# Contents

Visualizing Data

Power BI is primarily a data visualization tool so this is an important topic to learn all major features of this aspect.

Create and format interactive visualizations

First, we will explore all different types of visualizations offered by Power BI.

1. Stacked Bar Chart – This allows you to create a bar chart with the breakdowns (field in legend) stacked on top of each other. It can be used to show total sales with breakdown by products or regions.
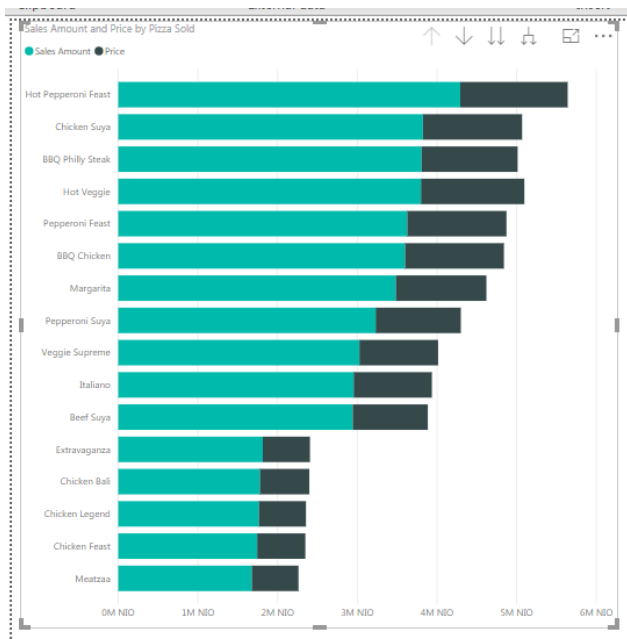

2. Stacked column chart – Technically same as the Stacked Bar Chart, just the orientation is different. Its bars are vertical.
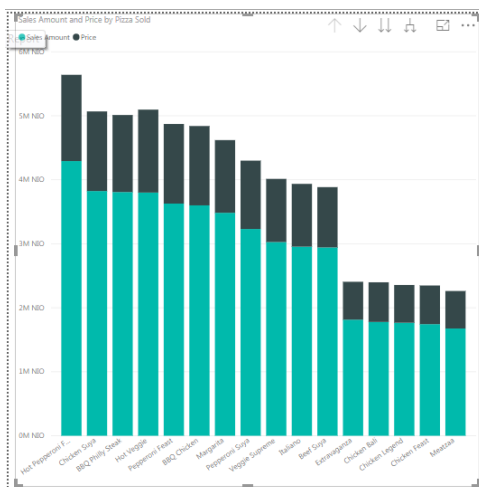

3. Clustered Bar Chart – The difference between this and the stacked one is that it has the breakdowns (legend values) plotted on independent bar rather than stacked one on another.
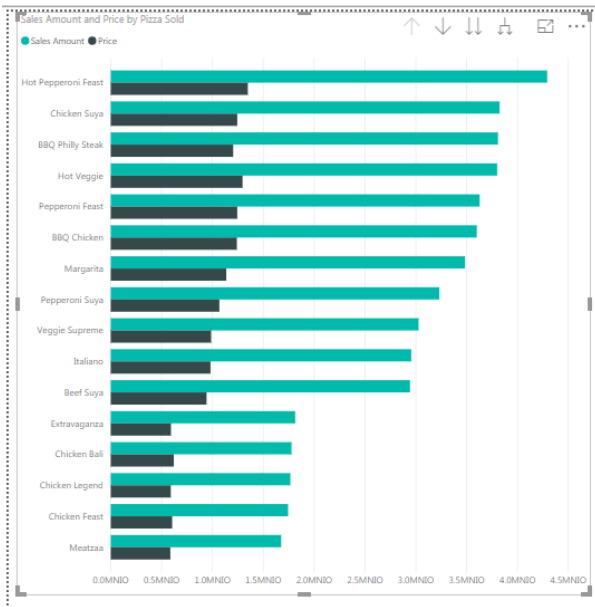
4. Clustered Column Chart – The difference between this and the stacked column chart is that it has the breakdowns (legend values) plotted on independent bars rather than stacked one on another.
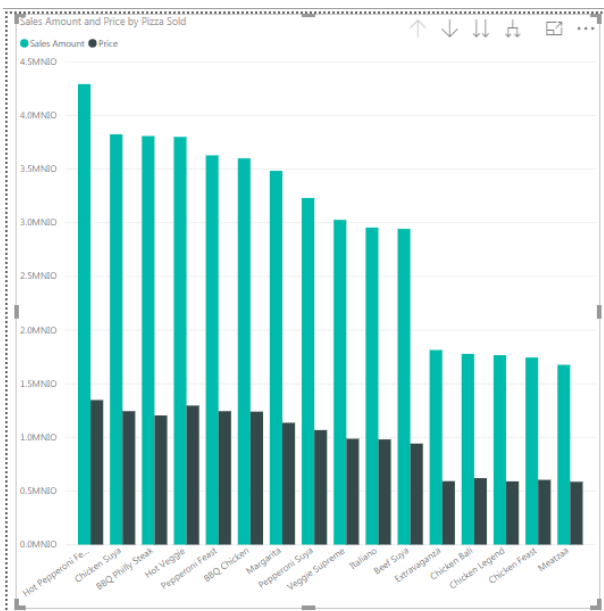

