

dataset

<https://www.kaggle.com/code/sadiqshah/bike-store-sales-in-europe/data>
(<https://www.kaggle.com/code/sadiqshah/bike-store-sales-in-europe/data>)

1. GUI trip

2. Filter

AutoSave On

<

3. search and replace

AutoSave on Sales

File Home Insert Page Layout Formulas Data Review View Automate Help

Clipboard Font Alignment Number Styles Cells Editing Sensitivity Add-ins Analyze Data

POSSIBLE DATA LOSS Some features might be lost if you save this workbook in the comma-separated (.csv) format. To preserve these features, save it in an Excel file format. Don't show again Save As...

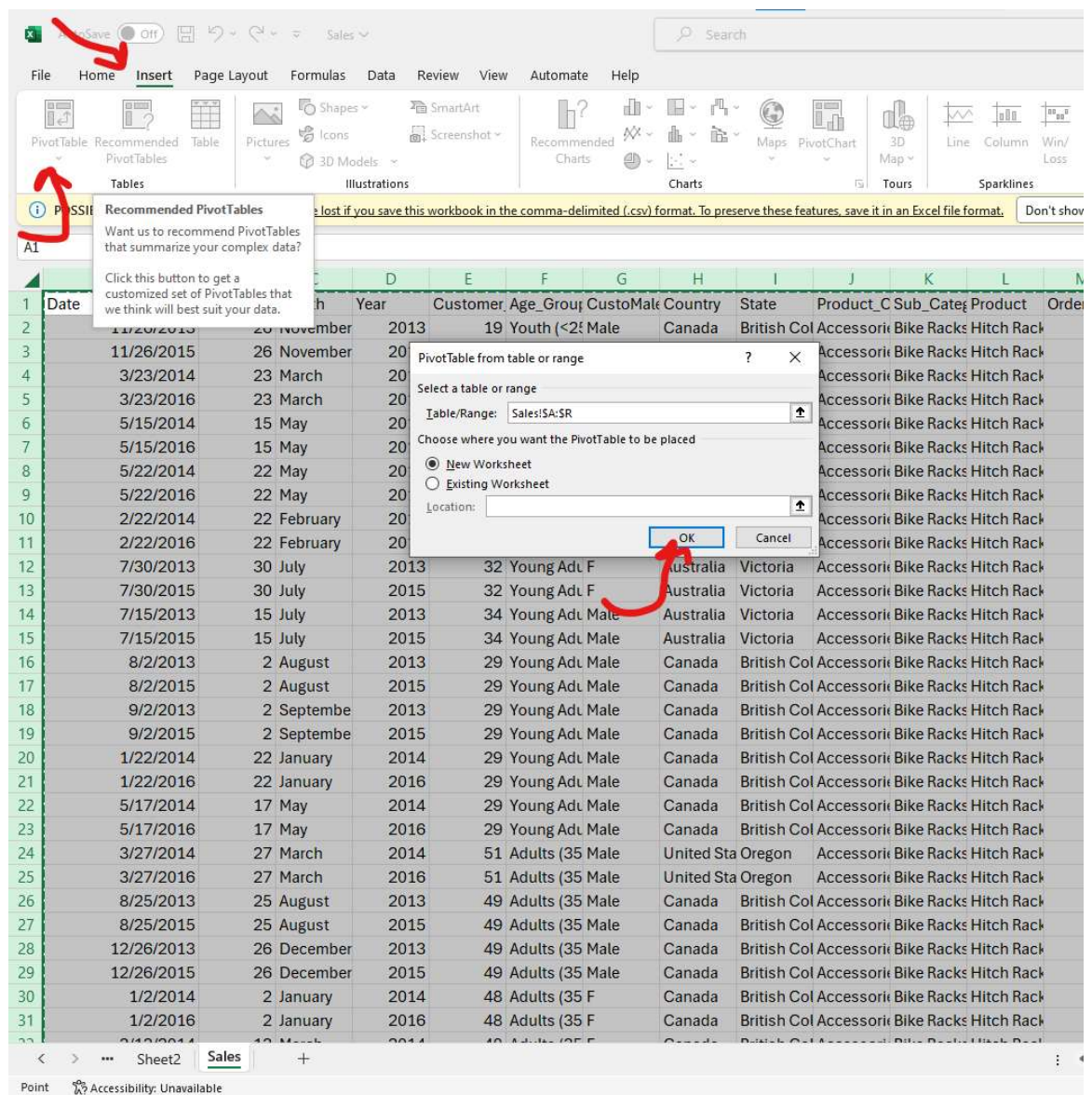
CustomMaleer_Gender

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Date	Day	Month	Year	Customer	Age	Group	CustomMaleer_Gender	Country	State	Product_C	Sub_Cat	Category	Product	Order_Qu	Unit_Cost	Unit_Price	Profit	Cost	Revenue	
2	11/26/2013	26	November	2013	19	Youth (<21)	Male		Canada	British Col	Accessori	Bike Rack	Hitch Rack		8	45	120	590	360	950	
3	11/26/2015	26	November	2015	19	Youth (<21)	Male		Canada	British Col	Accessori	Bike Rack	Hitch Rack		8	45	120	590	360	950	
4	3/23/2014	23	March	2014	49	Adults (35)	Male		Australia	New South	Accessori	Bike Rack	Hitch Rack		23	45	120	1366	1035	2401	
5	3/23/2016	23	March	2016	49	Adults (35)	Male		Australia	New South	Accessori	Bike Rack	Hitch Rack		20	45	120	1188	2000	2088	
6	5/15/2014	15	May	2014	47	Adults (35)	F		Australia	New South	Accessori	Bike Rack	Hitch Rack		4	45	120	238	1111	418	
