

# Visualizing Data Assignment

## a) Cards

- Insert a card in the Customer Detail report page to show Total Customers, and rename the field “UNIQUE CUSTOMERS”

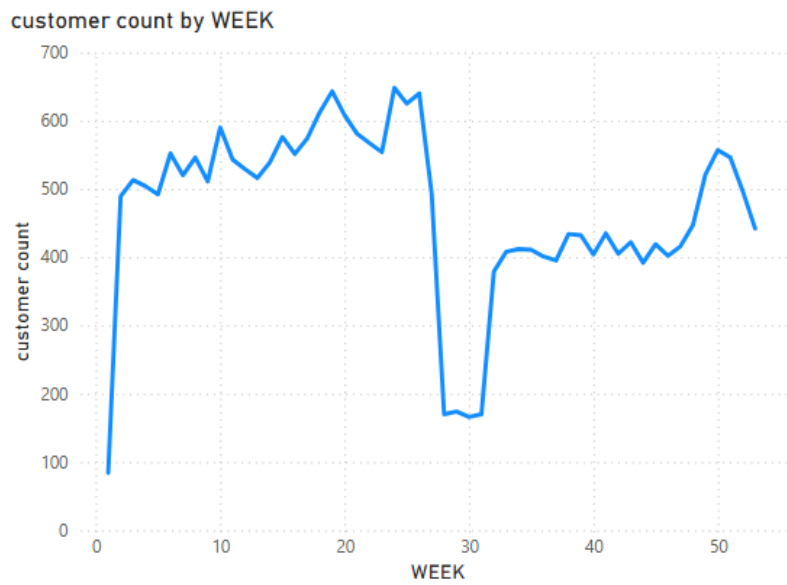
18K  
Unique Customers

- Copy and paste to create a second card showing Average Revenue per Customer, and rename the field “REVENUE PER CUSTOMER”

