

## Lecture 10

# Chart Types In Excel

Column	Combo (Column + Line)
Line	Area
Scatter	Hierarchical
Pie	Waterfall
Bar	Radar
Statistical	Funnel

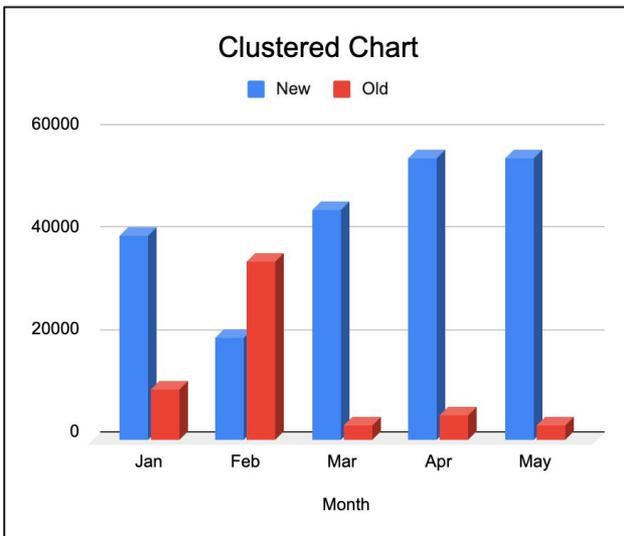


# Clustered Chart vs Stacked Chart vs 100% Stacked Chart

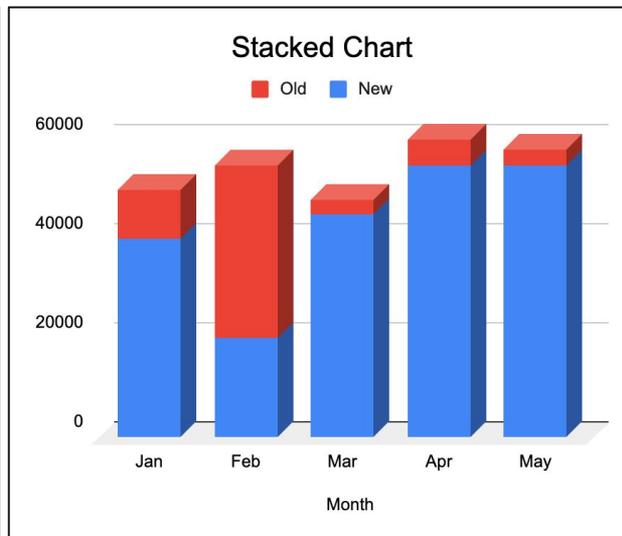
- Compares **multiple categories side by side**
- Each value is shown **independently**

- Shows **total value**
- Also shows **individual contribution** of each sub-category

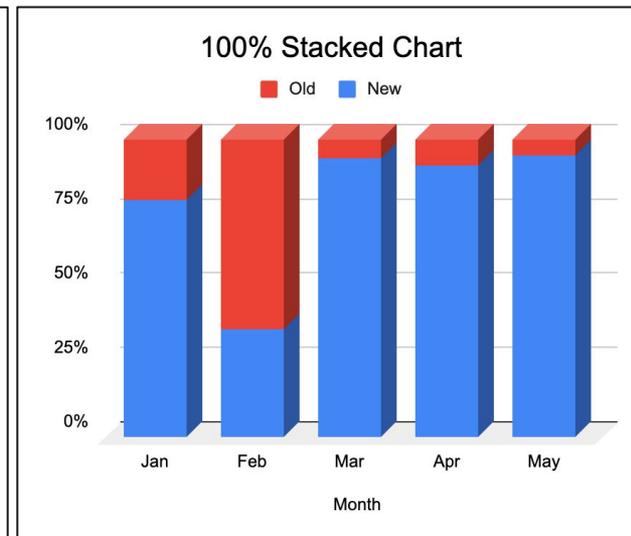
- Shows **percentage contribution**
- Every bar equals **100%**



**Compare values across categories**



**Part-to-whole + total comparison**



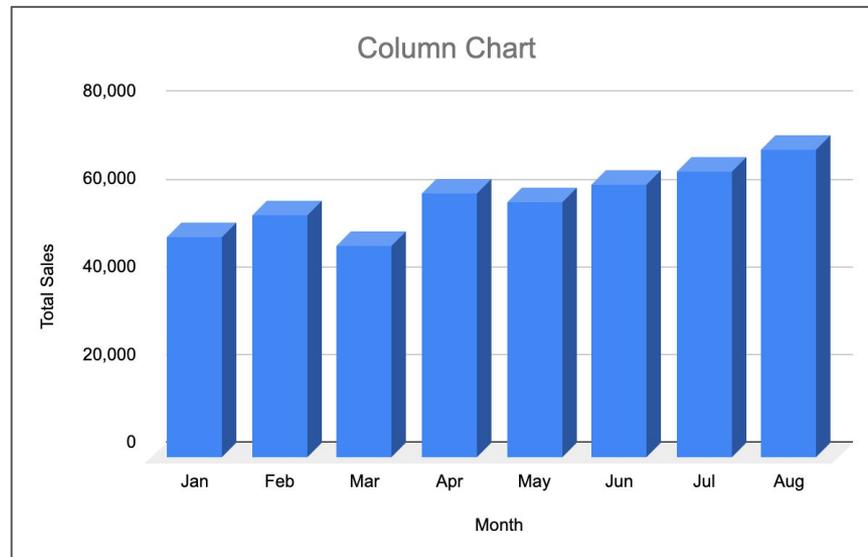
**Compare proportions, not actual values**

