

KUHDSE221F-014 - Udara Ekanayake

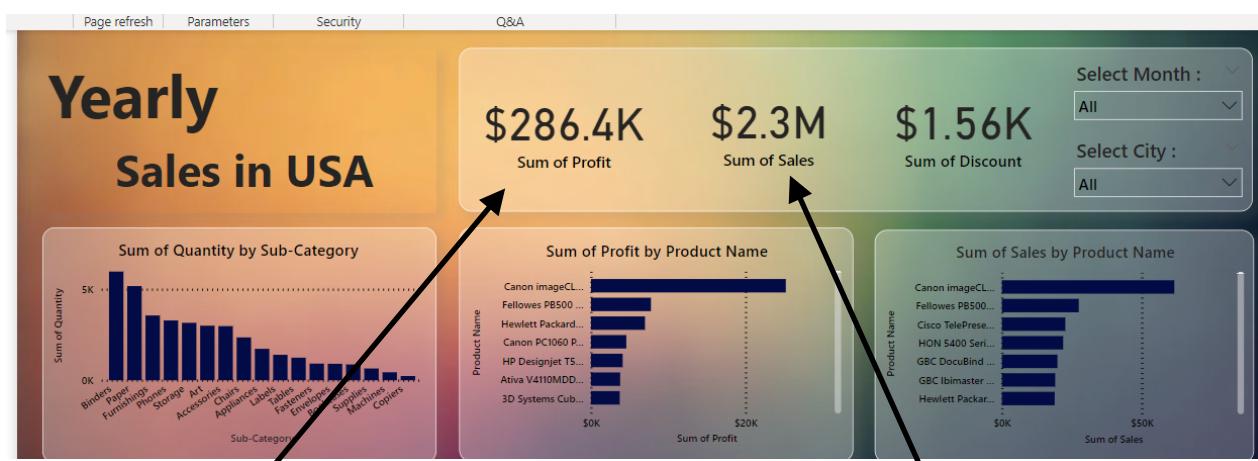
[Click here to view Power BI dashboard](#)

Part 01

- (i) A slicer that offers a high-level overview of sales performance over time and allows you to adjust the order date using months.



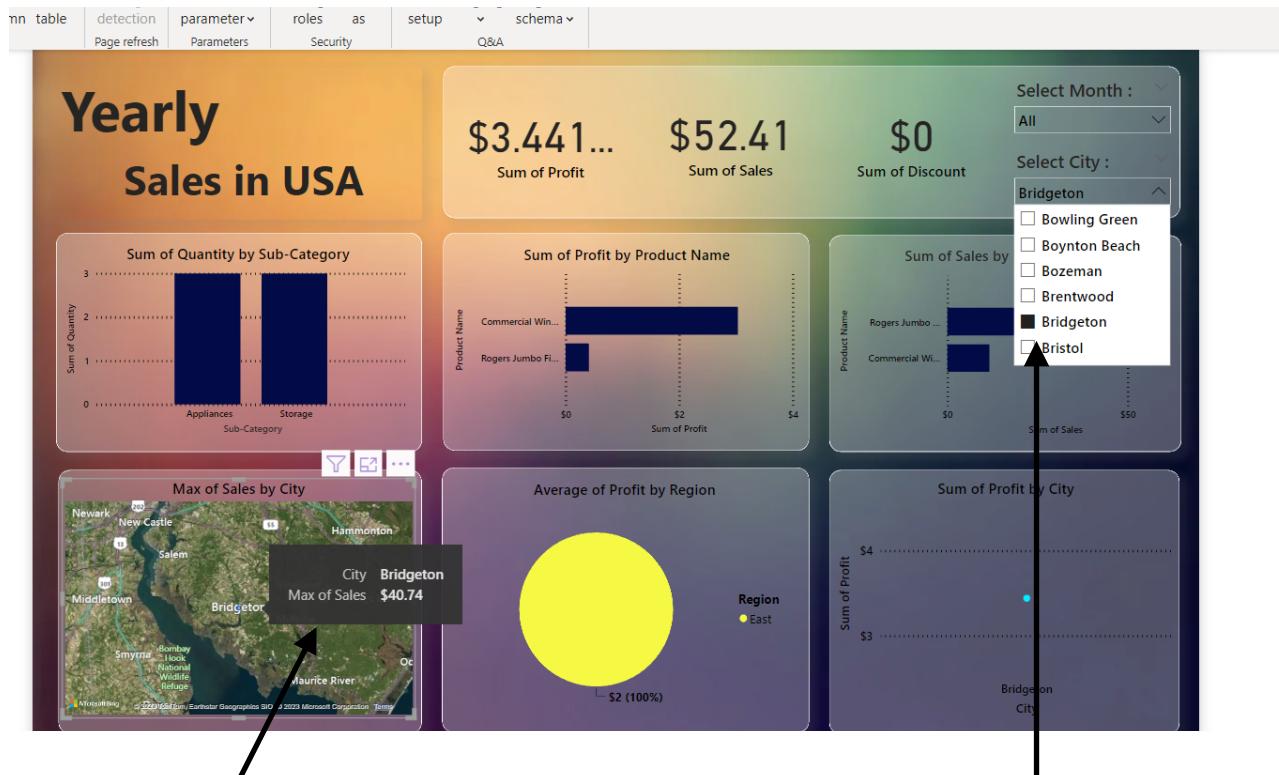
- (ii) Cards that give a rapid snapshot of the overall performance by showing the total sales and total profit.