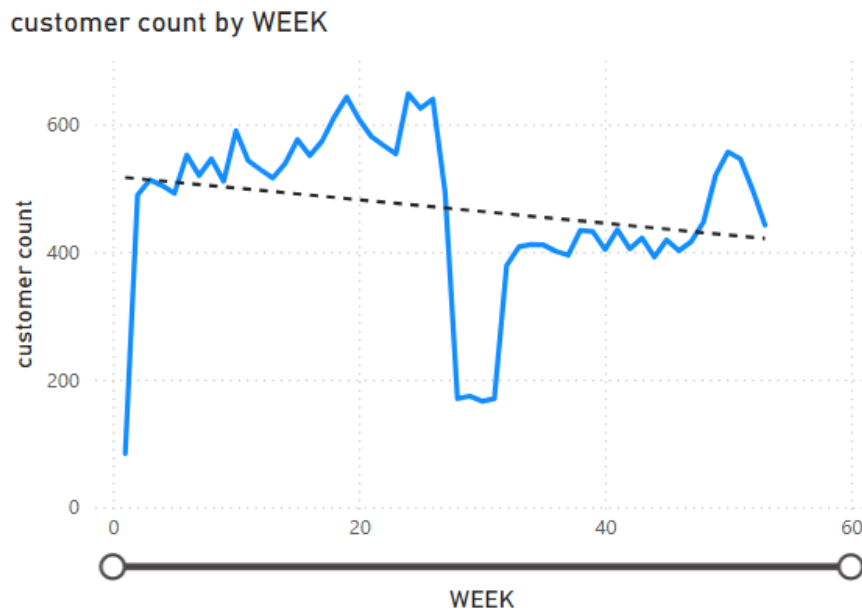
1.37K  
REVENUE PER CUSTOMER

## b) Line Charts

- Add a line chart to the Customer Detail report showing Total Customers by week

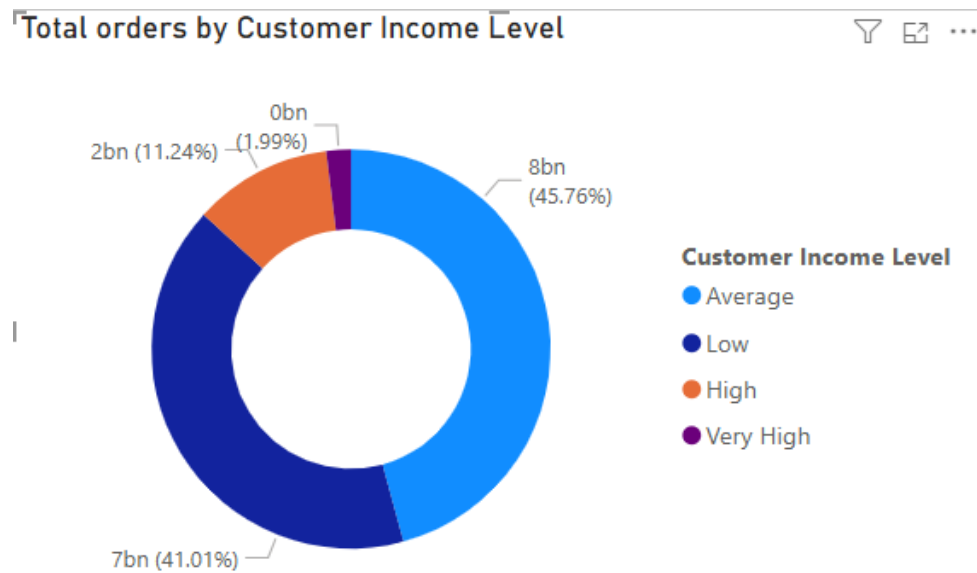


- Add a trend line and a zoom slider to the x-axis



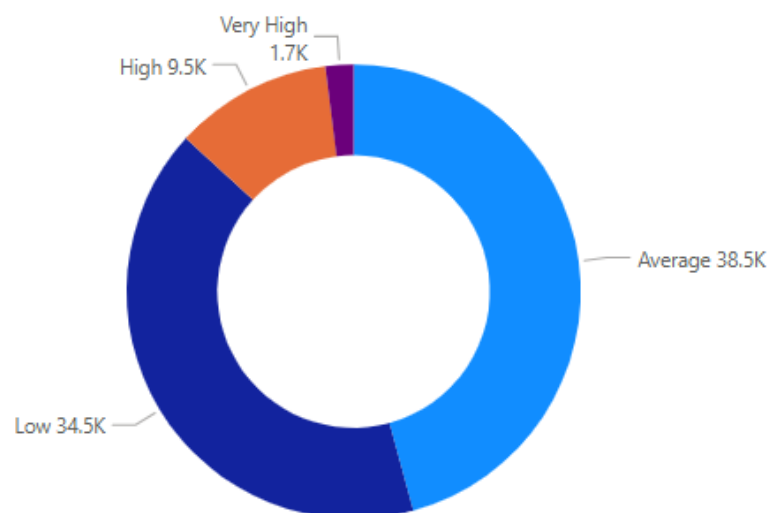
### c) Donut Chart

- Add a donut chart to the Customer Detail report showing Total Orders by Income Level

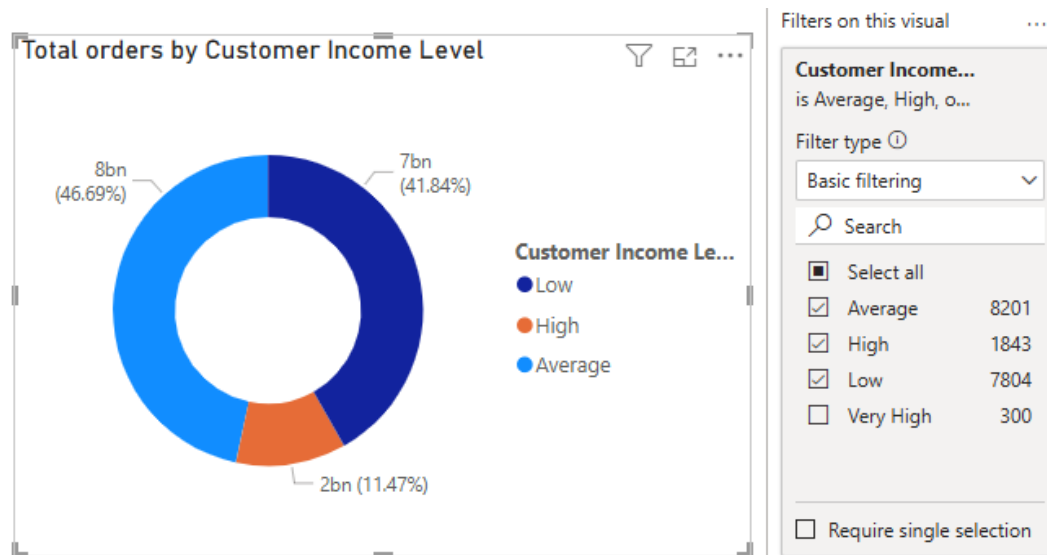


- Add a chart title, turn off the legend, and update the data labels to show the category and value (font size 8, 1 decimal place)

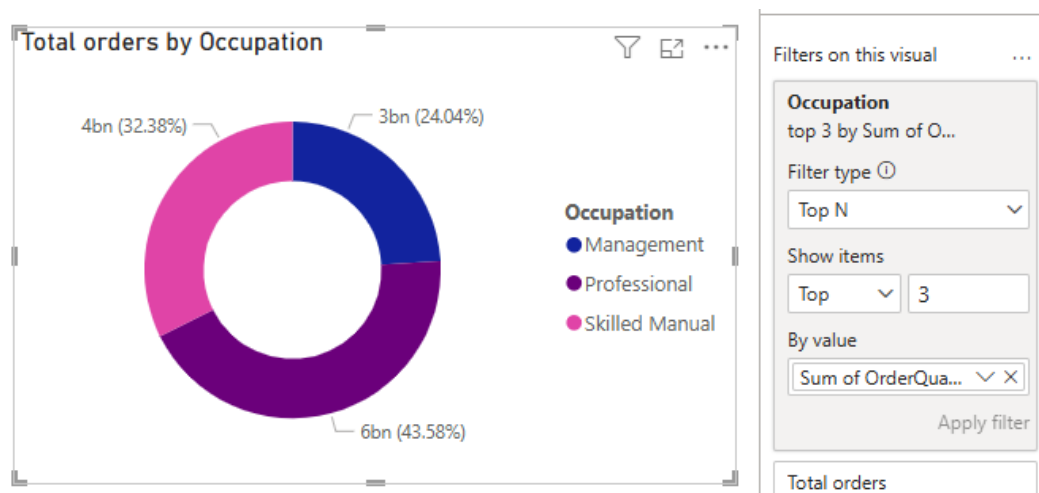
Total orders by Income level



- Add a visual-level filter to exclude customers with a “Very High” income level”



- Copy the chart to show Total Orders by Occupation, and add a visual-level filter to display the three occupations with the most orders



#### d) Tables

- Add a table to the Customer Detail report to show Customer Key, Full Name, Total Orders (as “Orders”) and Total Revenue (as “Revenue”)

CustomerKey	full name	Total Orders	Revenue
11000	JON YANG	10	4,656.39
11001	EUGENE HUANG	15	2,821.21
11002	RUBEN TORRES	3	4,466.81
11003	CHRISTY ZHU	11	4,532.99
11004	ELIZABETH JOHNSON	6	4,568.08
11005	JULIO RUIZ	6	4,502.76
11007	MARCO MEHTA	9	4,590.74
11008	ROBIN VERHOFF	9	4,502.70
11009	SHANNON CARLSON	5	4,471.39
11010	JACQUELYN SUAREZ	5	4,459.10
11011	CURTIS LU	3	4,487.16
11012	LAUREN WALKER	8	91.18
11013	IAN JENKINS	3	41.62
11014	SYDNEY BENNETT	10	190.89
11015	CHLOE YOUNG	4	2,274.38
11016	WYATT HILL	4	2,088.68
11017	SHANNON WANG	4	2,835.41
11018	CLARENCE RAI	9	2,919.33
11019	LUKE LAL	51	961.92
11020	JORDAN KING	3	2,093.06
11021	DESTINY WILSON	4	2,148.05
11022	ETHAN ZHANG	2	2,073.71
11023	SETH EDWARDS	6	142.93
11024	RUSSELL XIE	11	78.02
11025	ALEJANDRO BECK	6	2,975.22
11026	HAROLD SAI	10	2,988.81
Total		84174	2,49,14,586.82

