Power Bi Visualization

Power BI Visualization Creating Interactive Metrics Dashboards

Objective:

Design and build an interactive Power BI report that combines tables, bar charts, line charts, pie charts, cards, and slicers into cohesive visuals.

Equipment Required:

- A computer (Windows/macOS) with internet access
- Power BI Desktop
- The Excel file Shop-Records.xlsx

Prerequisites:

- Familiarity with Power BI Desktop interface (canvas, panes, ribbons)
- Understanding of data import, relationships, and basic aggregation

Problem Statement:

You have sales, product, date, and country lookup data. Build an interactive dashboard that enables users to:

- Prepare Tables, Bar Chart, Line Chart, and Pie Chart.
- Compare product sales with dynamic cards and slicers embedded in each chart
- Visualize country sales distribution with interactive filters embedded
- Present a unified experience without separate KPI panels

Procedure:

1. Import Data
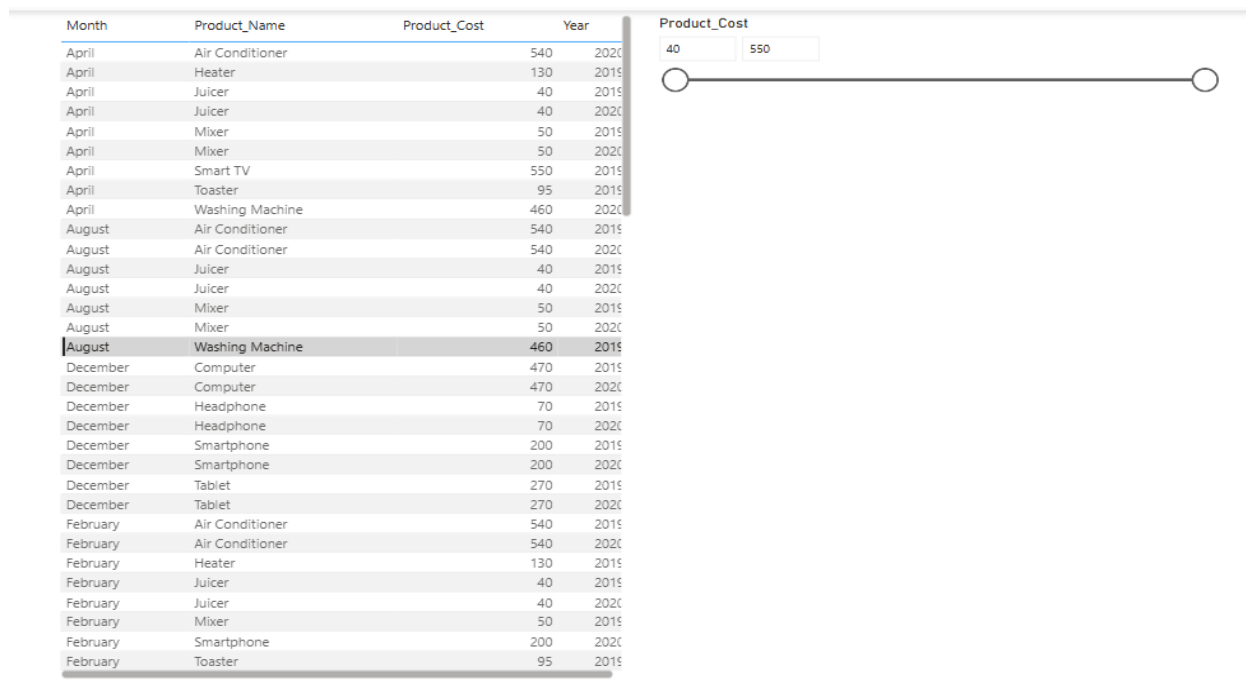
1. Launch Power BI Desktop.
2. Home → Get Data → Excel → select Shop-Records.xlsx → Open - Shop-Records 1.xlsx
3. In Navigator, check Sales, Products, Date, Country → Load.