7	5/15/2016	15	May	2016	47	Adults (35)	F		Australia	New South	Accessori	Bike Rack	Hitch Rack		4	45	120	297	225	522	
8	5/22/2014	22	May	2014	47	Adults (35)	F		Australia	New South	Accessori	Bike Rack	Hitch Rack		4	45	120	199	180	379	
9	5/22/2016	22	May	2016	47	Adults (35)	F		Australia	New South	Accessori	Bike Rack	Hitch Rack		4	45	120	100	90	190	
10	2/22/2014	22	February	2014	35	Adults (35)	Male		Australia	New South	Accessori	Bike Rack	Hitch Rack		4	45	120	1096	990	2086	
11	2/22/2016	22	February	2016	35	Adults (35)	Male		Australia	New South	Accessori	Bike Rack	Hitch Rack		4	45	120	1046	945	1991	
12	7/30/2013	30	July	2013	32	Young Ad.	F		Australia	New South	Accessori	Bike Rack	Hitch Rack		4	45	120	398	360	758	
13	7/30/2015	30	July	2015	32	Young Ad.	F		Australia	New South	Accessori	Bike Rack	Hitch Rack		4	45	120	398	360	758	
14	7/15/2013	15	July	2013	34	Young Ad.	Male		Australia	New South	Accessori	Bike Rack	Hitch Rack		4	45	120	349	315	664	
15	7/15/2015	15	July	2015	34	Young Ad.	Male		Australia	New South	Accessori	Bike Rack	Hitch Rack		4	45	120	349	315	664	
16	8/2/2013	2	August	2013	29	Young Ad.	Male		Canada	British Col	Accessori	Bike Rack	Hitch Rack		5	45	120	369	225	594	
17	8/2/2015	2	August	2015	29	Young Ad.	Male		Canada	British Col	Accessori	Bike Rack	Hitch Rack		7	45	120	517	315	832	
18	9/2/2013	2	September	2013	29	Young Ad.	Male		Canada	British Col	Accessori	Bike Rack	Hitch Rack		2	45	120	148	90	238	
19	9/2/2015	2	September	2015	29	Young Ad.	Male		Canada	British Col	Accessori	Bike Rack	Hitch Rack		1	45	120	74	45	119	