- Use conditional formatting to add light gray data bars to the orders column and a white > blue color scale to the revenue column

CustomerKey	full name	Total Orders	Revenue
11262	JENNIFER SIMMONS	106	1,464.79
11300	FERNANDO BARNES	106	1,839.01
11331	SAMANTHA JENKINS	102	1,739.58
11185	ASHLEY HENDERSON	100	1,716.76
11566	APRIL SHAN	99	1,424.49
11091	DALTON PEREZ	97	1,513.14
11277	CHARLES JACKSON	97	1,776.69
11287	HENRY GARCIA	97	1,442.96
11330	RYAN THOMPSON	97	1,596.61
11223	HAILEY PATTERSON	90	1,615.66
11711	DANIEL DAVIS	89	1,403.85
11176	MASON ROBERTS	88	1,526.03
11200	JASON GRIFFIN	83	1,613.88
11276	NANCY CHAPMAN	76	1,111.23
11505	JASMINE POWELL	61	1,103.52
11631	ANTONIO BENNETT	58	1,001.38
11506	NICHOLAS BROWN	56	934.28
11520	JADA MORGAN	55	1,022.81
11211	SAMANTHA RUSSELL	54	947.96
11502	JARED PETERSON	54	1,051.49
11203	LUIS DIAZ	53	1,002.05
11019	LUKE LAL	51	961.92
11142	EDUARDO PATTERSON	50	1,117.25
11500	SARAH SIMMONS	50	848.91
11212	CHLOE CAMPBELL	48	969.78
11215	ANA PERRY	48	1,335.85
<b>Total</b>		<b>84174</b>	<b>2,49,14,586.82</b>

- Add a visual-level filter (Top N) to show the 100 customers with the most orders, and add a chart title (“Top 100 Customers”)

**Top 100 Customers**

CustomerKey	full name	Total Orders	Revenue
11439	JANET MUNOZ	19	12,015.40
11641	JAMES CHEN	19	436.27
11820	KATELYN LOPEZ	19	347.87
11833	OSCAR PRICE	19	367.49
12147	TAYLOR PATTERSON	19	328.61
12158	KYLE PHILLIPS	19	265.38
13259	ALLEN GARCIA	19	4,080.44
14084	ROBERT LAL	19	265.72
14185	FRANK VAZQUEZ	19	9,051.92
14276	MELODY SUAREZ	19	5,118.50
14567	SETH THOMAS	19	234.68
16096	KENNETH SHE	19	350.22
17385	GRACE MARTINEZ	19	332.24
17387	AIDAN ALEXANDER	19	308.40
18758	DEVIN PRICE	19	265.17
11240	ANNE HERNANDEZ	20	4,011.86
11709	HAILEY COLLINS	20	443.58
11719	BLAKE GREEN	20	403.83
11738	ELIJAH ALEXANDER	20	437.72
11823	MORGAN TURNER	20	237.30
12308	MARGARET HE	20	9,266.75
12939	EDUARDO PARKER	20	270.20
<b>Total</b>		<b>3764</b>	<b>1,90,016.49</b>

Filters on this visual

**CustomerKey**  
top 100 by Sum of...

Filter type ①  
Top N

Show items  
Top 100

By value  
Sum of OrderQua... X

Apply filter

full name  
is (All)

Revenue  
is (All)

Total Orders  
is (All)

Add data fields here

- Sort the table descending by orders

**Top 100 Customers**

CustomerKey	full name	Total Orders	Revenue
11262	JENNIFER SIMMONS	106	1,464.79
11300	FERNANDO BARNES	106	1,839.01
11331	SAMANTHA JENKINS	102	1,739.58
11185	ASHLEY HENDERSON	100	1,716.76
11566	APRIL SHAN	99	1,424.49
11091	DALTON PEREZ	97	1,513.14
11277	CHARLES JACKSON	97	1,776.69
11287	HENRY GARCIA	97	1,442.96
11330	RYAN THOMPSON	97	1,596.61
11223	HAILEY PATTERSON	90	1,615.66
11711	DANIEL DAVIS	89	1,403.85
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11631	ANTONIO BENNETT	58	1,001.38
11506	NICHOLAS BROWN	56	934.28
11520	JADA MORGAN	55	1,022.81
11211	SAMANTHA RUSSELL	54	947.96
11502	JARED PETERSON	54	1,051.49
11203	LUIS DIAZ	53	1,002.05
11019	LUKE LAL	51	961.92
<b>Total</b>		<b>3764</b>	<b>1,90,016.49</b>

