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Lab 4:

Create Data Visualization for E-commerce Dashboard
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Question:

- (i) create KPI for YTD Sales and YTD Profit
- (ii) Create chart matrix by category name,YTD,PYTD ,YOY sales,and sales trends
- (iii) create map chart by region and YTD Sales
- (iv)Create Bar chart for YTD sales for Top 5 Product name
- (v))Create Bar chart for YTD sales for Bottom 5 Product name
- (vi) create pie chart for region and YTD sales
- (vii) create donut chart for Shipping type and YTD Sales

Step 1 : Add both CSV file

Step 2: Modeling ->new table

- Write formula

```
mycalander = CALENDAR(min(ecommerce_data[order_date]),TODAY())
```

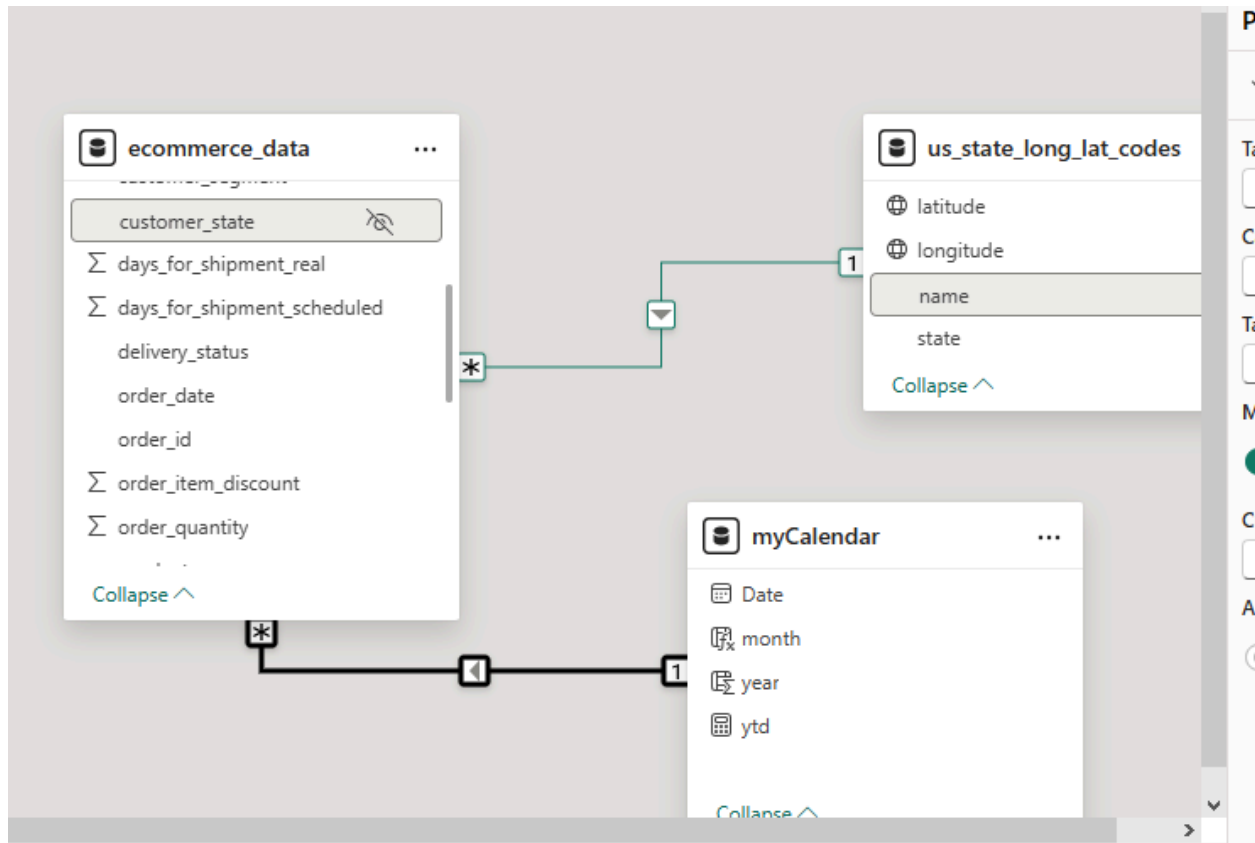
- Add column and add formula

```
year = YEAR(mycalander[Date])
```

- Add month same way

```
month = FORMAT(mycalander[Date],"mmm")
```

Step 3: Open data modeling and connect name to customer state and date to oder_date