20	1/22/2014	22	January	2014	29	Young Ad.	Male		Canada	British Col	Accessori	Bike Rack	Hitch Rack		1	45	120	74	45	119	
21	1/22/2016	22	January	2016	29	Young Ad.	Male		Canada	British Col	Accessori	Bike Rack	Hitch Rack		1	45	120	74	45	119	
22	5/17/2014	17	May	2014	29	Young Ad.	Male		Canada	British Col	Accessori	Bike Rack	Hitch Rack		6	45	120	443	270	713	
23	5/17/2016	17	May	2016	29	Young Ad.	Male		Canada	British Col	Accessori	Bike Rack	Hitch Rack		8	45	120	590	360	950	
24	3/27/2014	27	March	2014	51	Adults (35)	Male		United Sta	Oregon	Accessori	Bike Rack	Hitch Rack		9	45	120	524	405	929	
25	3/27/2016	27	March	2016	51	Adults (35)	Male		United Sta	Oregon	Accessori	Bike Rack	Hitch Rack		7	45	120	407	315	722	
26	8/25/2013	25	August	2013	49	Adults (35)	Male		Canada	British Col	Accessori	Bike Rack	Hitch Rack		3	45	120	221	135	356	
27	8/25/2015	25	August	2015	49	Adults (35)	Male		Canada	British Col	Accessori	Bike Rack	Hitch Rack		1	45	120	74	45	119	
28	12/26/2013	26	December	2013	49	Adults (35)	Male		Canada	British Col	Accessori	Bike Rack	Hitch Rack		6	45	120	443	270	713	
29	12/26/2015	26	December	2015	49	Adults (35)	Male		Canada	British Col	Accessori	Bike Rack	Hitch Rack		5	45	120	369	225	594	
30	1/2/2014	2	January	2014	48	Adults (35)	F		Canada	British Col	Accessori	Bike Rack	Hitch Rack		4	45	120	295	180	475	
31	1/2/2016	2	January	2016	48	Adults (35)	F		Canada	British Col	Accessori	Bike Rack	Hitch Rack		4	45	120	295	180	475	