5. 100% Stacked Bar Chart – This has legend values (breakdown) expressed as percentages of the total value per axis item. Useful for showing relative contribution of sales by the different branches to total sales by the different branches to total sales each day/month.
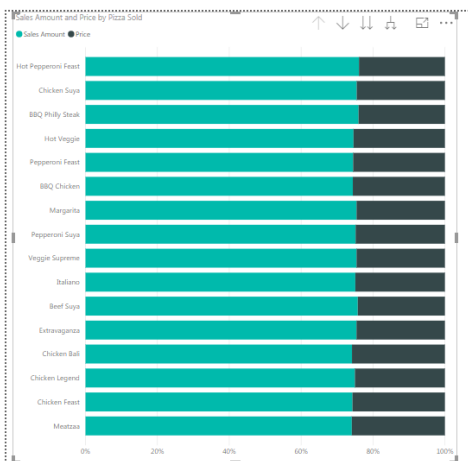
6. 100% Stacked Column Chart – It is the column version of the 100% Stacked Bar Chart.
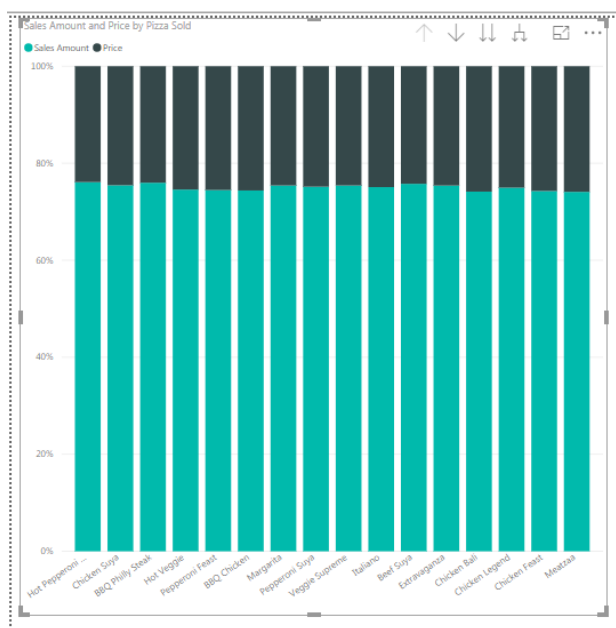
7. Line Chart – Has all the components of the Bar/Column chart except the Color Saturation. This is used to show trend (change over time) so you should always put a date or time field in the axis.
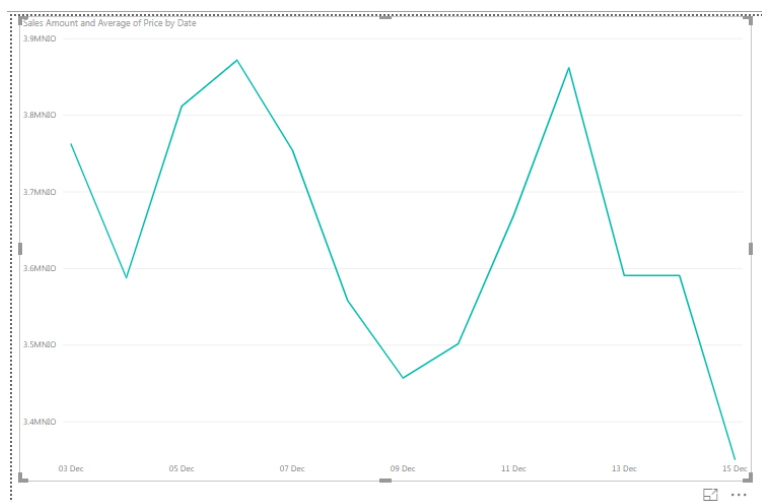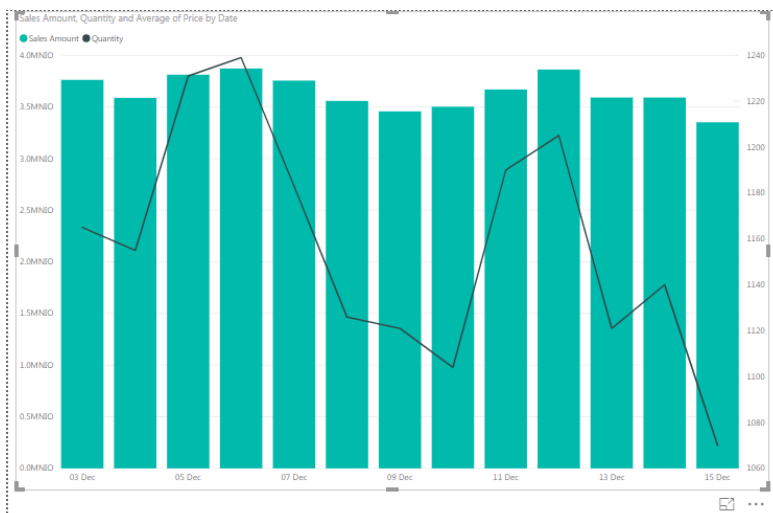