In here the dashboard shows total profit of USA in given years.

In here the dashboard shows total sales of USA in given years.

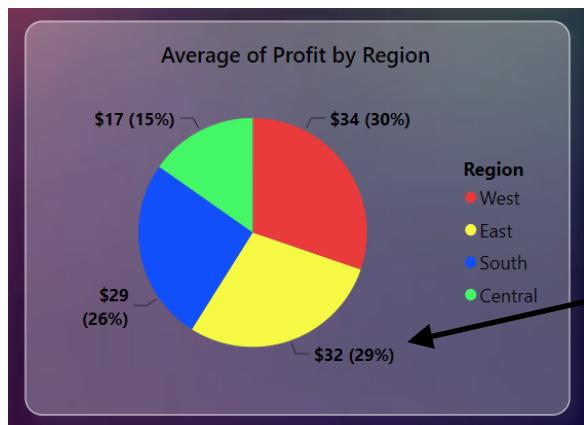
(iii) A map visualization that aids in pinpointing the dataset's cities with the highest sales.



In here city and its max sales will show in the map after selecting the city using slicer.

User can select a city to predict sales performance by city.

(iv) A pie chart that shows the average profit by region, enabling you to study the data by place.



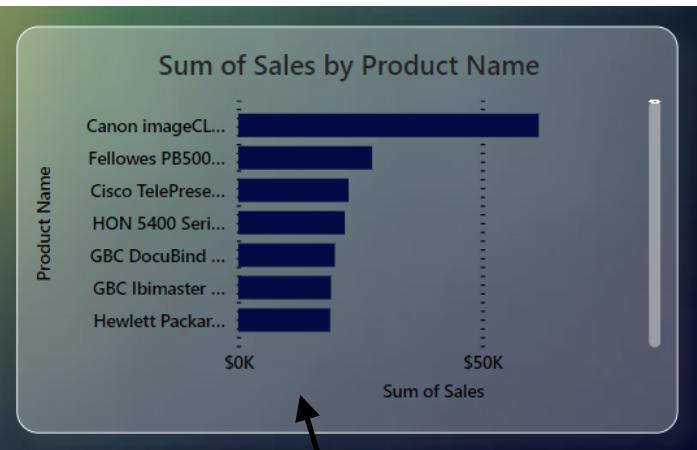
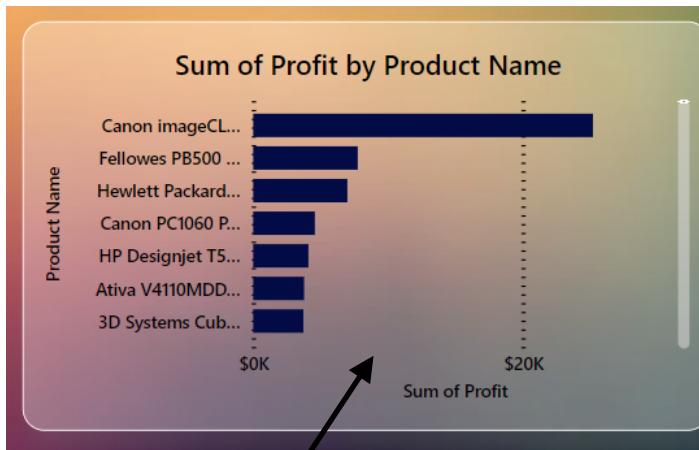
Average profit of each region shows here.
(As well as it as a percentage)

(v) A stacked column chart that displays the quantity totaled by subcategory and offers insights into the sales patterns of various products.