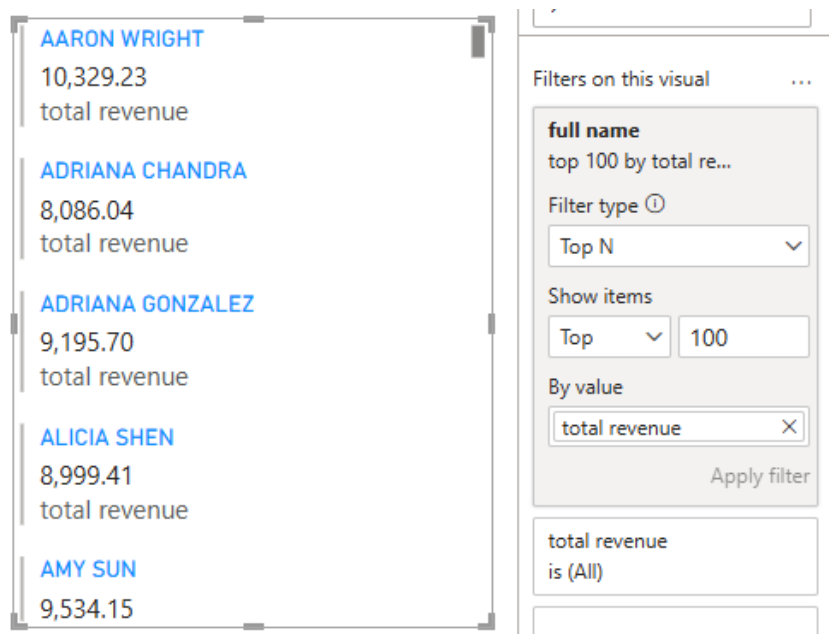
### e) Top N cards

- Add a card to the Customer Detail report to show Full Name

# AARON ADAMS

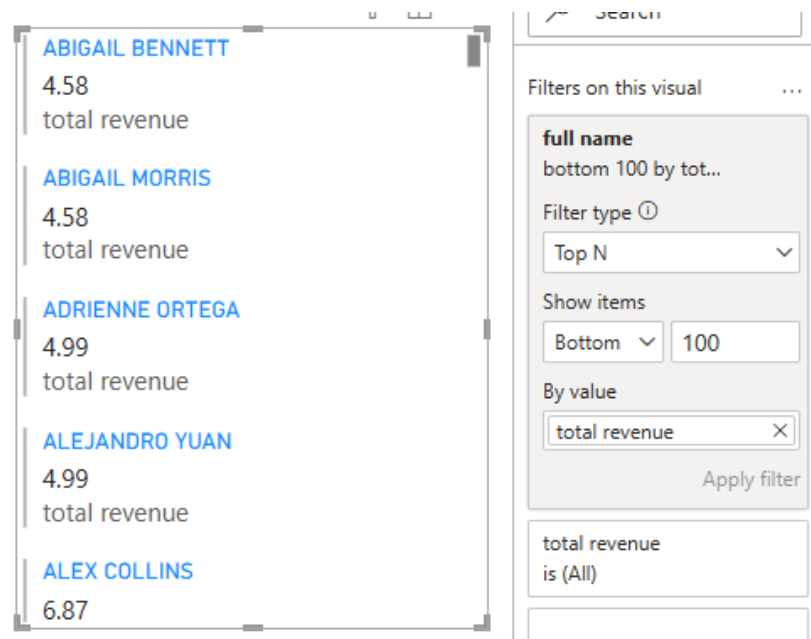
Full name

- Add a visual-level filter (Top N) to show the top customer (Full Name) in terms of Total Revenue





- What do you notice when you filter the report for low income customers?



The screenshot shows a list of customers and their total revenue. The filter pane on the right is set to 'full name' with a 'bottom 100 by tot...' filter type. The 'Filter type' is set to 'Top N'. The 'Show items' dropdown is set to 'Bottom' and the value is '100'. The 'By value' dropdown is set to 'total revenue'. The 'Apply filter' button is visible. Below the filter pane, the text 'total revenue is (All)' is displayed.

Customer Name	Total Revenue
ABIGAIL BENNETT	4.58
ABIGAIL MORRIS	4.58
ADRIENNE ORTEGA	4.99
ALEJANDRO YUAN	4.99
ALEX COLLINS	6.87

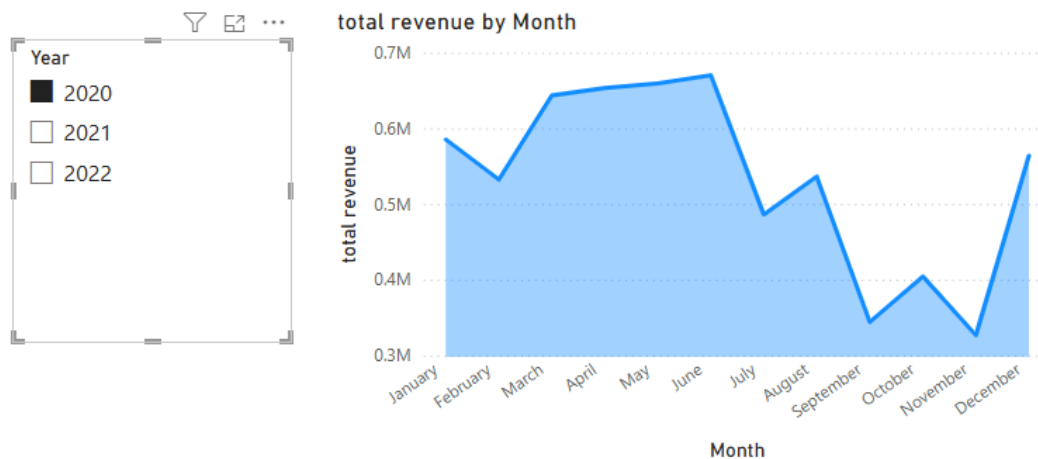
- How could you modify the Top N filter to correct this?