2. Build a Table Visualization

1. Select Table in Visualizations.
2. Drag these fields in order:
   - Date[Year]
   - Date[Month]
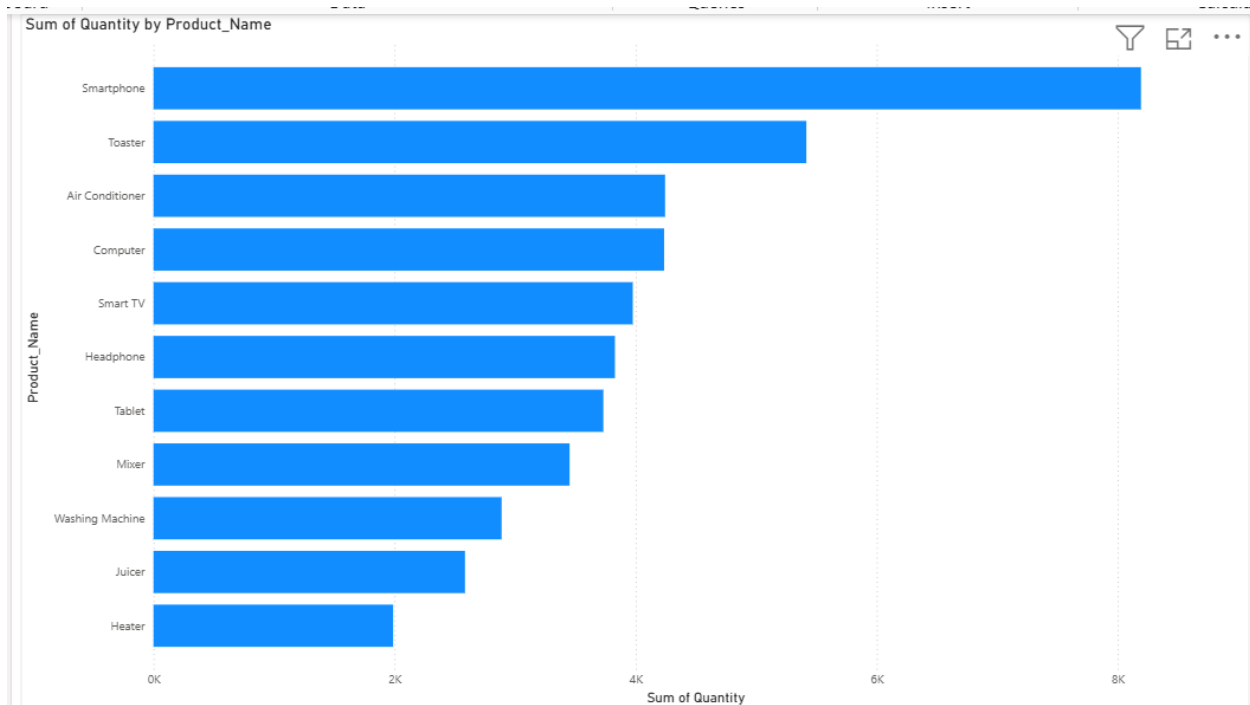   - Products[Product_Name]
   - Sales[Quantity]

Month	Product_Name	Product_Cost	Year
April	Air Conditioner	540	2020
April	Heater	130	2019
April	Juicer	40	2019
April	Juicer	40	2020
April	Mixer	50	2019
April	Mixer	50	2020
April	Smart TV	550	2019
April	Toaster	95	2019
April	Washing Machine	460	2020
August	Air Conditioner	540	2019
August	Air Conditioner	540	2020
August	Juicer	40	2019
August	Juicer	40	2020
August	Mixer	50	2019
August	Mixer	50	2020
August	Washing Machine	460	2019
December	Computer	470	2019
December	Computer	470	2020
December	Headphone	70	2019
December	Headphone	70	2020
December	Smartphone	200	2019
December	Smartphone	200	2020
December	Tablet	270	2019
December	Tablet	270	2020
February	Air Conditioner	540	2019
February	Air Conditioner	540	2020
February	Heater	130	2019
February	Juicer	40	2019
February	Juicer	40	2020
February	Mixer	50	2019
February	Smartphone	200	2020
February	Toaster	95	2019