# 1. Column Chart

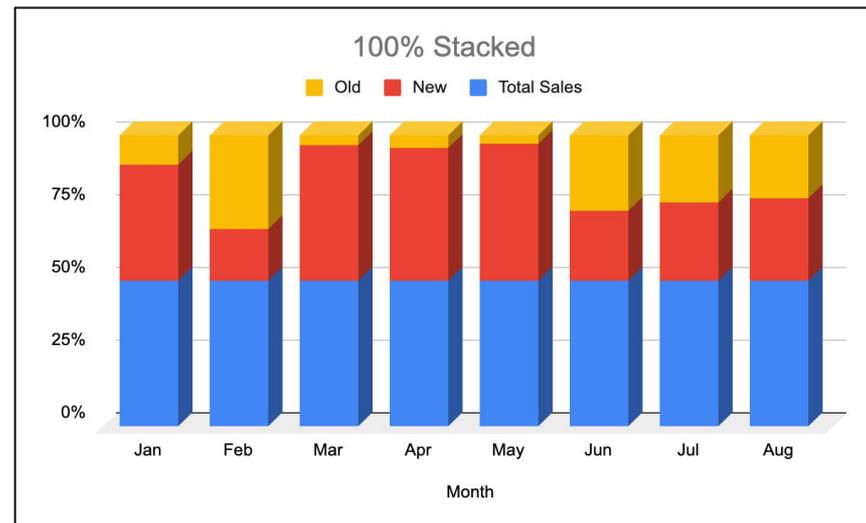
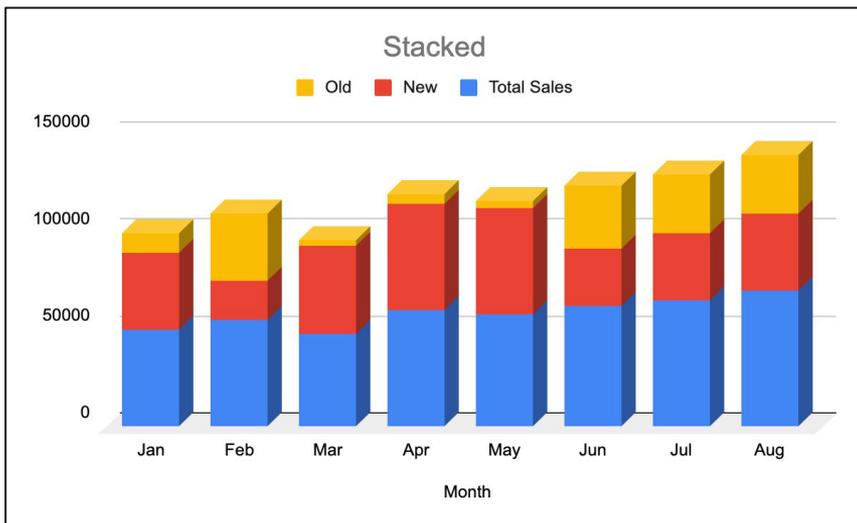
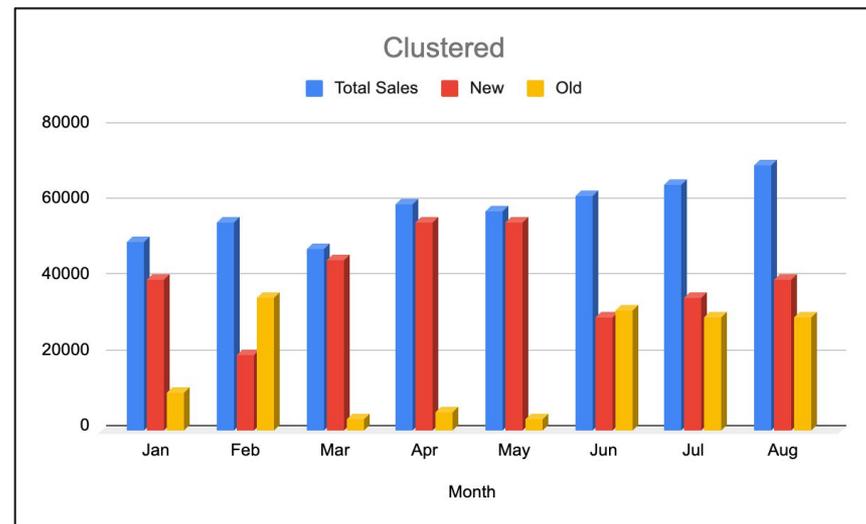
- Compare values across categories
- Show differences between items (month-wise sales, product-wise revenue)

Axis on Chart	Parameters Shown on Chart
X & Y (2 axes)	2+

Month	Total Sales	New	Old
Jan	50,000	40000	10,000
Feb	55,000	20000	35,000
Mar	48,000	45000	3,000
Apr	60,000	55000	5,000
May	58,000	55000	3,000
Jun	62,000	30000	32,000
Jul	65,000	35000	30,000
Aug	70,000	40000	30,000



