effect it reduced sales in other segments. So maybe this promotion was not profitable to the company as a whole but for Extreme segment it was profitable.

## Student Notes