3. Click on blank area, go to Visualizations and click Slicer and drag Product_Cost into it.

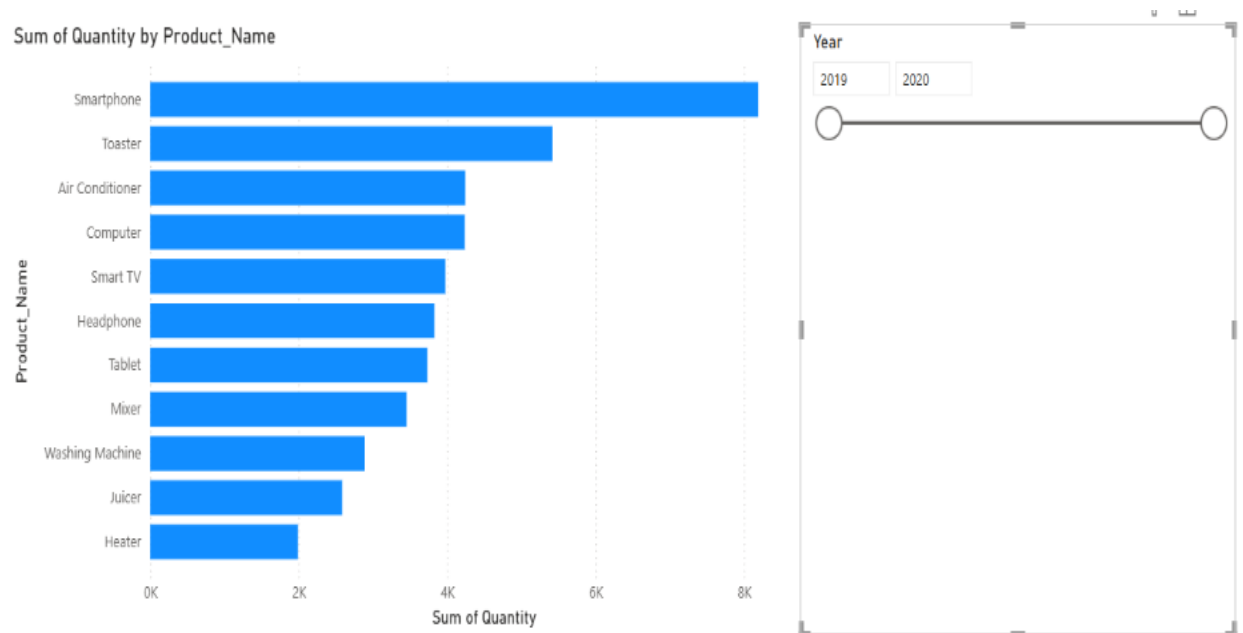| Month	Product_Name	Product_Cost	Year
April	Air Conditioner	540	2020
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April	Mixer	50	2019
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December	Computer	470	2020
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February	Mixer	50	2019
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February	Toaster	95	2019