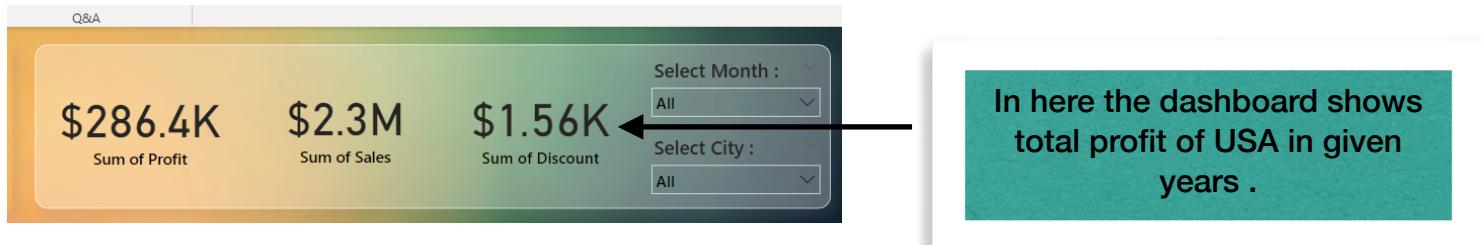
In here user can see total quantity of each subcategory.

(vi) Four additional dataset-based visualizations that offer further information about the data.

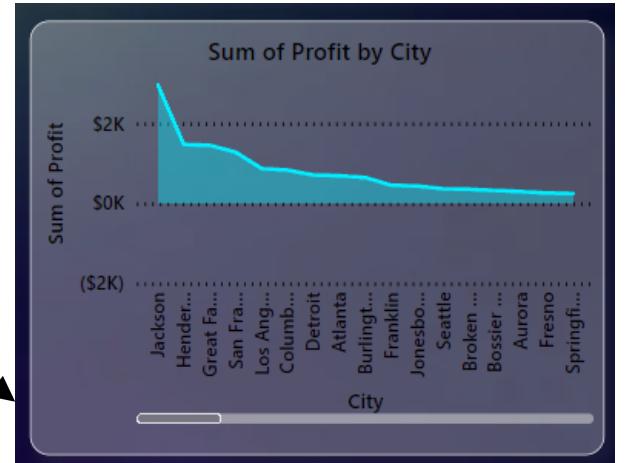


Total profit of each product displayed here in a stacked bar chart
(x axis - Total profit , y axis - Product name)