AARON WRIGHT		
12650	10,329.23	
CustomerKey	total revenue	
ADRIANA CHANDRA		
14181	8,086.04	
CustomerKey	total revenue	
ADRIANA GONZALEZ		
12300	9,195.70	
CustomerKey	total revenue	
ALICIA SHEN		
13575	8,999.41	
CustomerKey	total revenue	
AMY SUN		

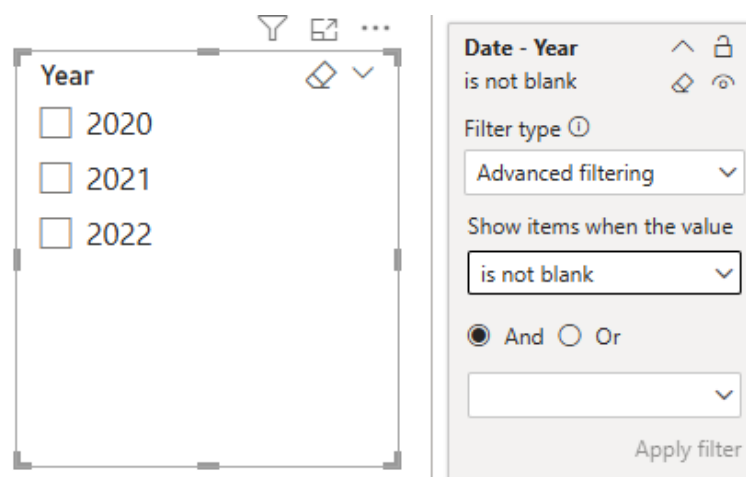
For removing the duplicate customer names, just add the customer key as another field to correct this in Top N filter.

#### f) Slicers

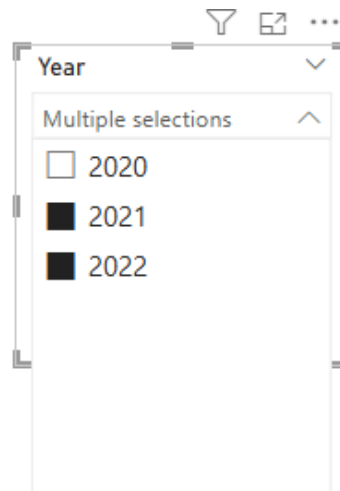
- Add a slicer to filter the Customer Detail report page by Year



- Add a visual-level filter to exclude blanks

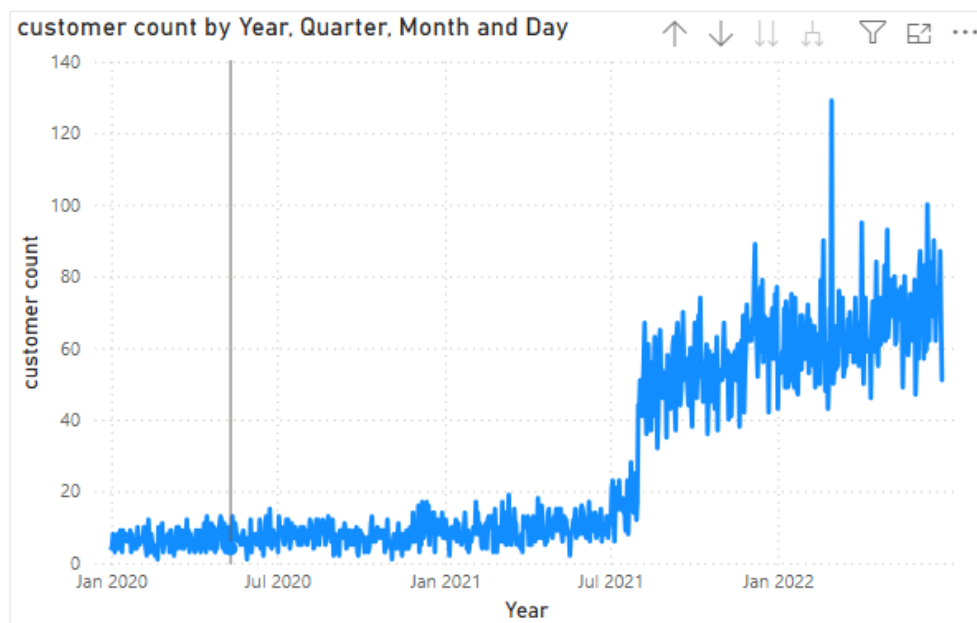


- Choose any slicer style that allows users to filter individual years or across multiple years