Month	Total Sales	New	Old
Jan	50,000	40000	10,000
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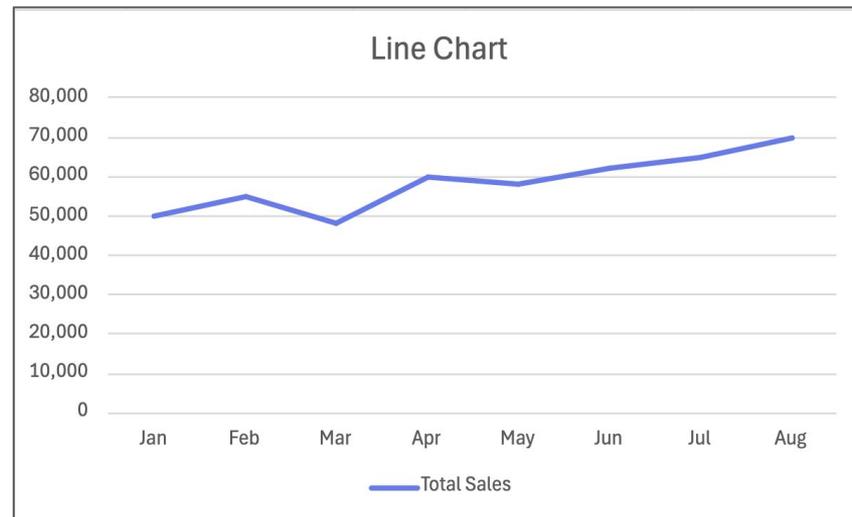


## 2. Line Chart

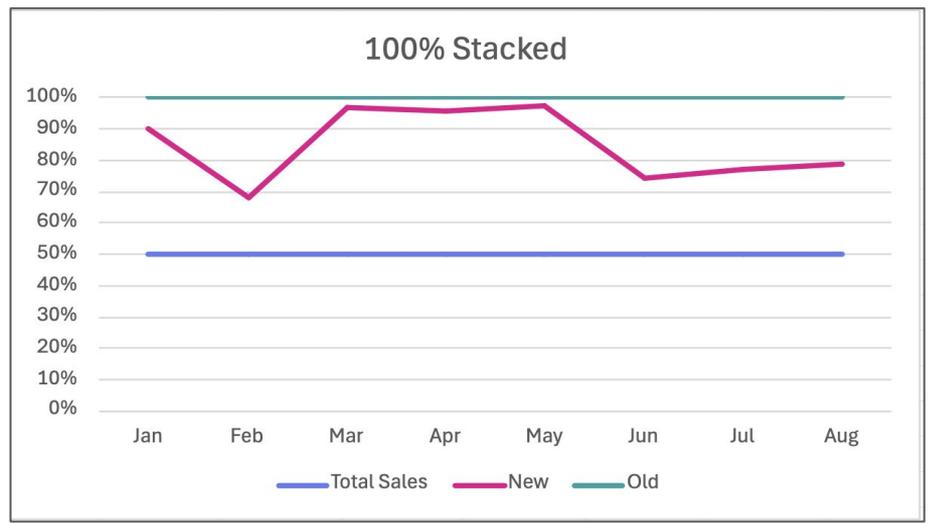
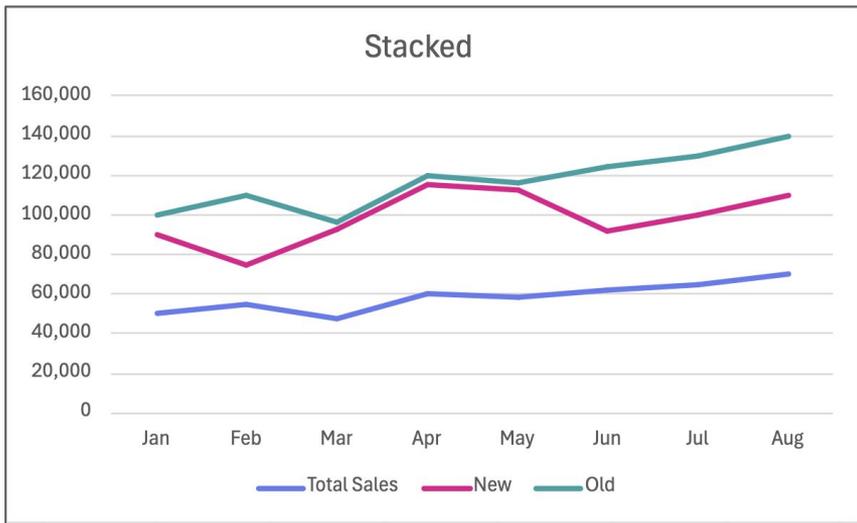
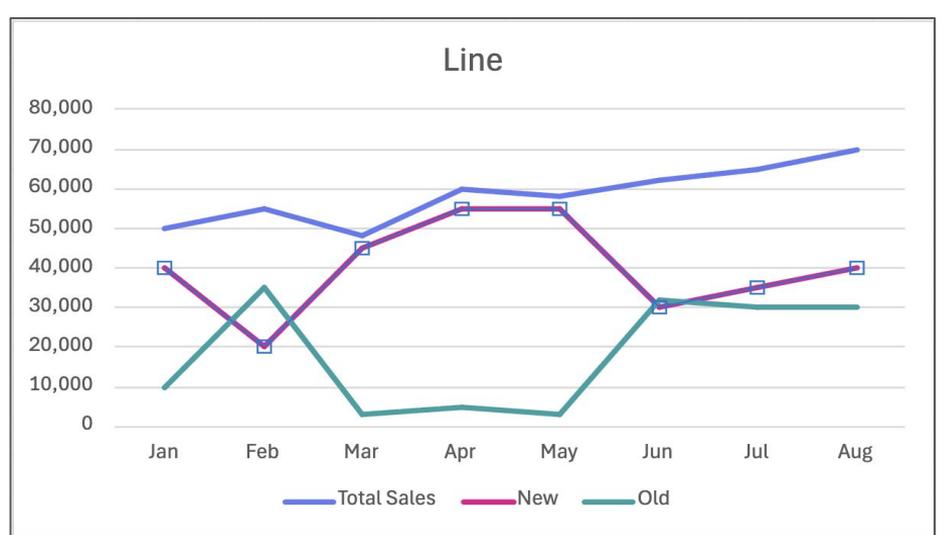
- Show **trend over time**
- Identify upward/downward movement