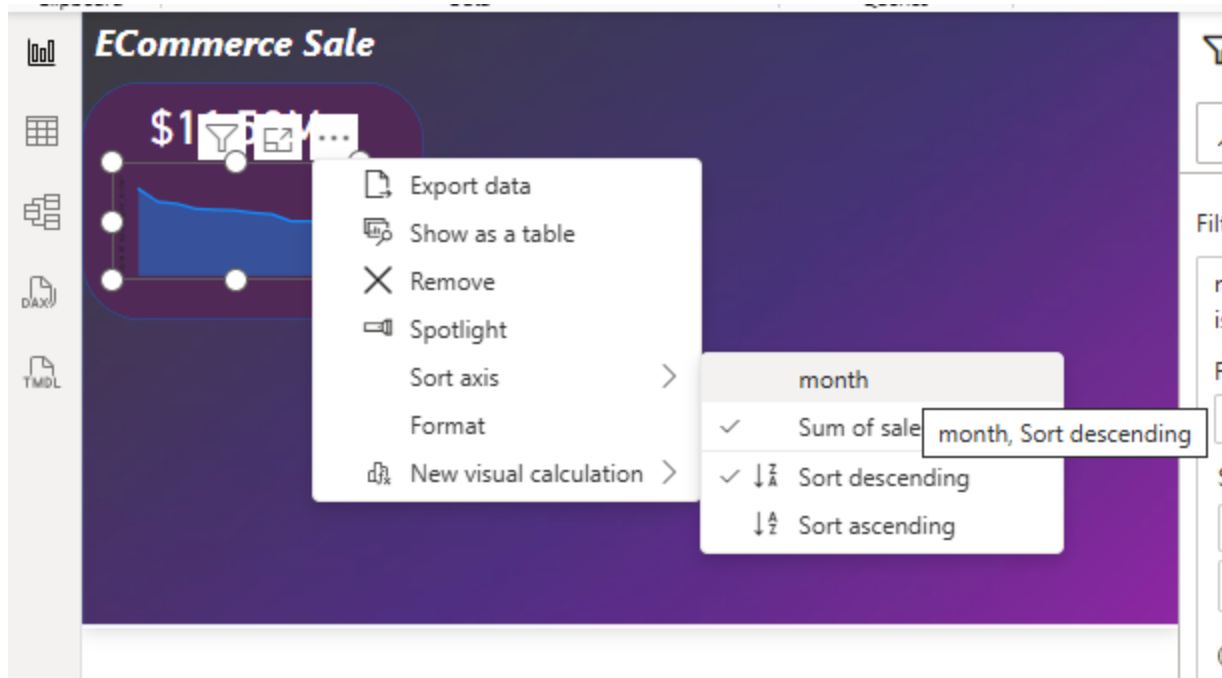


Step6: create report view

- Create measure year to date (YTD) sale

```
YTD sale=
TOTALYTD(
    SUM(ecommerce_data[sales_per_order]),
    ecommerce_data[order_date]
)
```

- Select card and drag this measure
 - Select measure from data and format it from menu tab measure tools and add \$
 - Create Area chart use filter for 2022 x: month from mycalander and sales_per_orde from y axis and add filter year from my calendar by drag and drop
 - Sort axis by month, off title ,x and y axis



- Create PYTD (Previous year to date) sales

```
PYTD Sales =
CALCULATE(SUM(ecommerce_data[sales_per_order]),DATESYTD(SAMEPERIODLASTYEAR(ecommerce_data[order_date])
))
```

- Create YOY(year of year sale) or growth change

current-previous/previous

```
YOY sale = ([YTD Sales]-[PYTD Sales])/[PYTD Sales]
```

- Create trends by creating positive and Negative icon

```
Sales Trend =
```

```

VAR pos_icon = UNICHAR(9650) -- Up Arrow ▲
VAR neg_icon = UNICHAR(9660) -- Down Arrow ▼
VAR result = IF([YOY sale] > 0, pos_icon, neg_icon)
RETURN result

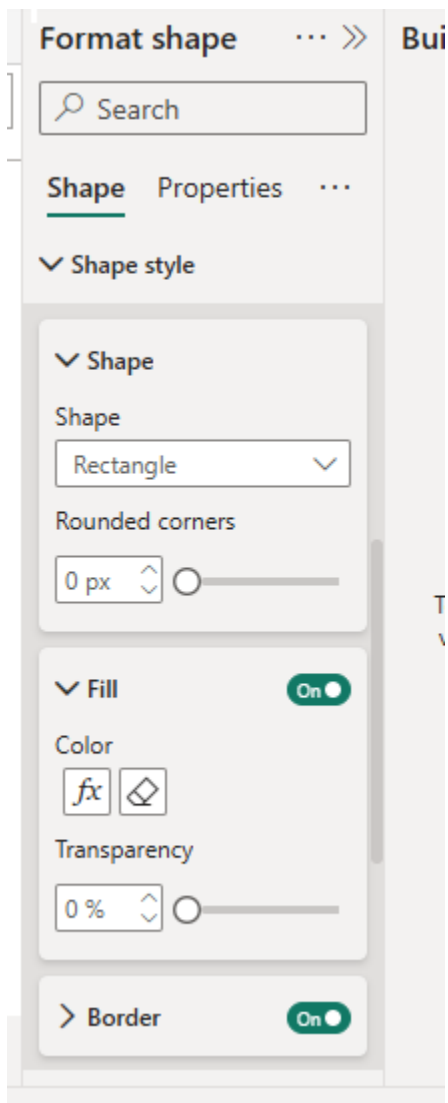
```