8. Area Chart – It is like line chart but with the area under the lines shaded. Has same components as the line chart.
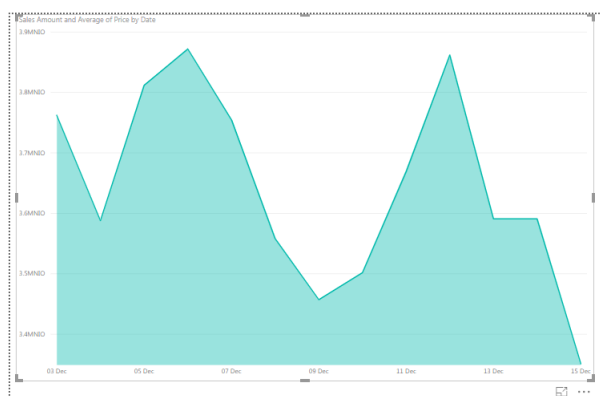
9. Stacked Area Chart – This is area chart where you stack the legend entries one on other.
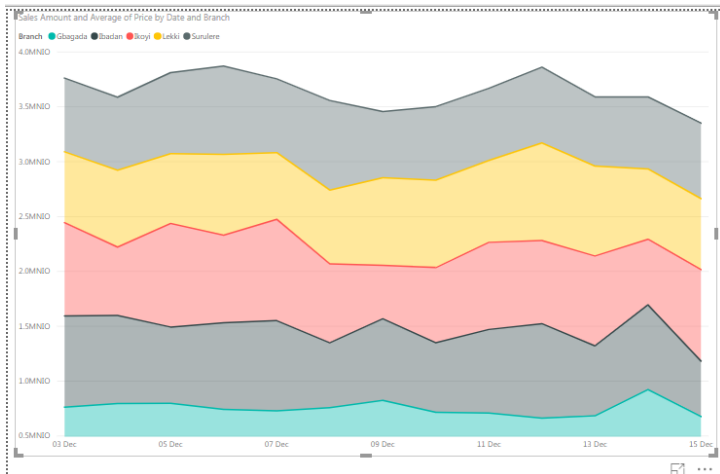