Product_Cost

40   550

3. Creating Bar Chart with Card and Slicer

1. On canvas click Clustered bar chart.
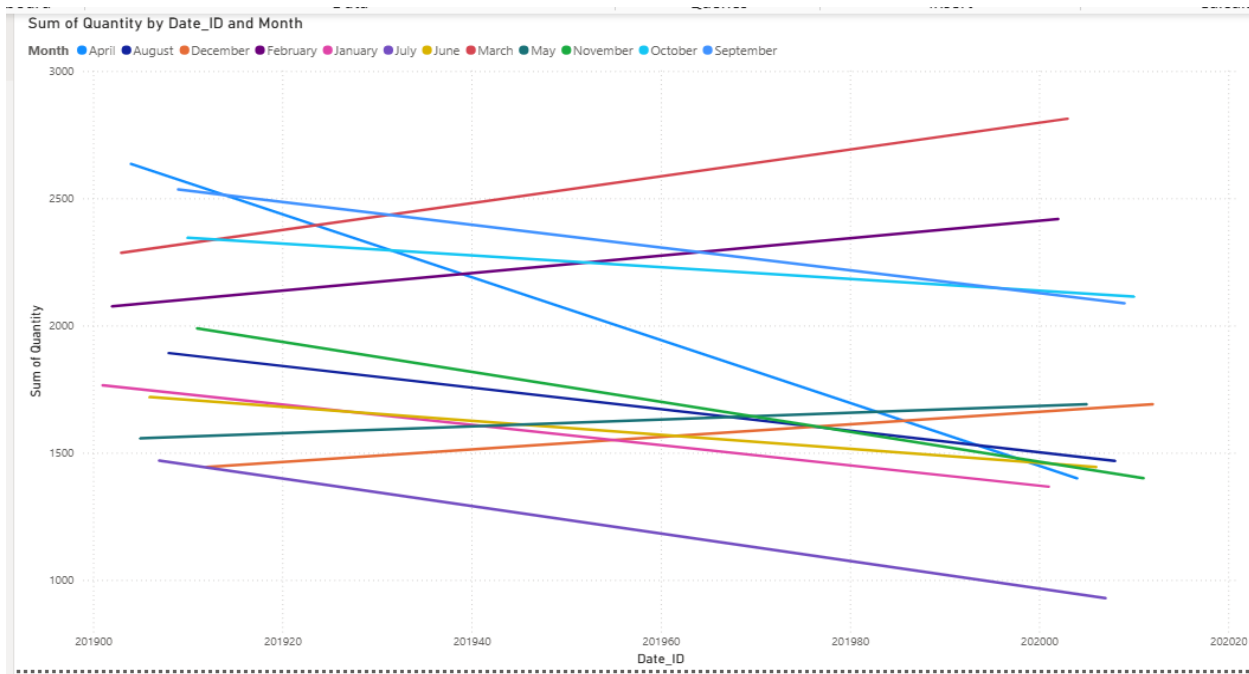2. Fields pane → Axis = Products[Product_Name], Values = Sales[Quantity].

Sum of Quantity by Product_Name

3. Click on blank area, select the Slicer icon, in the slicer's Field well drag Date[Year].
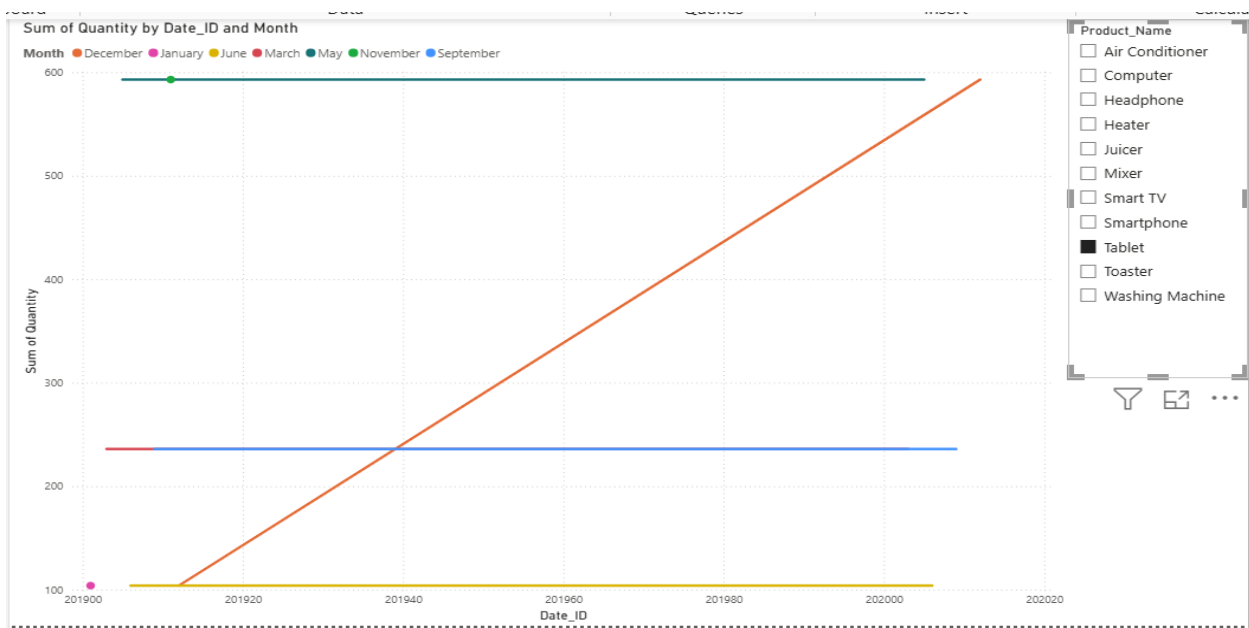