Axis on Chart	Parameters Shown on Chart
X & Y (2 axes)	2+

Month	Total Sales	New	Old
Jan	50,000	40000	10,000
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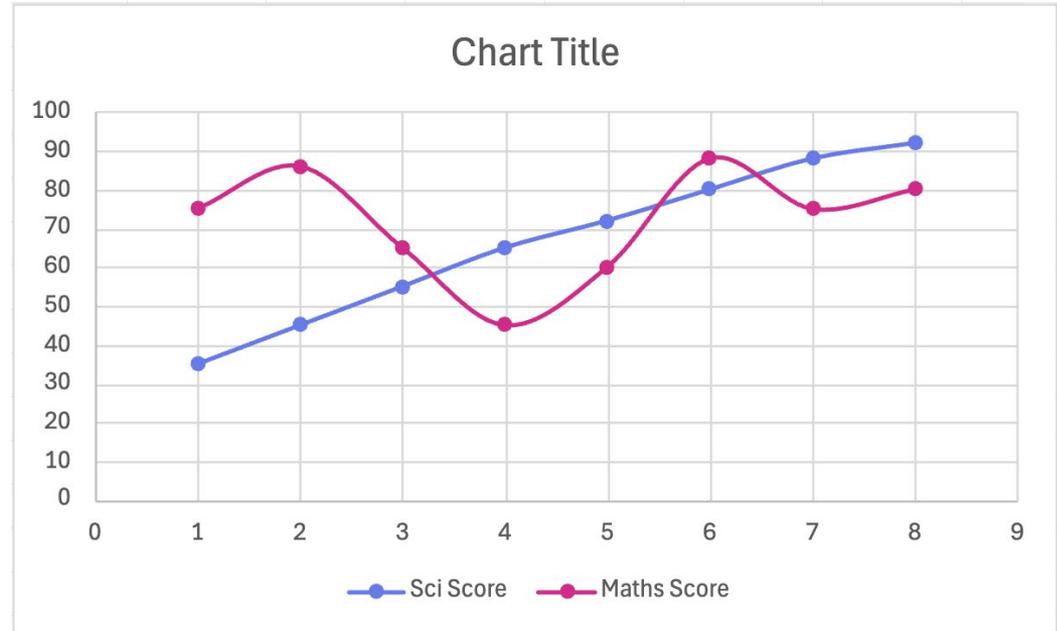


# 3. Scatter Chart

- Show **relationship between two numeric variables**
- Correlation analysis (e.g., study hours vs score)

Axis on Chart	Parameters Shown on Chart
X & Y (numeric)	2+

Study Hours	Sci Score	Maths Score
1	35	75
2	45	86
3	55	65
4	65	45
5	72	60
6	80	88
7	88	75
8	92	80



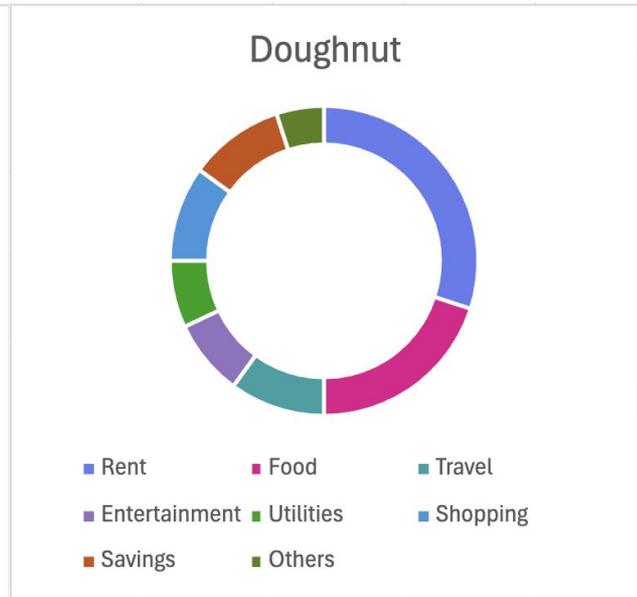
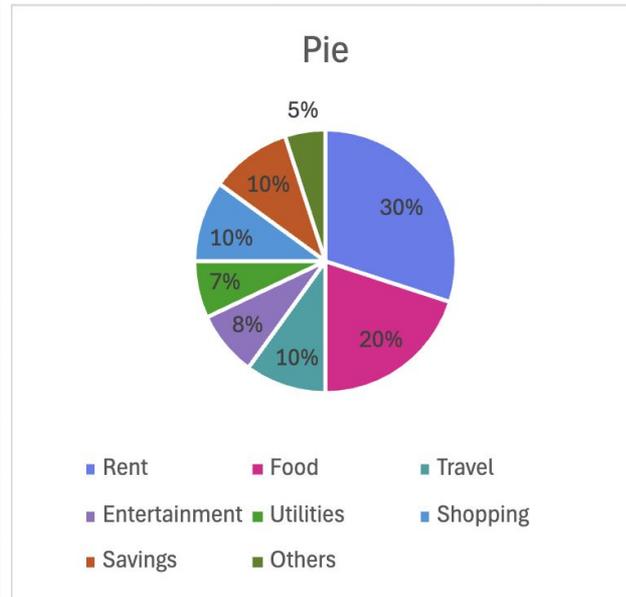
# 4. Pie Chart