- Create colour for shape as per trends which change dynamic on +ve and -ve value

Create measure:

```
Icon clr = if([YOY sale]>0, "green","red")
```

- Select shape and fill choose fx



- In fx choose as following

Fill color - Shape style - Fill

Format style

Rules

What field should we base this on?

Icon clr

Rules

Reverse color order

+ New rule

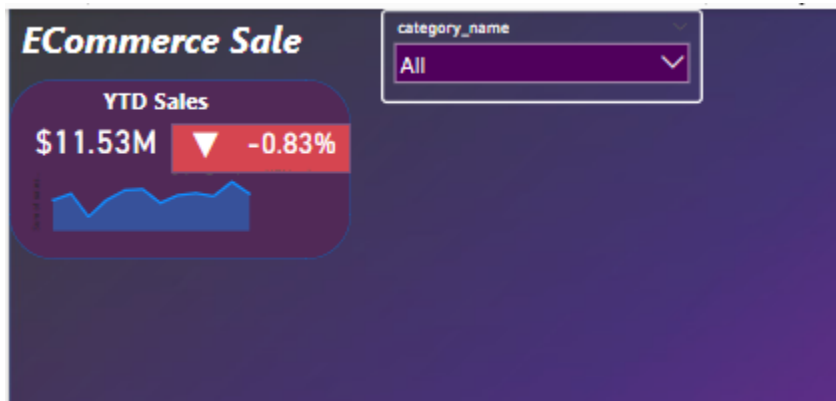
If value	is	green	then			
If value	is	red	then			

[Learn more about conditional formatting](#)

OK

Cancel

- Add slicer for category name



Step 7: create other visual YTD Profit:

- Duplicate first visual

- Create measure for profit

```
YTD Profit =
TOTALYTD(
    SUM(ecommerce_data[profit_per_order]),
    ecommerce_data[order_date]
)
```

- Change area chart as well for profit_per_order
- Like PYTD sales create measure for PYTD Profit

```
PYTD Profit =
CALCULATE(SUM(ecommerce_data[profit_per_order]),DATESYTD(SAMEPERIODLASTYEAR(ecommerce_data[order_date])))
```

- Create measure YoY profit

```
YOY Profit = ([YTD Profit]-[PYTD Profit])/[PYTD Profit]
```

- Create icon for profit Trend

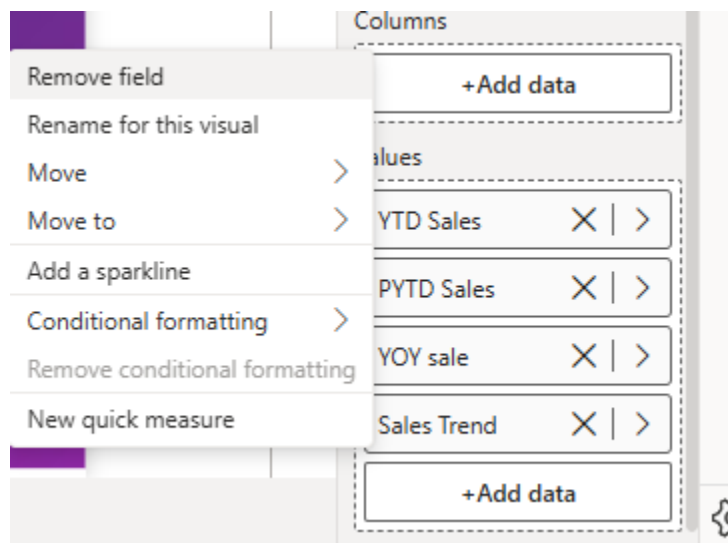
```
Profit Trend =
VAR pos_icon = UNICHAR(9650) -- Up Arrow ▲
VAR neg_icon = UNICHAR(9660) -- Down Arrow ▼
VAR result = IF([YOY Profit] > 0, pos_icon, neg_icon)
RETURN result
```