5. Integrated Line Chart with Card and Slicer

1. Click Visualizations then select Line chart.
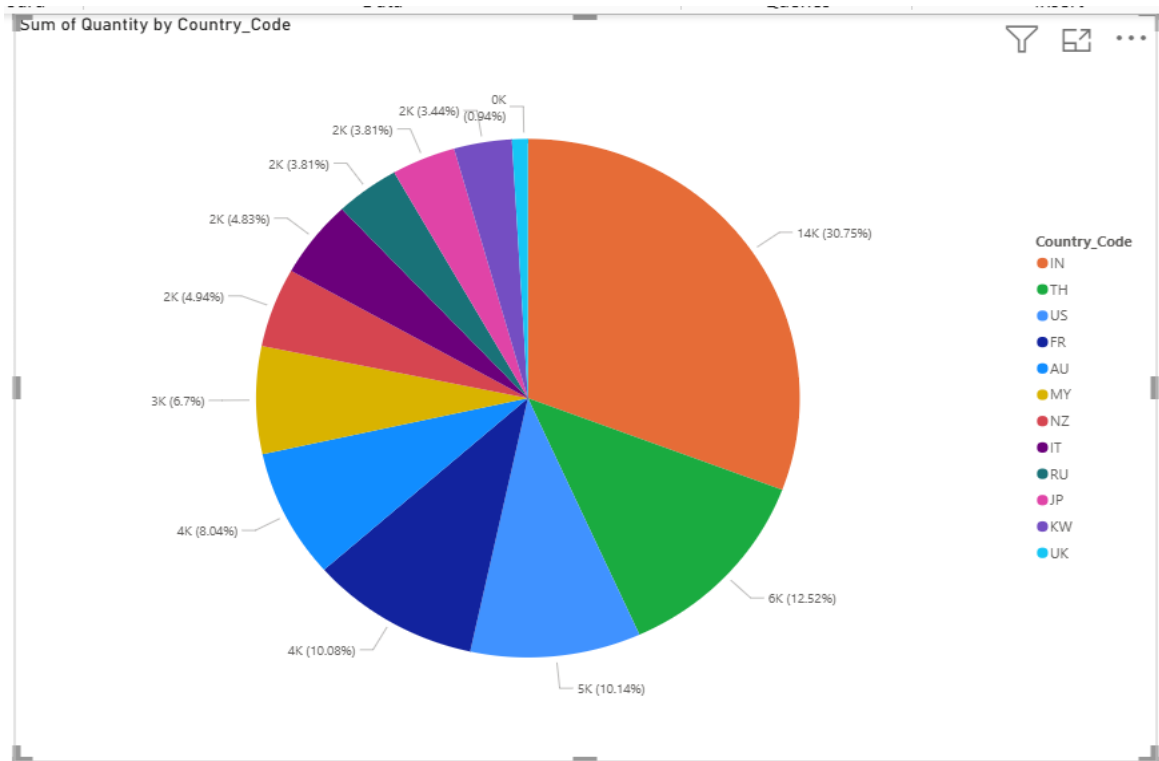2. X-Axis = Date_ID, Y-Axis = Quantity, Legend = Month