Ready Accessibility: Unavailable Count: 113037 115%

pivot table

summarize and analyze data easily by rearranging and presenting it in a more understandable format.



in pivot table you can control which operation you apply to your column

1. Sum: Adds up all the values in the selected column.
2. Count: Counts the number of non-empty cells in the selected column.
3. Average: Calculates the average value of the numbers in the selected column.
4. Max: Finds the largest value in the selected column.
5. Min: Finds the smallest value in the selected column.
6. Product: Multiplies all the values in the selected column together.
7. Count Number: Counts the number of numeric values in the selected column.
8. Stddev: Calculates the standard deviation based on a sample of the values in the selected column.
9. Stddevp: Calculates the standard deviation based on the entire population of values in the selected column.
10. Var: Calculates the variance based on a sample of the values in the selected column.
11. Varp: Calculates the variance based on the entire population of values in the selected column.

and you can show data in different forms

No calculation: Displays raw data as is. % of Grand Total: Shows each value as a percentage of the grand total. % of Column Total: Displays each value as a percentage of the total for its column. % of Row Total: Shows each value as a percentage of the total for its row. % of

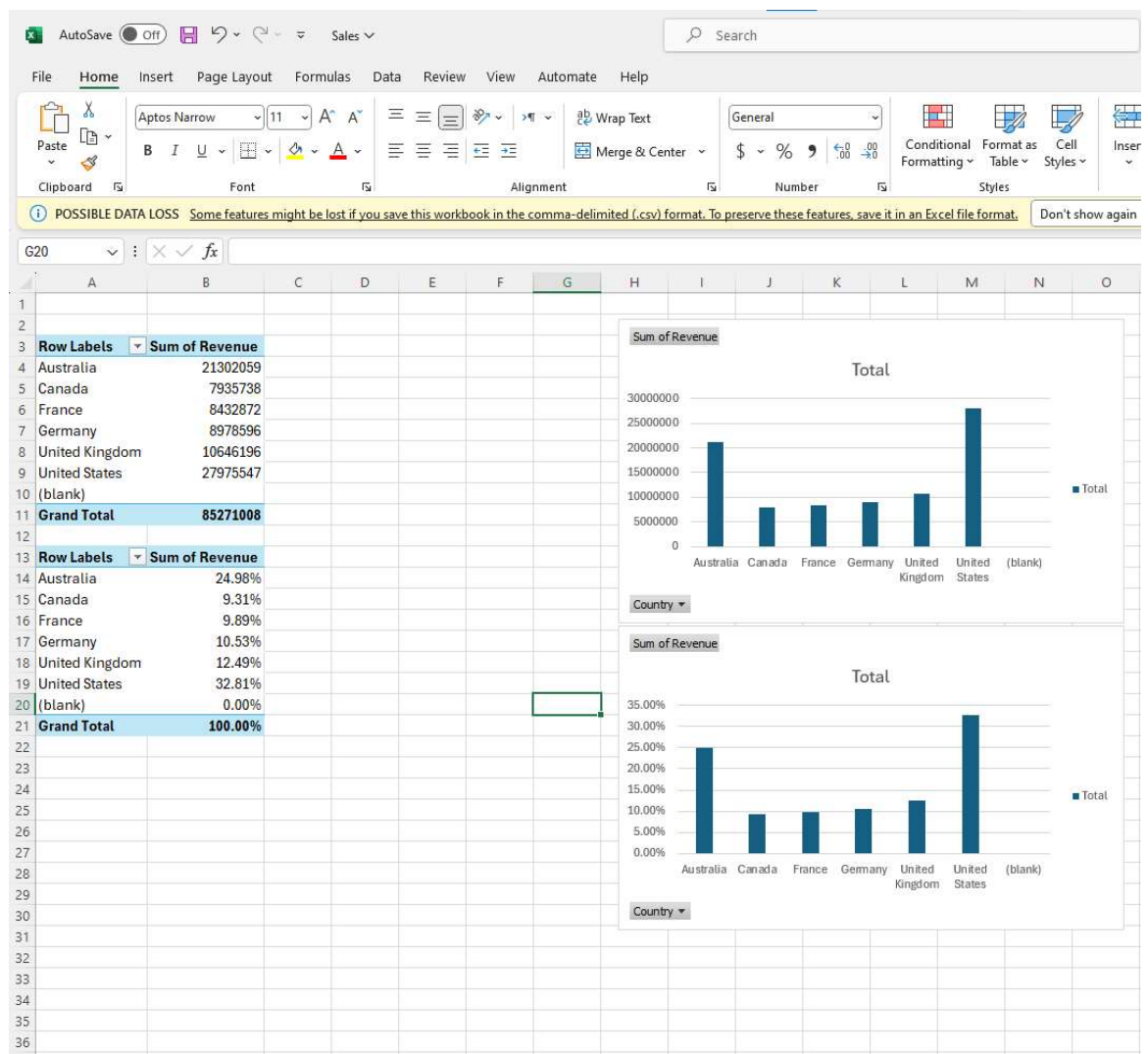
Parent Row Total: Displays each value as a percentage of its parent row total (useful for hierarchical data). % of Parent Column Total: Shows each value as a percentage of its parent column total (useful for hierarchical data). % of Parent Total: Displays each value as a percentage of its parent total (useful for hierarchical data). Difference From: Compares each value to a specific base item and shows the difference. % Difference From: Compares each value to a specific base item and shows the percentage difference. % of: Shows each value as a percentage of a specified base item. Running Total In: Displays a running total of values. % of Running Total In: Shows each value as a percentage of the running total

add chart to result of pivot table

The screenshot shows the Microsoft Excel interface. The ribbon is set to the 'PivotTable Analyze' tab. The 'Recommended Charts' button is highlighted with a red arrow. The PivotTable is located in the range A3:B11. The PivotTable Fields task pane is open on the right, showing the 'Country' field in the Rows area and the 'Sum of Revenue' field in the Values area.