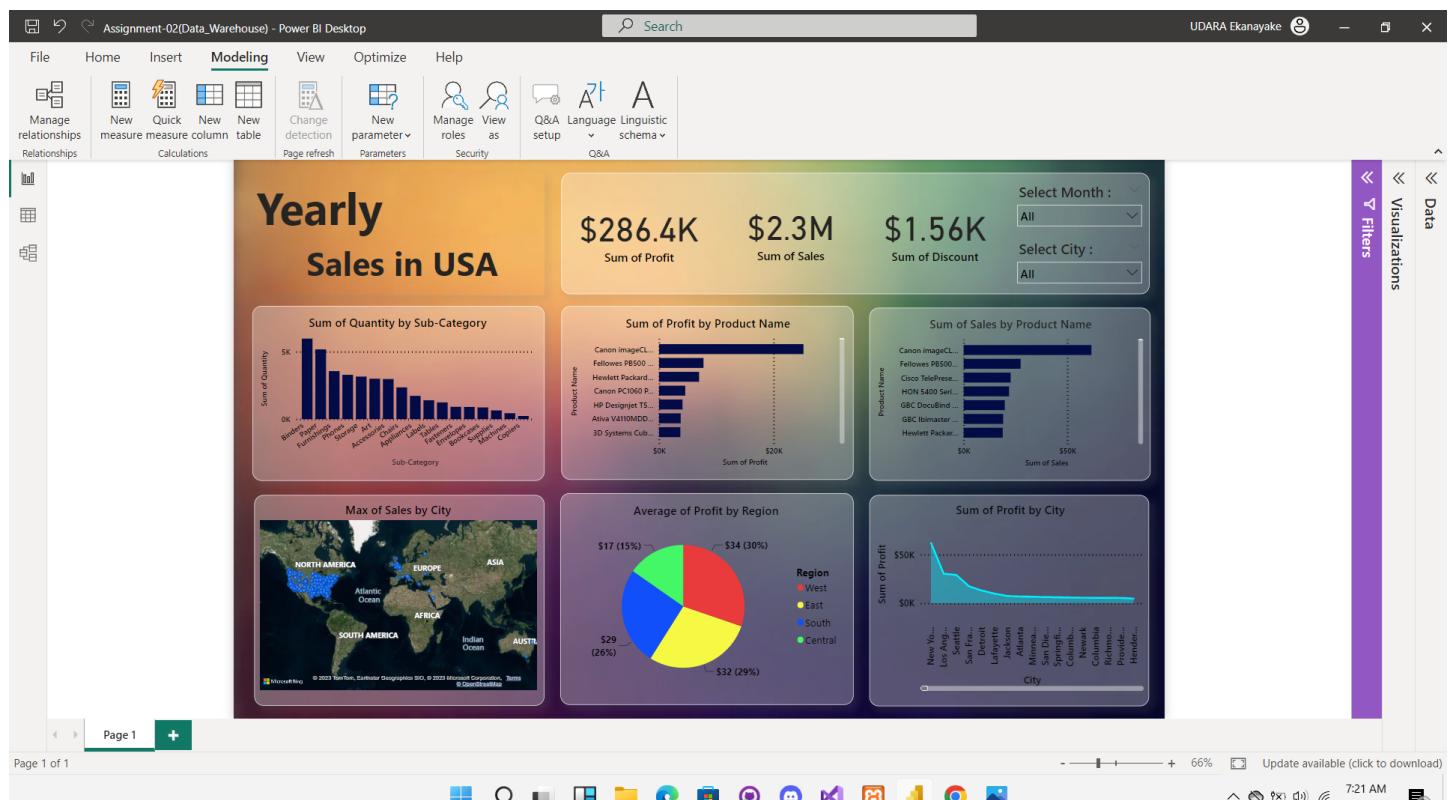
Total sales of each product displayed here in a stacked bar chart
(x axis - Total sales , y axis - Product name)



Total profit of each city displayed here in an area chart
(x axis - City , y axis - Sum of Profit)



(vii) The dashboard has been designed to be visually appealing, with a consistent color scheme and easy-to-read fonts, making it easy to use and interpret the data.



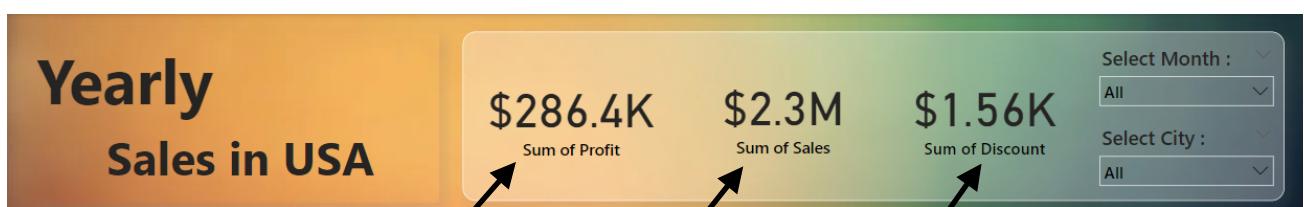
- I used here dark colours for the fonts in white blurred background.
- Therefore the user can easily read those values in any kind of external light condition.
- I used colourful background image for the canvas give a better look and feel experience for the user.

Part 02

(i). Interpretation and Image of each visualization.

-Done

(ii). Define the data set insight (patterns or trends).