- Show **percentage contribution**
- Best when total = 100%

Axis on Chart	Parameters Shown on Chart
No Axis	2

Expense Category	Amount
Rent	30
Food	20
Travel	10
Entertainment	8
Utilities	7
Shopping	10
Savings	10
Others	5

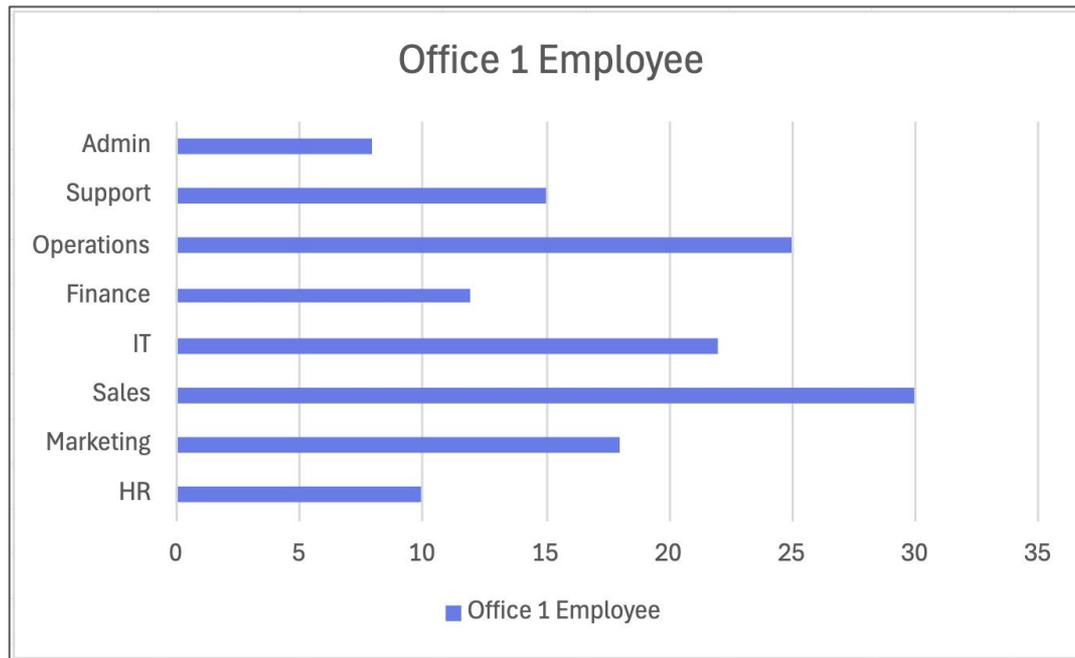


# 5. Bar Chart

- Compare categories with **long names**
- Horizontal comparison

Axis on Chart	Parameters Shown on Chart
X & Y (2 axes)	2+

Department	Office 1 Employees	Office 2 Employees
HR	10	12
Marketing	18	13
Sales	30	25
IT	22	19
Finance	12	11
Operations	25	23
Support	15	13
Admin	8	9



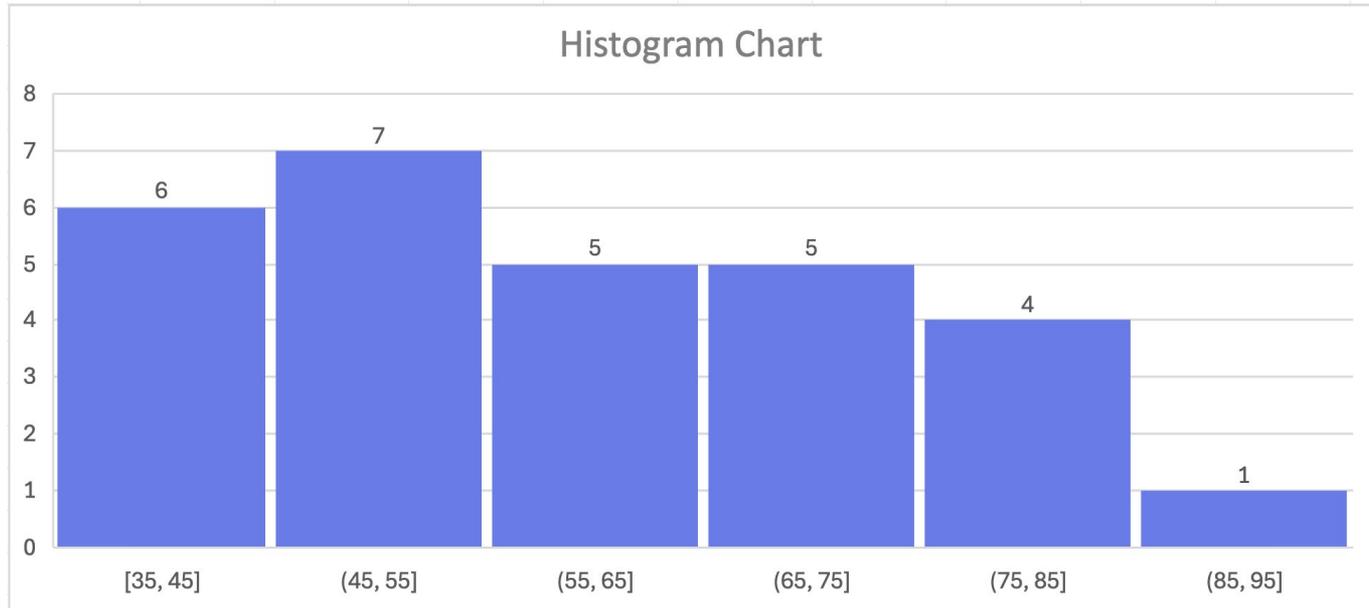
# 6. Statistical Chart (Histogram)