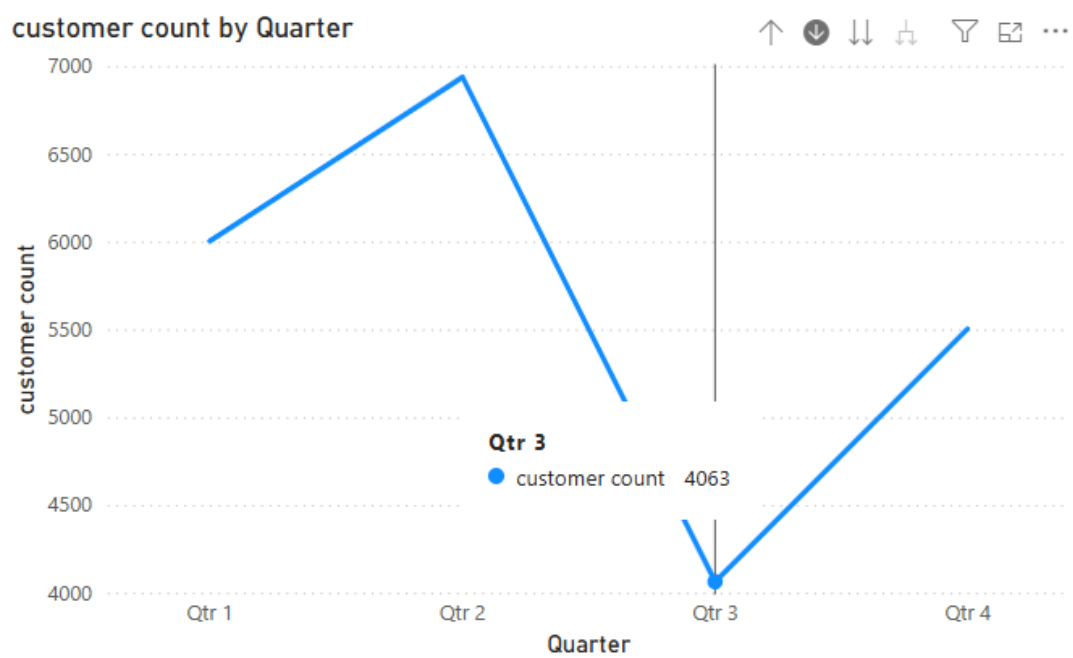
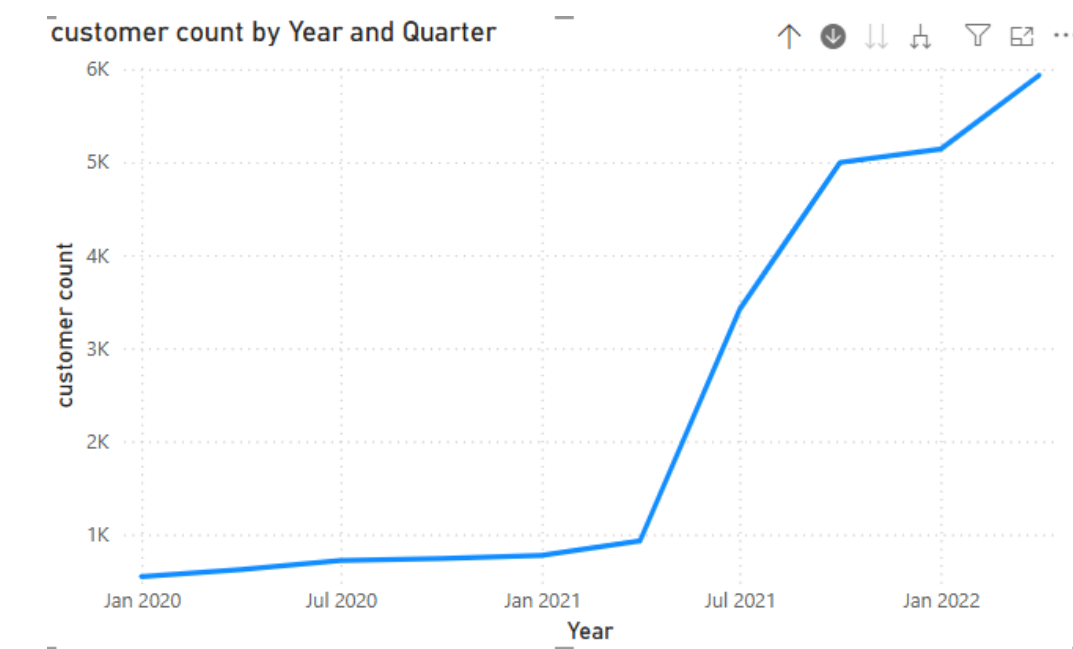


### g) Drill Down

- In the Customer Detail report, update the X-axis of the line chart to pull in Date Hierarchy

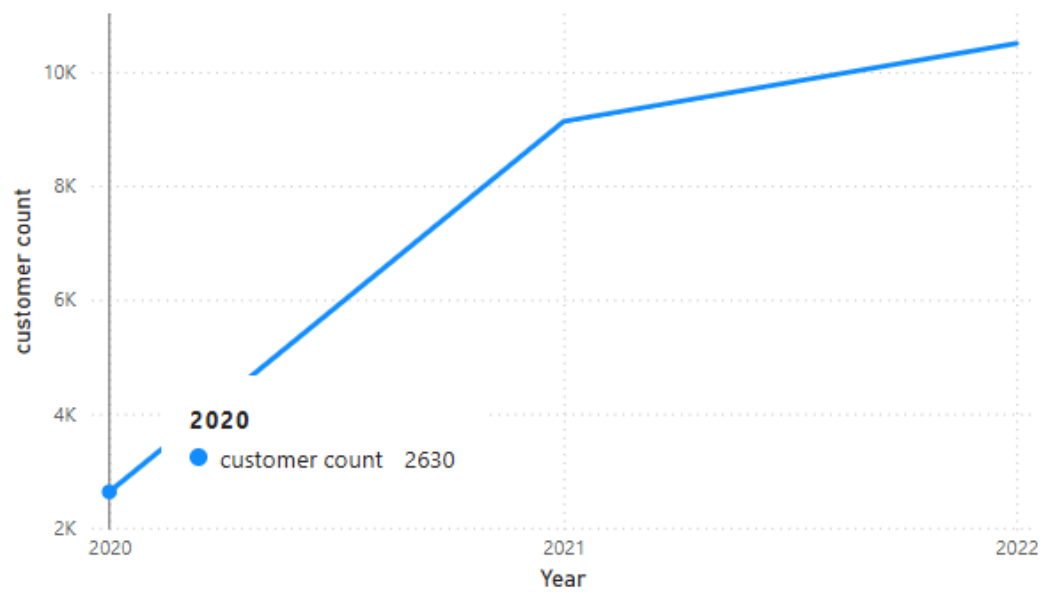


- Use the chart header to drill up and drill down to explore trends at each level of granularity