1

1
Sum of Profit is calculate using below equation
 $(\text{Profit} = \text{Selling Price} - \text{Cost Price})$

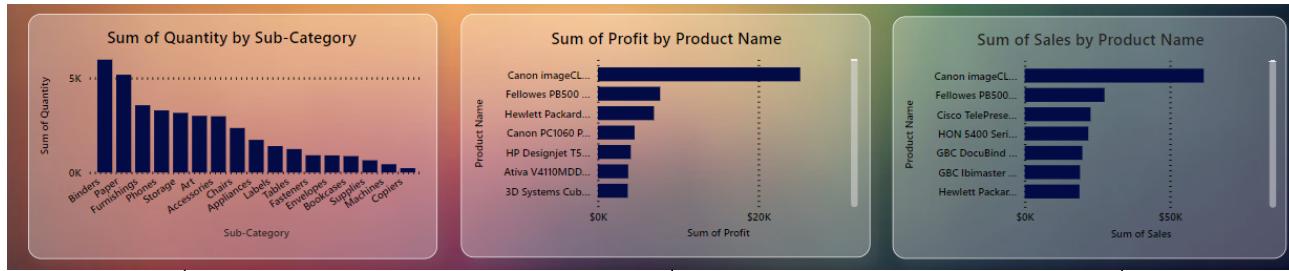
$$\sum \text{Profit} = \sum \text{Selling Price} - \sum \text{Cost Price}$$

2

2
To calculate Sum of Sales we need to get the summation of each sales (Total Sales)
 $(\sum \text{Selling Price})$

3

3
To calculate Sum of Discount we need to get the summation of each discount (Total Discount)
 $(\sum \text{Discount Price})$



4

5

6

4

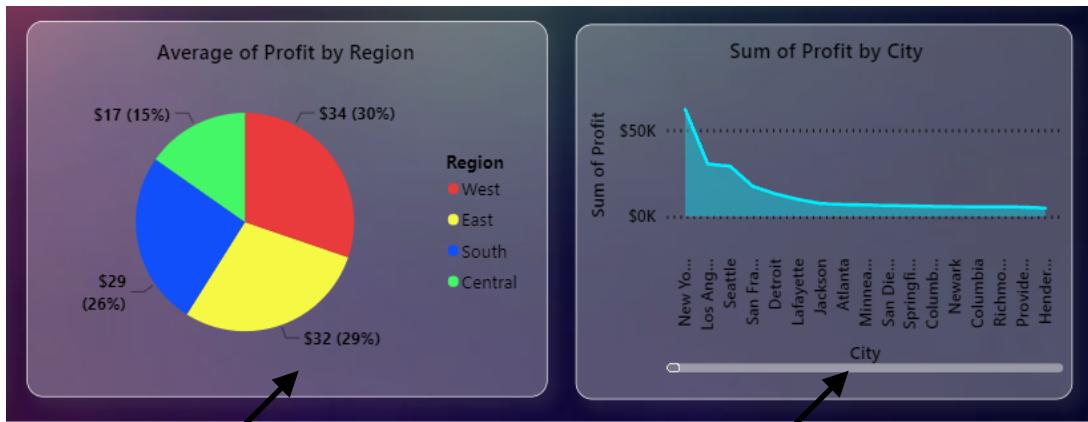
The chart shows variation between sub-category and total quantity. The vertical axis shows sum of Quantity and horizontal axis shows sub-category. In the above Stacked column chart sub-category Binders has maximum number of quantity while sub-category Copiers has lowest quantity. Art and accessories sub-categories have equal total quantity. Starting with the second highest sub-category called paper , the graph gradually decrease to machine sub-category and in that area sum of quantity vary between the 5k and 0k limits. Only the binders sub-category has crossed the 5k mark.

5

This shows variation between product name and summation of those products. The horizontal axis shows sum of profit and vertical axis indicate product name. In the above stacked bar chart Canon image product has highest profit while Cubify CubeX 3D printer has lowest profit. Cisco Telepresence System and HON 5400 series task chairs products slightly have same profits. From second highest profitable product called Fellowes PB500 , the graph rapidly decrease to the bottom of the chart. Profits are vary between -8000\$ and 25000\$ limits approximately. Only the Canon image product has crossed the 20k profit range.

6

This stacked bar chart shows variation between products and total sales of those products. The horizontal axis shows sum of sales and vertical axis indicate product name. In the above chart Canon image product has highest sales while Eureka Disposable Bags has lowest sales. GBC Ibimaster 500 and Hewlett Packard Laserjet 3310 copier products slightly have same sales. From second highest sale product called Fellowes PB500 , the graph rapidly decrease to the bottom of the chart. Sales are vary between 1\$ and 61000\$ limits approximately. Only the Canon image product has crossed the 50k sale range.