Row Labels	Sum of Revenue
Australia	21302059
Canada	7935738
France	8432872
Germany	8976596
United Kingdom	10646196
United States	27975547
(blank)	
Grand Total	85271008

Row Labels	Sum of Revenue
Australia	24.98%
Canada	9.31%
France	9.89%
Germany	10.53%
United Kingdom	12.49%
United States	32.81%
(blank)	0.00%
Grand Total	100.00%



Formulas in Excel

1. max()

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Date	Day	Month	Year	Customer	Age_Group	CustoMale	Country	State	Product_C	Sub_Cate	Product	Order_Qty	Unit_Cost	Unit_Price	Profit	Cost	Revenue	max		
2	11/26/2013	26	November	2013	19 Youth (<21 Male			Canada	British Col	Accessori	Bike Racks	Hitch Rack	8	45	120	590	360	950	=max(Q:Q)		
3	11/26/2015	26	November	2015	19 Youth (<21 Male			Canada	British Col	Accessori	Bike Racks	Hitch Rack	8	45	120	590	360	950			
4	3/23/2014	23	March	2014	49 Adults (35 Male			Australia	New South	Accessori	Bike Racks	Hitch Rack	23	45	120	1366	1035	2401			
5	3/23/2016	23	March	2016	49 Adults (35 Male			Australia	New South	Accessori	Bike Racks	Hitch Rack	20	45	120	1188	2000	2088			
6	5/15/2014	15	May	2014	47 Adults (35 F			Australia	New South	Accessori	Bike Racks	Hitch Rack	4	45	120	238	1111	418			

2. min()

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Date	Day	Month	Year	Customer	Age_Group	CustoMale	Country	State	Product_C	Sub_Cate	Product	Order_Qty	Unit_Cost	Unit_Price	Profit	Cost	Revenue	max	min	
2	11/26/2013	26	November	2013	19 Youth (<21 Male			Canada	British Col	Accessori	Bike Racks	Hitch Rack	8	45	120	590	360	950	42978	=min(Q:Q)	
3	11/26/2015	26	November	2015	19 Youth (<21 Male			Canada	British Col	Accessori	Bike Racks	Hitch Rack	8	45	120	590	360	950			
4	3/23/2014	23	March	2014	49 Adults (35 Male			Australia	New South	Accessori	Bike Racks	Hitch Rack	23	45	120	1366	1035	2401			
5	3/23/2016	23	March	2016	49 Adults (35 Male			Australia	New South	Accessori	Bike Racks	Hitch Rack	20	45	120	1188	2000	2088			
6	5/15/2014	15	May	2014	47 Adults (35 F			Australia	New South	Accessori	Bike Racks	Hitch Rack	4	45	120	238	1111	418			
7	5/15/2016	15	May	2016	47 Adults (35 F			Australia	New South	Accessori	Bike Racks	Hitch Rack	5	45	120	297	225	522			
8	5/22/2014	22	May	2014	47 Adults (35 F			Australia	Victoria	Accessori	Bike Racks	Hitch Rack	4	45	120	199	180	379			
9	5/22/2016	22	May	2016	47 Adults (35 F			Australia	Victoria	Accessori	Bike Racks	Hitch Rack	2	45	120	100	60	100			