- Create profit clr measure and change in shape fill

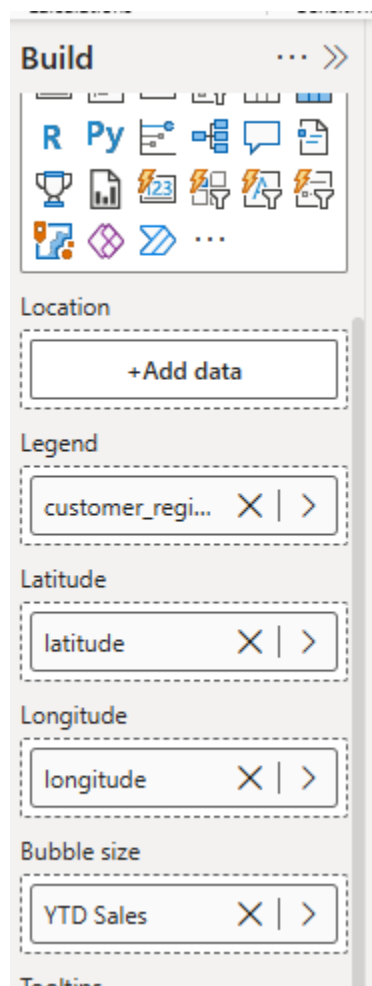
```
Profit_icon_clr = if([YOY Profit]>0, "green","red")
```

Step 2: Create chart matrix by category name,YTD,PYTD ,YOY sales,and sales trends

- Choose specific column and change formatting for YTD and PYTD
- Data format change to whole number
- Select chart and from build Right click on sales Trend ->conditional formatting->font colour and give rule for icon colour

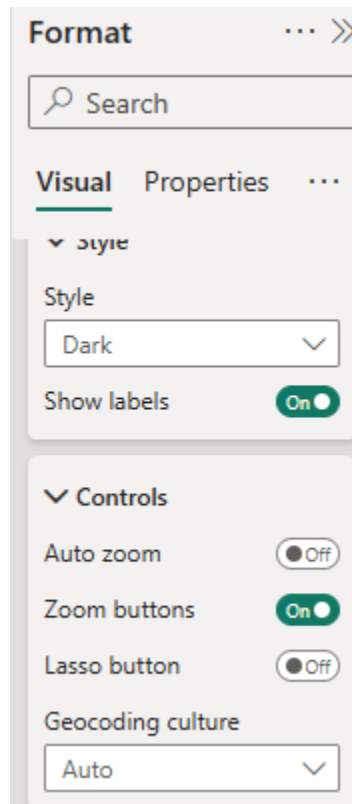


(iii) Map chart



- Formatting from map setting change road to dark

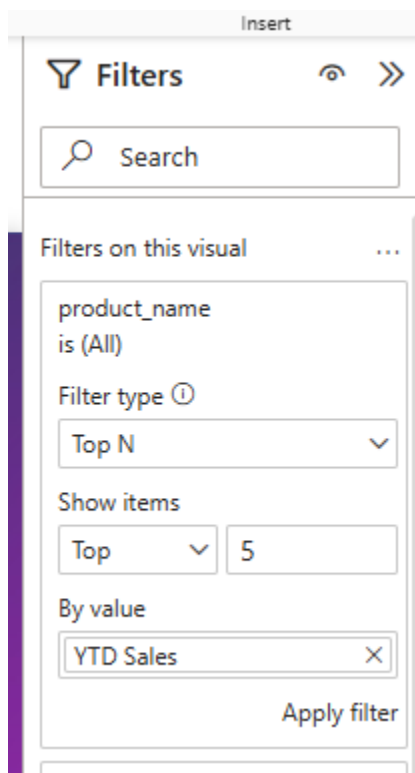
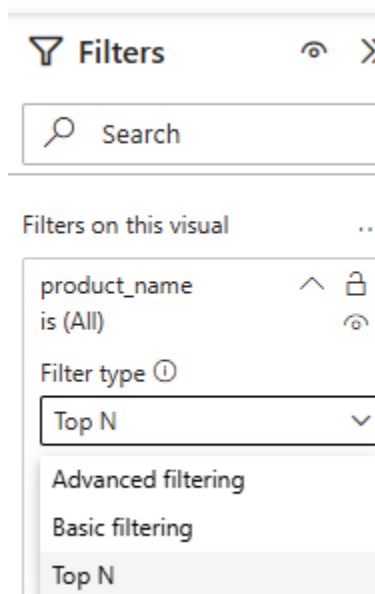
- Controls and add zoom button



- Do formatting and Add profit in tooltip under map from build

(iv) Create Bar chart for YTD sales for Top 5 Product name

(v) Create Bar chart for YTD sales for Bottom 5 Product name



Click apply filter

(vi) create pie chart

Legend

customer_regi...
X | >

+Add data

Values

YTD Sales
X | >

+Add data

(vii) create donut chart for Shipping type and YTD Sales

Legend

shipping_type
X | >

+Add data

Values

YTD Sales
X | >

+Add data

Details

+Add data

- Add slicer for customer segment of type tile