Sum of Quantity by Date_ID and Month

3. Choose Slicer from Visualizations, drag Product_Name.

Sum of Quantity by Date_ID and Month

Month ● December ● January ● June ● March ● May ● November ● September

Product_Name
☐ Air Conditioner
☐ Computer
☐ Headphone
☐ Heater
☐ Juicer
☐ Mixer
☐ Smart TV
☐ Smartphone
■ Tablet
☐ Toaster
☐ Washing Machine

6. Integrated Pie Chart with Card and Slicer

1. Click Visualization then choose Pie chart.
2. Legend = Country Code, Values = Quantity.

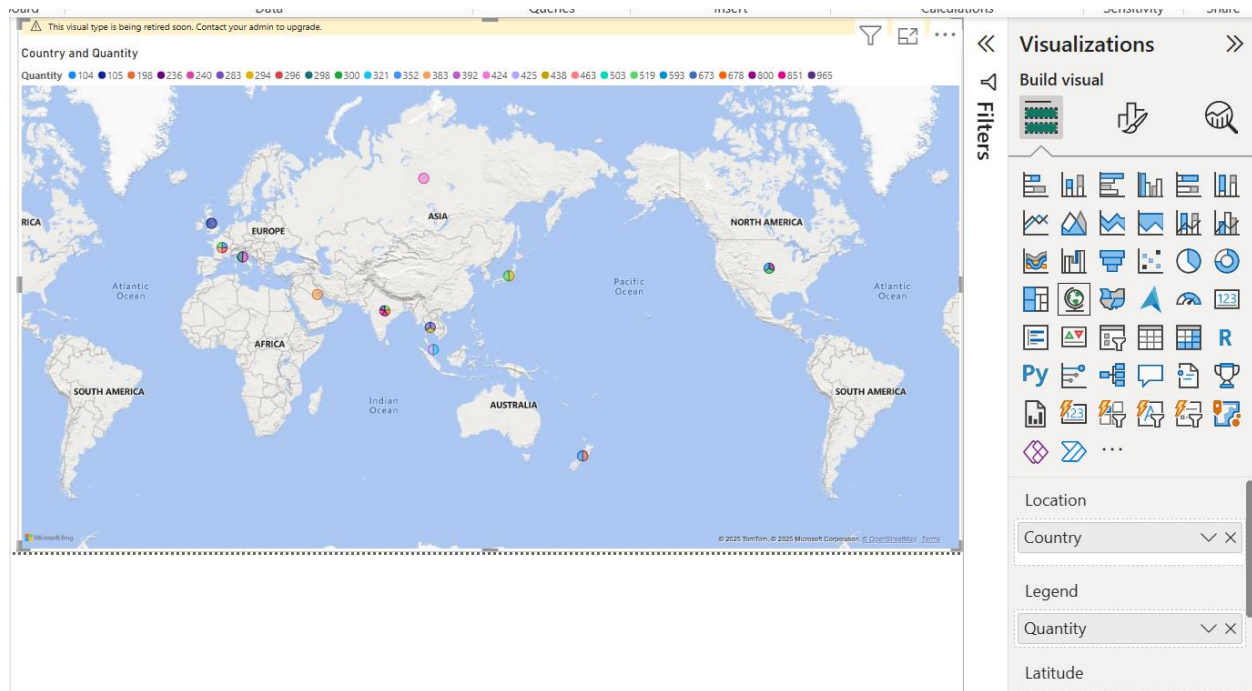Sum of Quantity by Country_Code

3. Add a slicer to the pie by selecting Slicer; Field = Month.

Sum of Quantity by Country_Code

7. Create Map Visualization

1. Click Visualization then choose Map chart.
2. Legend = Quantity, Location = Country

8. Save and Publish