- Analyze **distribution**
- Identify spread, outliers, variation

Axis on Chart	Parameters Shown on Chart
X & Y (2 axes)	2

Marks
35
40
45
50
55
60
70
85

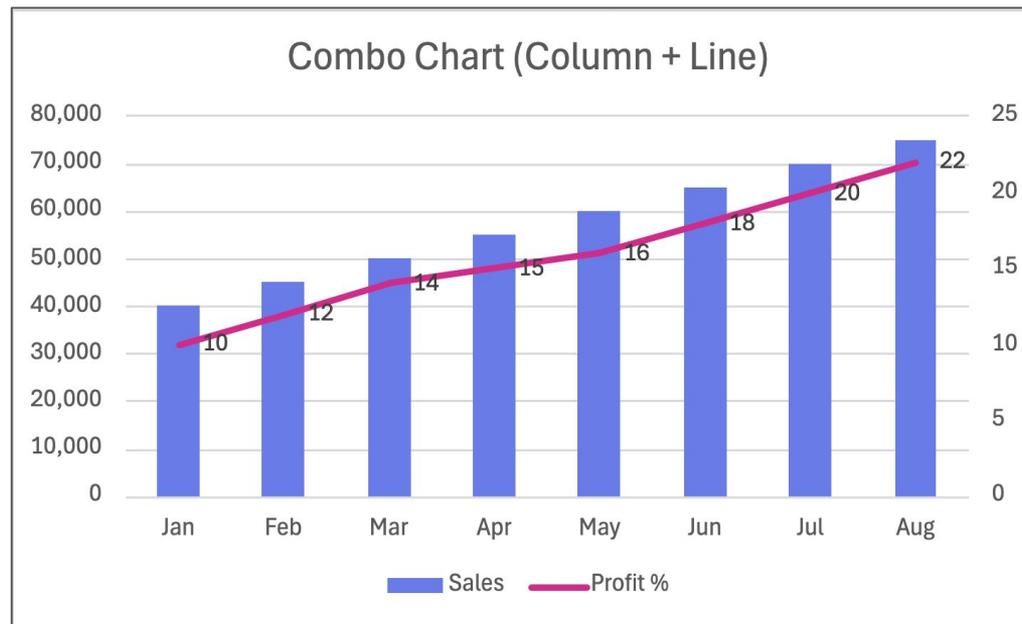


# 7. Combo Chart (Column + Line)

- Compare **two different metrics**
- When values are on **different scales**

Axis on Chart	Parameters Shown on Chart
2 Y-axes	3

Month	Sales	Profit %
Jan	40,000	10
Feb	45,000	12
Mar	50,000	14
Apr	55,000	15
May	60,000	16
Jun	65,000	18
Jul	70,000	20
Aug	75,000	22



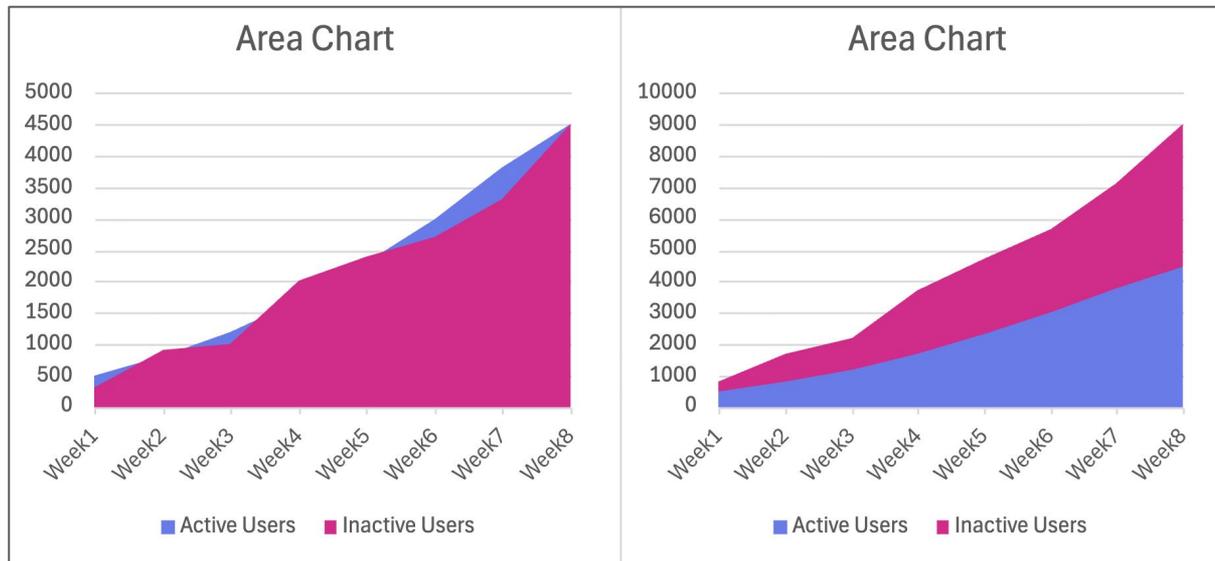
# 8. Area Chart



- Compare values across categories
- Show differences between items (month-wise sales, product-wise revenue)