10. Line and Stacked Column Chart – This is a combo chart in the same visual. Useful for showing two distinct insights in one visual – like the gross margin as a line chart and the revenue as a column chart over a period of time.


11. Line and Clustered Column Chart – Again, just like the line and stacked column one except that the columns aren't stacked.
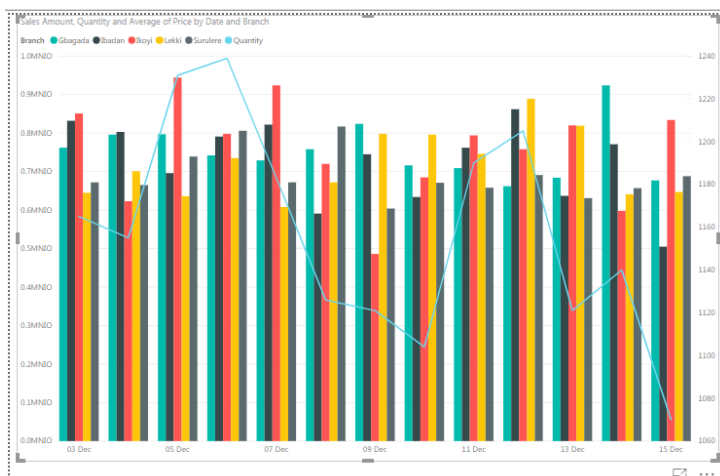
12. Ribbon Chart – This chart is a lot like the area chart but with added advantage that it makes it easier to see the changes in the values of the entries in the legend.
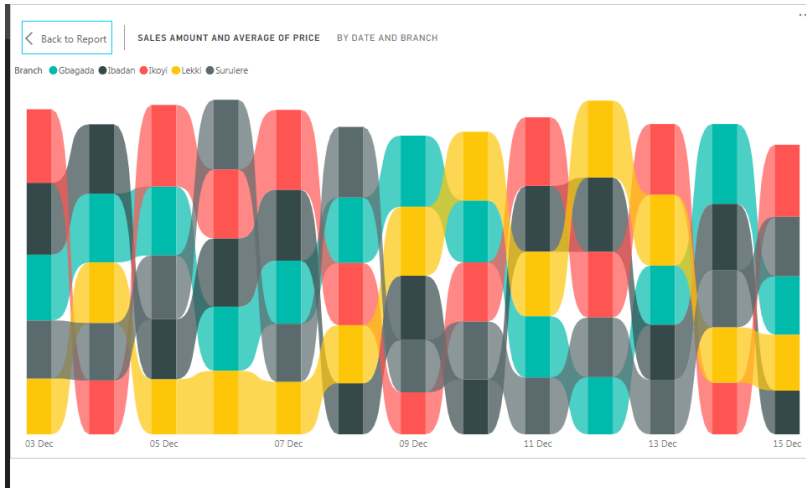
13. Waterfall Chart – This chart is for showing movement in a metric over a period of time, emphasizing the initial value and the end value. It is often used to present changes in a company's cashflow from opening to closing over a financial period.