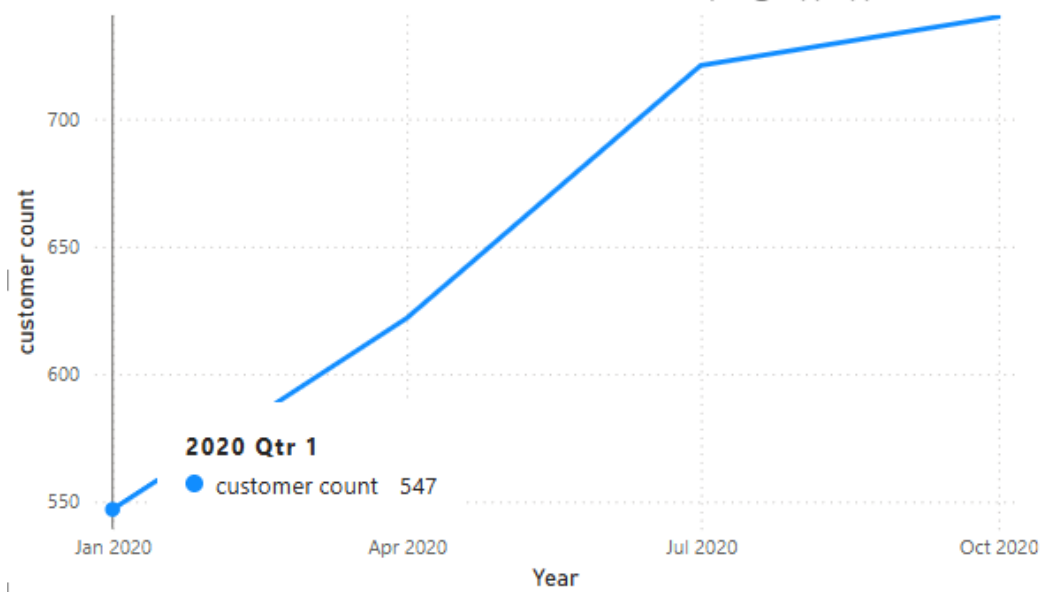


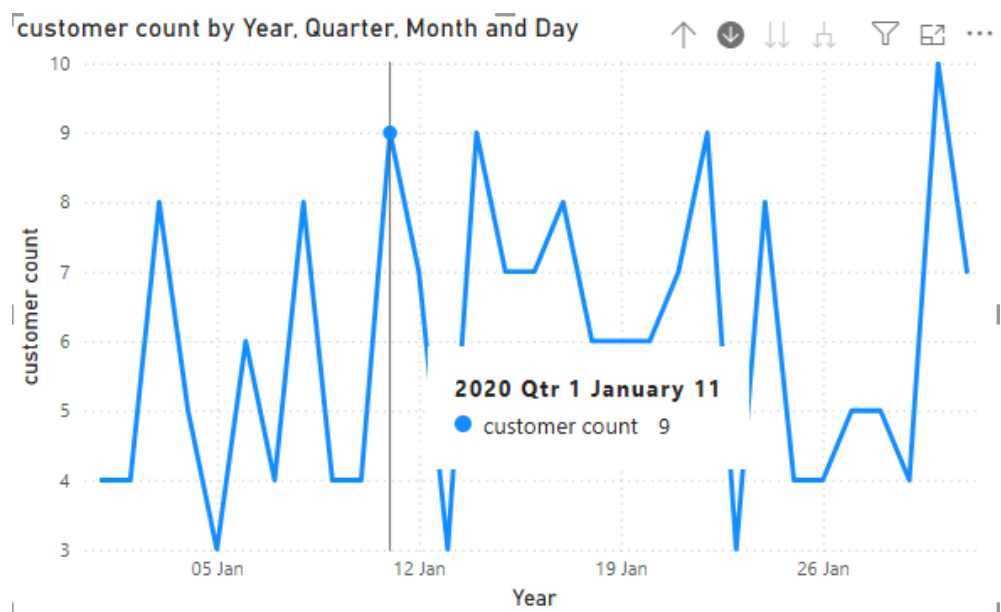
- Test drill mode to change the granularity by selecting individual data points in the chart

customer count by Year



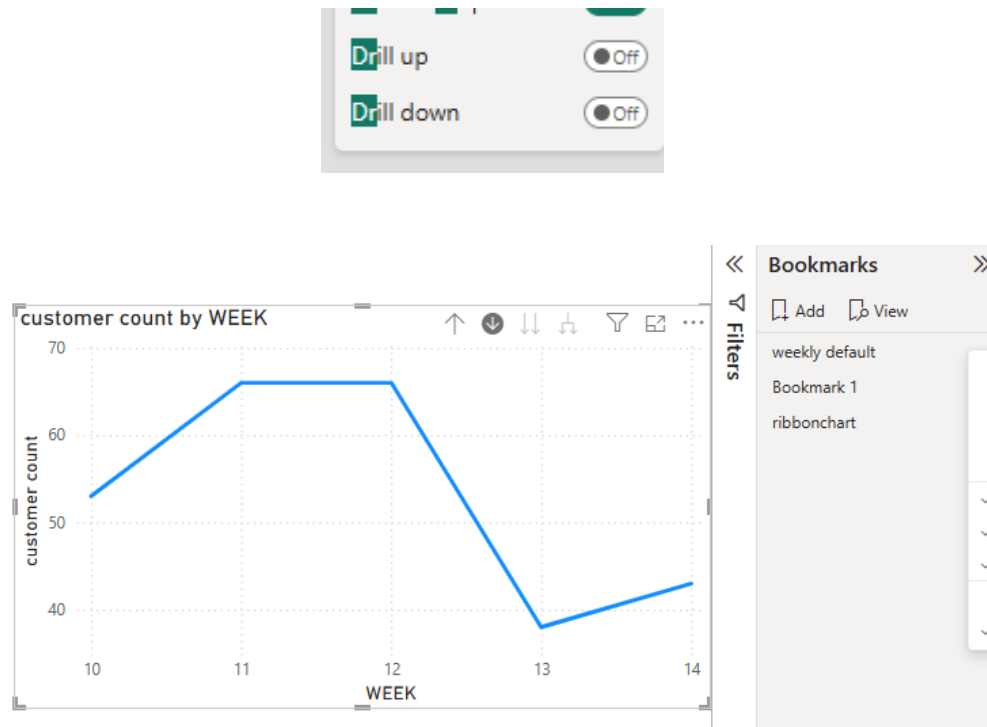
customer count by Year and Quarter





So we have checked the drill mode to change the granularity by selecting individual data point on 2020 Qtr 1 January 11.