Axis on Chart	Parameters Shown on Chart
X & Y (2 axes)	2

Year	Active Users
2017	500
2018	800
2019	1,200
2020	1,700
2021	2,300
2022	3,000
2023	3,800
2024	4,500

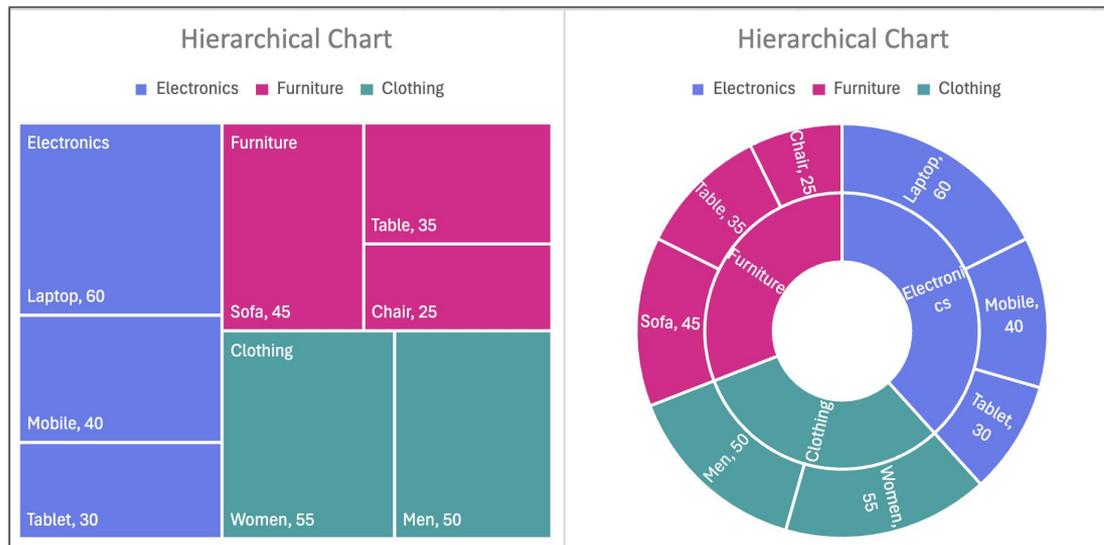


# 9. Hierarchical Chart (Tree Map)

- Show parent-child relationship
- Category → Subcategory breakdown

Axis on Chart	Parameters Shown on Chart
No axis	3

Category	Product	Sales
Electronics	Mobile	40
Electronics	Laptop	60
Electronics	Tablet	30
Furniture	Chair	25
Furniture	Table	35
Furniture	Sofa	45
Clothing	Men	50
Clothing	Women	55

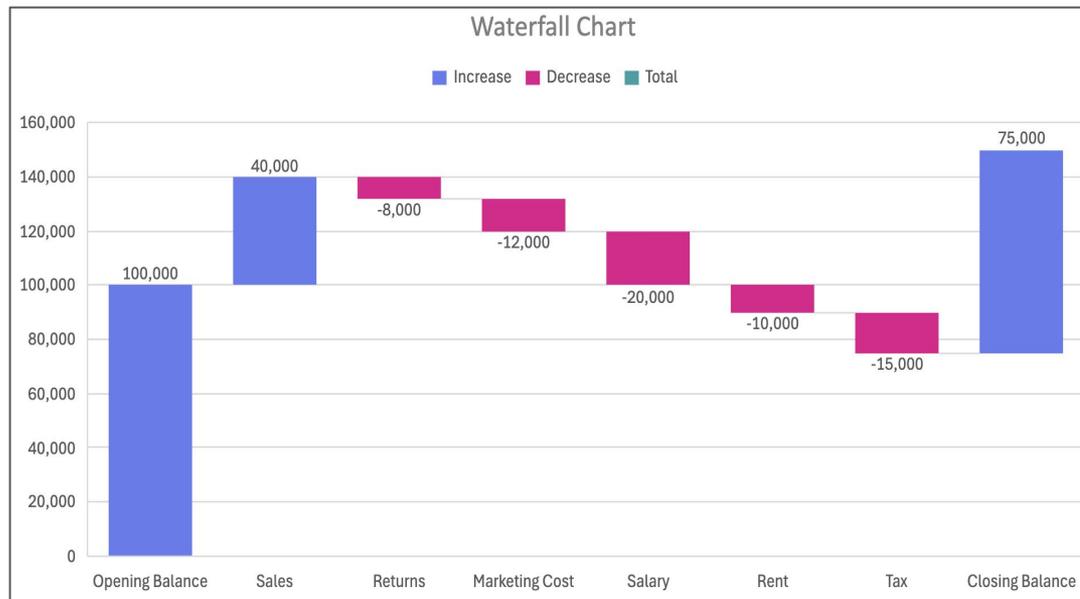


# 10. Waterfall Chart

- Show **step-by-step changes**
- Profit, cash flow, variance analysis

Axis on Chart	Parameters Shown on Chart
X & Y (2 axes)	2

Stage	Amount
Opening Balance	1,00,000
Sales	40,000
Returns	-8,000
Marketing Cost	-12,000
Salary	-20,000
Rent	-10,000
Tax	-15,000
Closing Balance	75,000