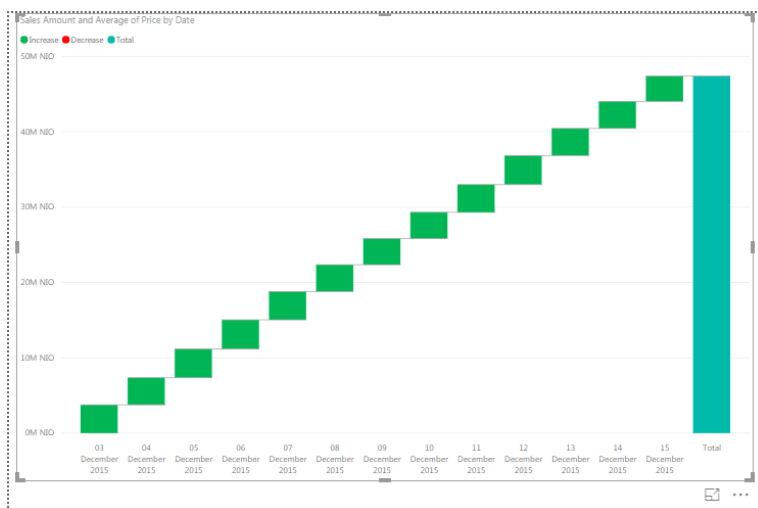
14. Scatter Chart – This chart is for showing the relationship between two variables. That is why it requires you to put a field on X-axis and another in Y-axis. It can also serve as bubble chart for which, you need to drag the field to determine the bubble size into Size parameter.
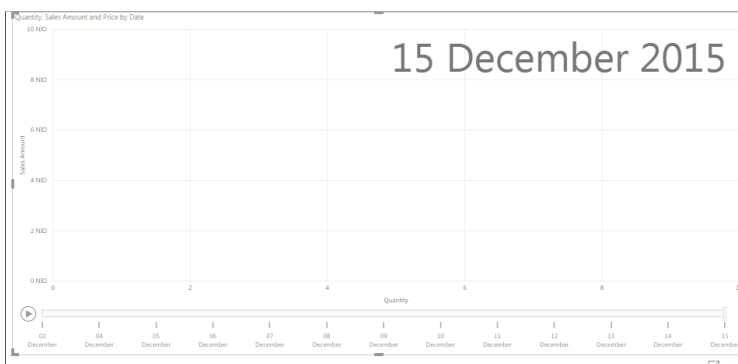
15. Pie Chart – This chart shows relative contribution of entries in the field put in the Legend to the field put in the Values. You can also put a field with additional useful information in the details.
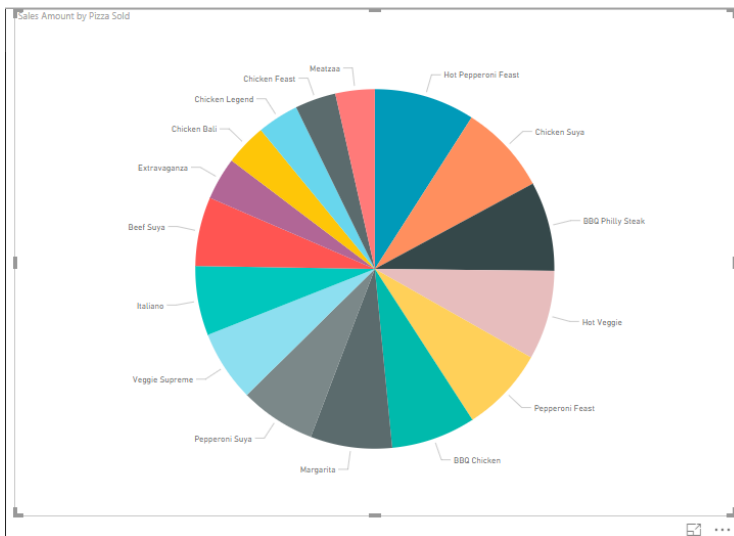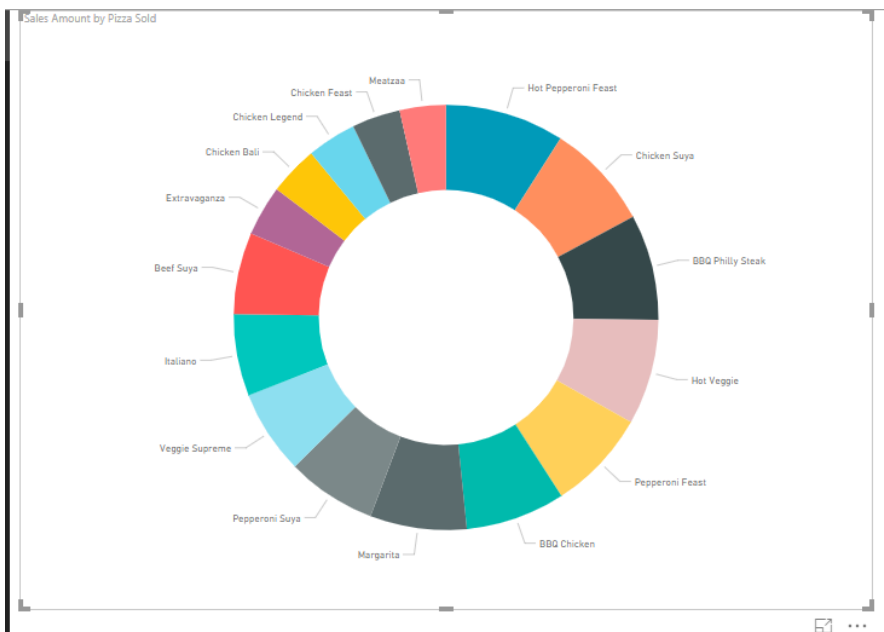