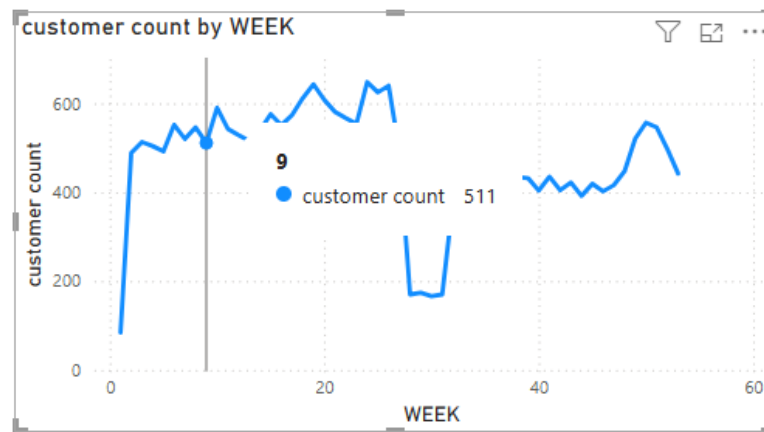
- Turn off drill mode and show the chart at a weekly level of granularity by default



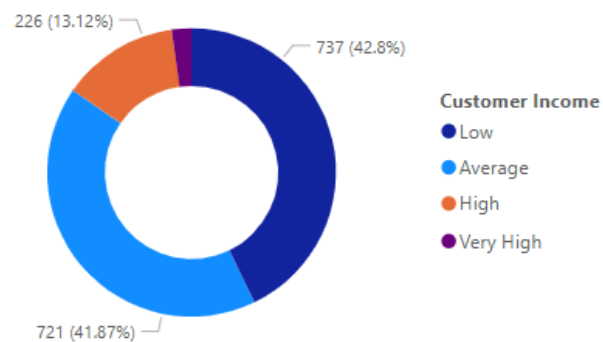
By adding a bookmark it will always filter customer count by week by default.

## h) Report Interactions

- On the Customer Detail tab, edit the report interactions based on the following logic:  
 → When a filter is applied to the line chart, the donut charts should filter (not highlight)

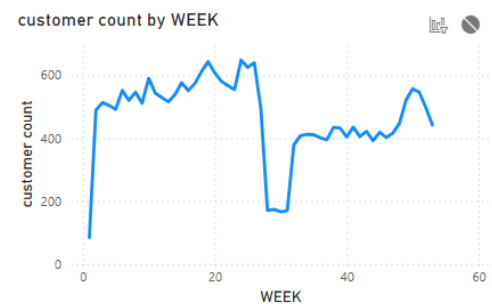


Sum of OrderQuantity by Customer Income

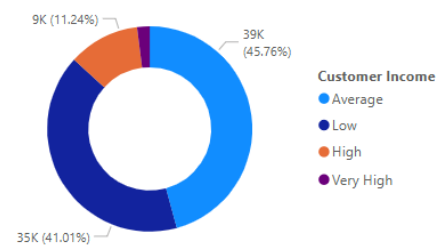


→ When a filter is applied to the table, the line chart and donuts should not filter

CustomerKey	full name	Sum of OrderQuantity	total revenue
11000	JON YANG	10	4,656.39
11001	EUGENE HUANG	15	2,821.21
11002	RUBEN TORRES	3	4,466.81
11003	CHRISTY ZHU	11	4,532.99
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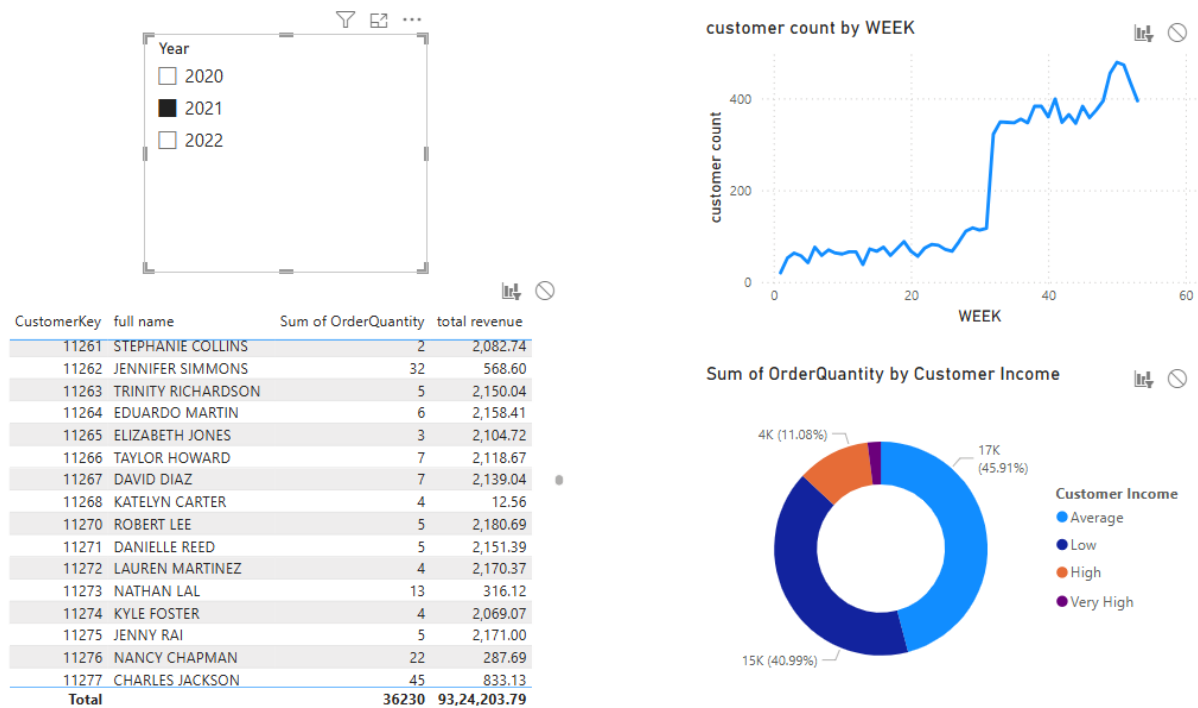
Sum of OrderQuantity by Customer Income





The filtering interaction for these visuals are disabled as we selected the "None" icon (a circle with a diagonal line through it) above the line chart and donut chart.

→ The slicer should filter all visuals on the report page



The filtering interaction for the slicer with all other charts were enabled so when I select different year, the change is reflected in all other charts too.