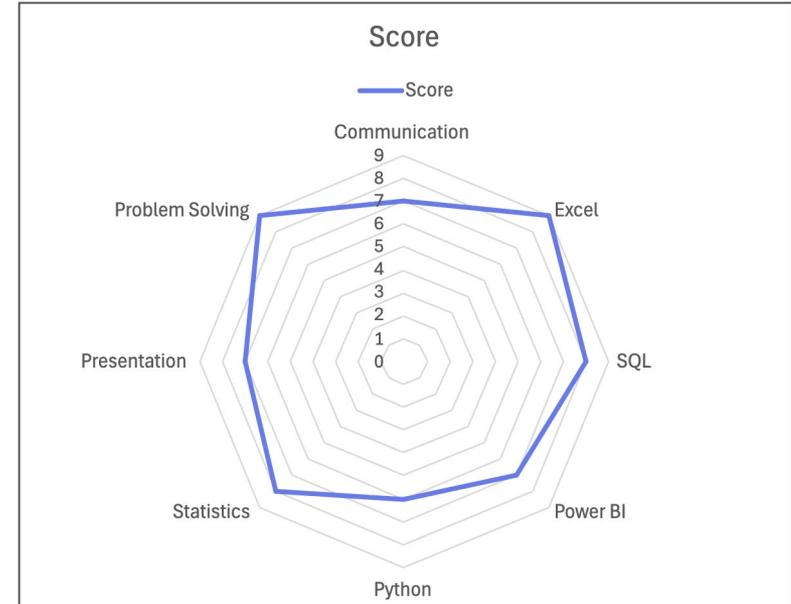


# 11. Radar Chart

- Compare **multiple metrics** for one or more items
- Performance comparison

Skill	Score
Communication	7
Excel	9
SQL	8
Power BI	7
Python	6
Statistics	8
Presentation	7
Problem Solving	9

Axis on Chart	Parameters Shown on Chart
Multiple radial axes	4+



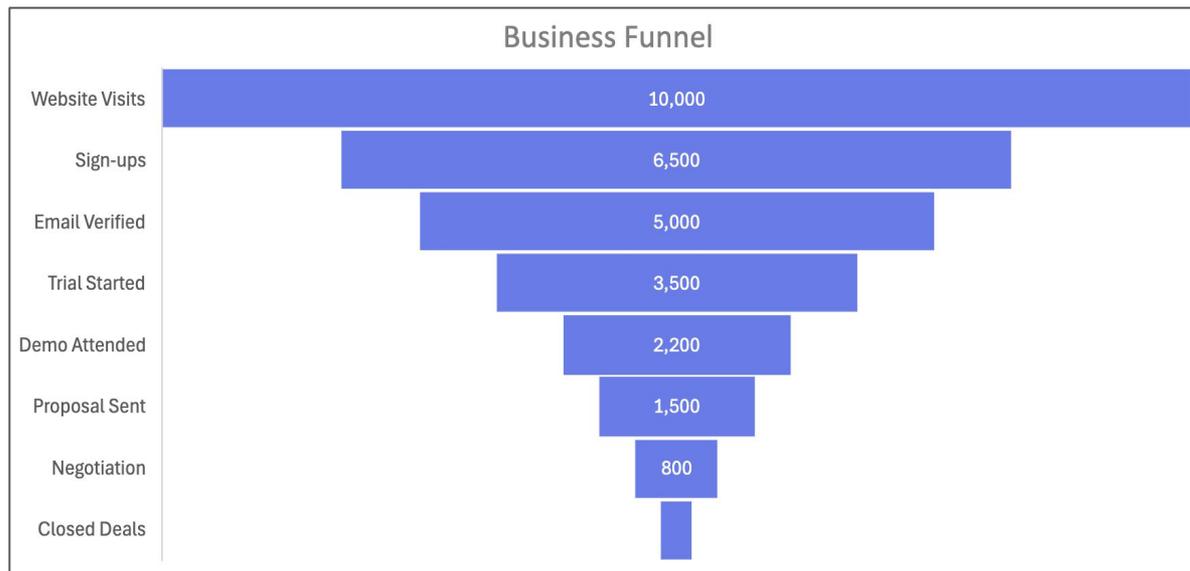
# 12. Funnel Chart



- Show **stage-wise drop**
- Sales pipeline, hiring funnel

Axis on Chart	Parameters Shown on Chart
No axis	2

Stage	Count
Website Visits	10,000
Sign-ups	6,500
Email Verified	5,000
Trial Started	3,500
Demo Attended	2,200
Proposal Sent	1,500
Negotiation	800
Closed Deals	300



# Chart Types Cheat Sheet



Chart Name	When to Use	Values Used	Axis on Chart	Parameters Shown on Chart
<b>Column</b>	Compare values across categories	Category + Numeric	X & Y (2 axes)	<b>2+</b>
<b>Line</b>	Show trend over time	Time + Numeric	X & Y (2 axes)	<b>2+</b>
<b>Scatter</b>	Show relationship between two numbers	Numeric + Numeric	X & Y (numeric)	<b>2+</b>
<b>Pie</b>	Show percentage contribution	Category + Numeric	No axis	<b>2</b>
<b>Bar</b>	Compare categories (horizontal)	Category + Numeric	X & Y (2 axes)	<b>2+</b>
<b>Statistical (Histogram / Box Plot)</b>	Distribution & spread analysis	Numeric	X & Y (2 axes)	<b>2</b>