16. Donut Chart – It is a pie chart that is presented in a donut shape.

17. Treemap – This chart shows relative contribution but unlike pie chart that fits everything in a big circle this one fits everything in a resizable rectangle.
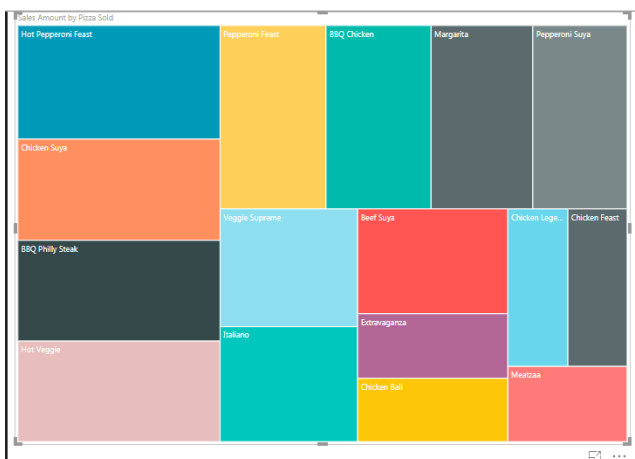
18. Map – Represents data on a real world map.
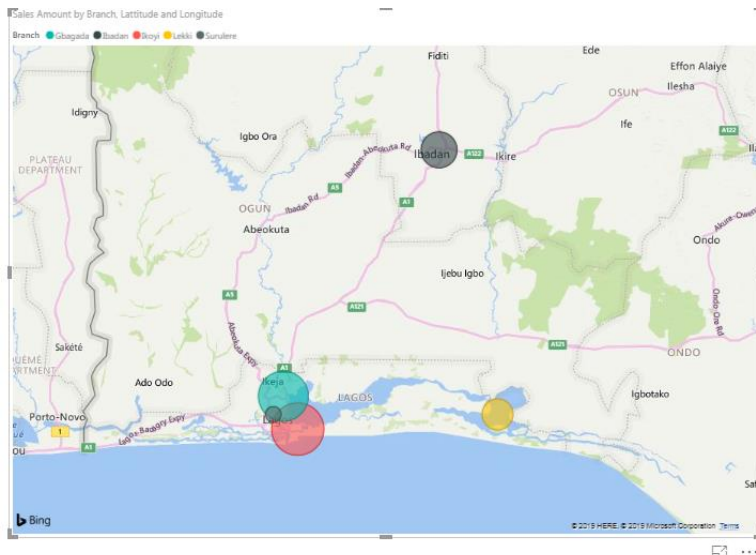
19. Filled Map – Same as map, except it fills the entire location area on the map taking the shape of the country/state/city.
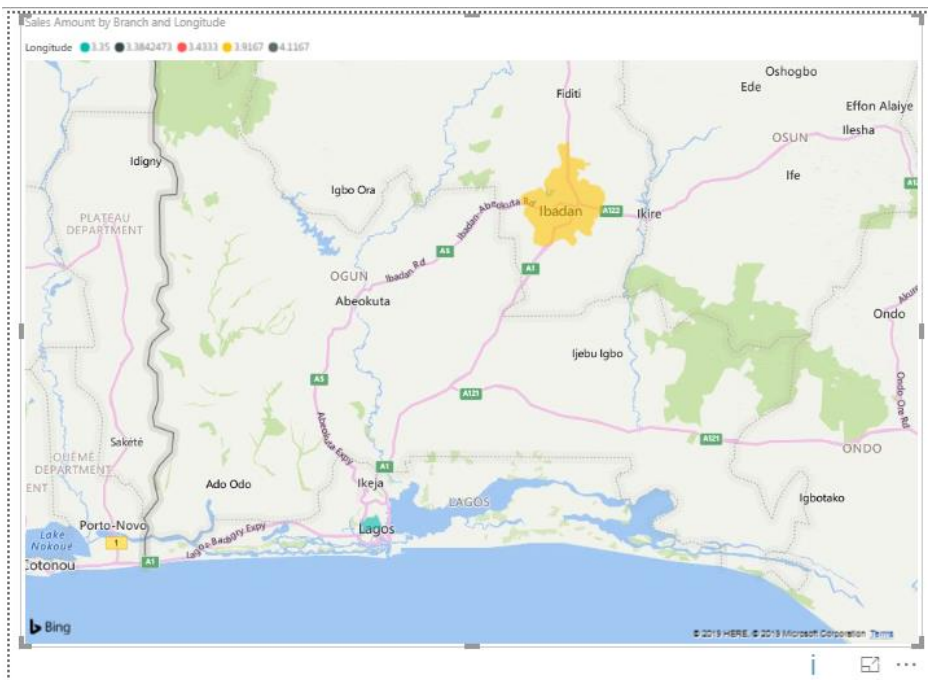
20. Funnel – This chart is best for stage like fields and values. Popular for sales conversion records. You can put the sales/conversion stages in the Group.