7

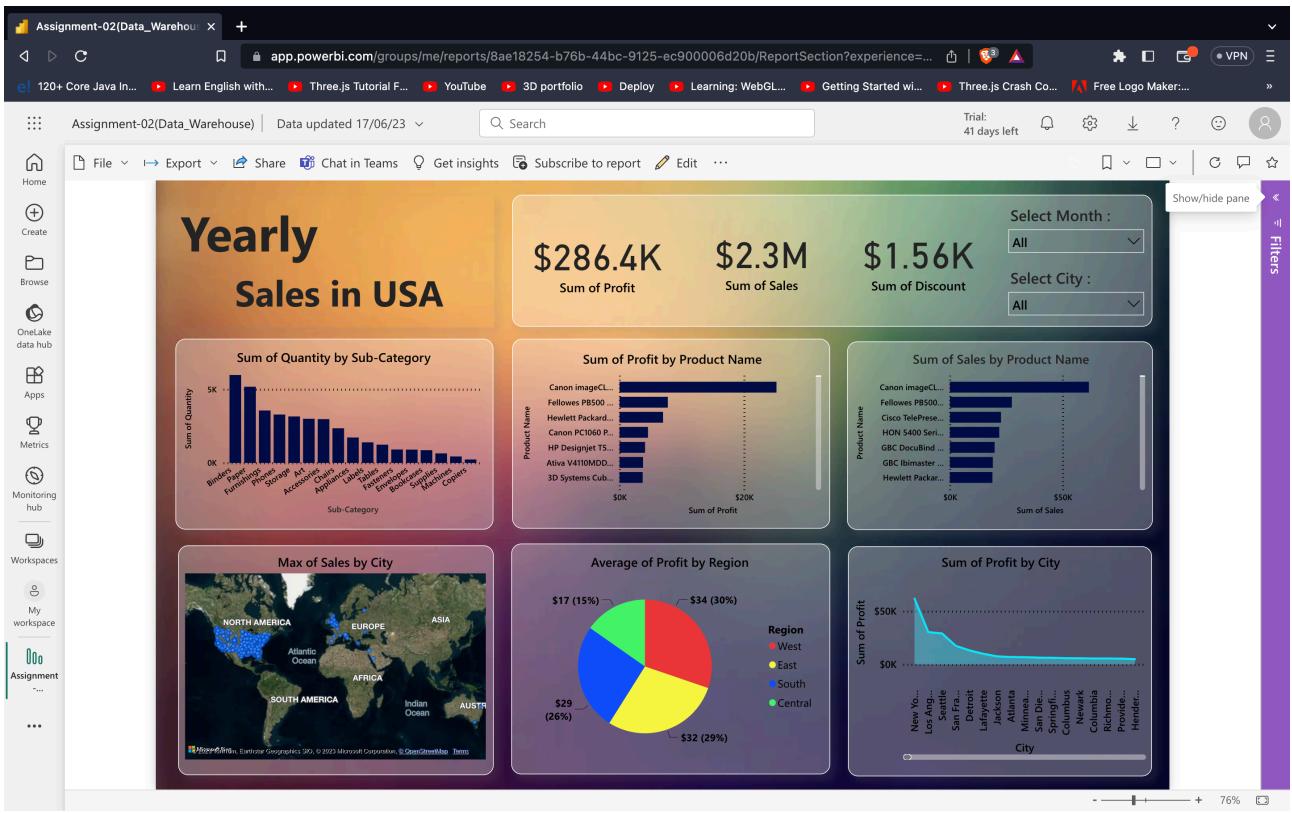
8

7

Given pie chart shows the average profit of each region in USA. From the pie chart it is clear that the West region has maximum average profit which hold 30% of this chart and the average profit in that region is 34\$. Lowest average profit bear by Central region as 15% and it is 17\$. In South and East regions slightly covered similar area in the pie chart but there is 3% difference between them. The average profit of South and East regions are \$29 , \$32 respectively. As a percentage it is 26% and 29% respectively.

8

When we consider this area chart we can clearly see that the New York city has the highest profit among all of other cities. It crossed the 50k profit limit line. When it comes to the Los Angeles the total profit rapidly decrease from \$62,036 (New York City total profit) to \$30440. From that we can see that half of the total profit has been reduced when it comes from New York to Los Angeles. From Seattle to Roswell , the summation of profit was slowly decrease to near the 0k mark. Then until Round Rock city line moves parallel to and close to the 0k limit. Then it passes 0k and moves in negative direction till Philadelphia where it has the lowest profit which is \$13837.



- After made this report I published it to the Power Bi.
- Path - My workspace/Assignment-02(Data_Warehouse).
- After all I shared the link on the top of this report as a hyperlink text.