21. Gauge – This chart is great for showing the values against target on a gauge-like scale, and you can set the dimensions (min and max on scale)
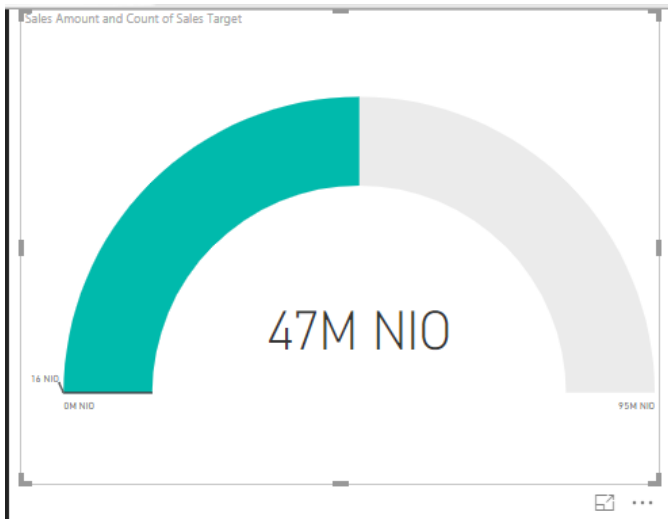
22. Card – It displays figures like sum, avg, min, max, count etc.
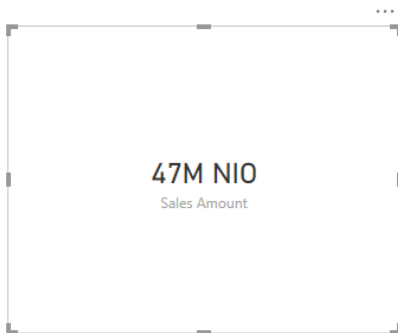
23. Multi-row card – It is like card with ability to display multiple values.

24. KPI – Key Performance Indicators

25. Slicers – Act as filters on visuals

Branch

Gbagada	Lekki
Ibadan	Surulere
Ikoyi	

26. Table – It aggregates the fields in tabular form.

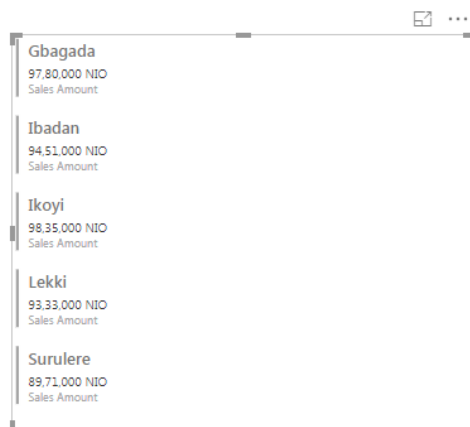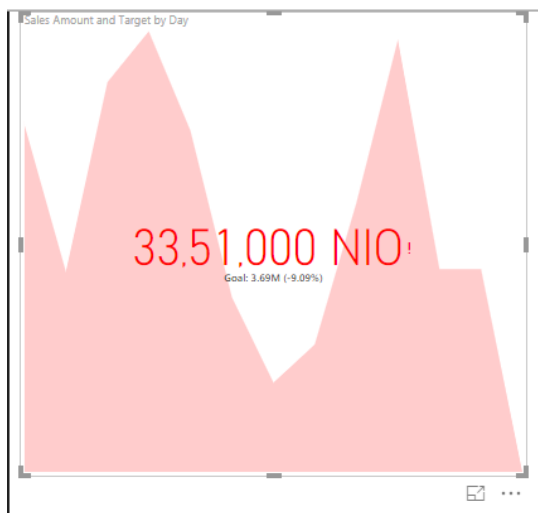| Year	Quarter	Month	Day	Target	Sales Amount
2015	Qtr 4	December	3	41,38,200.00	37,62,000 NIO
2015	Qtr 4	December	4	28,70,400.00	35,88,000 NIO
2015	Qtr 4	December	5	41,93,200.00	38,12,000 NIO
2015	Qtr 4	December	6	38,72,000.00	38,72,000 NIO
2015	Qtr 4	December	7	45,06,000.00	37,55,000 NIO
2015	Qtr 4	December	8	42,69,600.00	35,58,000 NIO
2015	Qtr 4	December	9	41,48,400.00	34,57,000 NIO
2015	Qtr 4	December	10	38,52,200.00	35,02,000 NIO
2015	Qtr 4	December	11	29,35,200.00	36,69,000 NIO
2015	Qtr 4	December	12	34,75,800.00	38,62,000 NIO
2015	Qtr 4	December	13	32,31,900.00	35,91,000 NIO
2015	Qtr 4	December	14	32,31,900.00	35,91,000 NIO
2015	Qtr 4	December	15	36,86,100.00	33,51,000 NIO
Total				4,84,10,900.00	4,73,70,000 NIO

27. Matrix – Like an Excel Pivot Table, displays matrix of aggregated data.

Branch	BQ Chicken	BBQ Philly Steak	Beef Suya	Chicken Bali	Chicken Feast
Gbagada	7,64,000 NIO	8,64,000 NIO	5,88,000 NIO	2,96,000 NIO	3,88,000 NIO
Ibadan	6,68,000 NIO	7,00,000 NIO	5,07,000 NIO	4,00,000 NIO	4,64,000 NIO
Ikoyi	6,96,000 NIO	7,64,000 NIO	6,84,000 NIO	3,48,000 NIO	3,24,000 NIO
Lekki	7,60,000 NIO	6,88,000 NIO	5,61,000 NIO	3,34,000 NIO	2,16,000 NIO
Surulere	7,12,000 NIO	7,92,000 NIO	6,03,000 NIO	4,00,000 NIO	3,52,000 NIO
Total	6,00,000 NIO	38,08,000 NIO	29,43,000 NIO	17,78,000 NIO	17,44,000 NIO