3. if

S3	=IF(Q4>3000,"true","not true")																				
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Date	Day	Month	Year	Customer	Age	Group	Country	State	Product	C.Sub_Cat	Category	Order_Qu	Unit_Cost	Unit_Price	Profit	Cost	Revenue	if cost > 3000 print true else print false		
2	11/26/2013	26	November	2013	19 Youth (-25 Male			Canada	British Col	Accessori	Bike Rack	Hitch Rac	8	45	120	590	360	950	not true		
3	11/26/2015	26	November	2015	19 Youth (-25 Male			Canada	British Col	Accessori	Bike Rack	Hitch Rac	8	45	120	590	360	950	not true		
4	3/23/2014	23	March	2014	49 Adults (35 Male			Australia	New South	Accessori	Bike Rack	Hitch Rac	23	45	120	1366	1035	2401	not true		
5	3/23/2016	23	March	2016	49 Adults (35 Male			Australia	New South	Accessori	Bike Rack	Hitch Rac	20	45	120	1188	2000	2088	not true		
6	5/15/2014	15	May	2014	47 Adults (35 F			Australia	New South	Accessori	Bike Rack	Hitch Rac	4	45	120	238	1111	418	not true		
7	5/15/2016	15	May	2016	47 Adults (35 F			Australia	New South	Accessori	Bike Rack	Hitch Rac	5	45	120	297	225	522	not true		
8	5/22/2014	22	May	2014	47 Adults (35 F			Australia	Victoria	Accessori	Bike Rack	Hitch Rac	4	45	120	199	180	379	true		
9	5/22/2016	22	May	2016	47 Adults (35 F			Australia	Victoria	Accessori	Bike Rack	Hitch Rac	2	45	120	100	4000	190	not true		
10	2/22/2014	22	February	2014	35 Adults (35 Male			Australia	Victoria	Accessori	Bike Rack	Hitch Rac	22	45	120	1096	990	2086	not true		
11	2/22/2016	22	February	2016	35 Adults (35 Male			Australia	Victoria	Accessori	Bike Rack	Hitch Rac	21	45	120	1046	945	1991	not true		
12	7/30/2013	30	July	2013	32 Young Ad F			Australia	Victoria	Accessori	Bike Rack	Hitch Rac	8	45	120	398	360	758	not true		
13	7/30/2015	30	July	2015	32 Young Ad F			Australia	Victoria	Accessori	Bike Rack	Hitch Rac	8	45	120	4000	360	758	true		
14	7/15/2013	15	July	2013	34 Young Ad Male			Australia	Victoria	Accessori	Bike Rack	Hitch Rac	7	45	120	349	4000	664	not true		
15	7/15/2015	15	July	2015	34 Young Ad Male			Australia	Victoria	Accessori	Bike Rack	Hitch Rac	7	45	120	349	315	664	true		
16	8/2/2013	2	August	2013	29 Young Ad Male			Canada	British Col	Accessori	Bike Rack	Hitch Rac	5	45	120	369	4000	594	not true		
17	8/2/2015	2	August	2015	29 Young Ad Male			Canada	British Col	Accessori	Bike Rack	Hitch Rac	7	45	120	517	315	832	not true		
18	9/2/2013	2	September	2013	29 Young Ad Male			Canada	British Col	Accessori	Bike Rack	Hitch Rac	2	45	120	148	90	238	not true		
19	9/2/2015	2	September	2015	29 Young Ad Male			Canada	British Col	Accessori	Bike Rack	Hitch Rac	1	45	120	74	45	119			
20	1/22/2014	22	January	2014	29 Young Ad Male			Canada	British Col	Accessori	Bike Rack	Hitch Rac	1	45	120	74	45	119			
21	1/22/2016	22	January	2016	29 Young Ad Male			Canada	British Col	Accessori	Bike Rack	Hitch Rac	1	45	120	74	45	119			
22	5/17/2014	17	May	2014	29 Young Ad Male			Canada	British Col	Accessori	Bike Rack	Hitch Rac	6	45	120	443	270	713			
23	5/17/2016	17	May	2016	29 Young Ad Male			Canada	British Col	Accessori	Bike Rack	Hitch Rac	8	45	120	590	360	950			
24	3/27/2014	27	March	2014	51 Adults (35 Male			United Sta	Oregon	Accessori	Bike Rack	Hitch Rac	9	45	120	524	405	929			

4. ifs

S4		=IFS(Q5>3000,"true",Q5<5000,"wow")									
	J	K	L	M	N	O	P	Q	R	S	T
1	Product_C	Sub_Cat	Product	Order_Qu	Unit_Cost	Unit_Price	Profit	Cost	Revenue	if cost > 3000 print true , if cost < 5000 wow	
2	Accessorie	Bike Racks	Hitch Rack	8	45	120	590	360	950	wow	
3	Accessorie	Bike Racks	Hitch Rack	8	45	120	590	360	950	wow	
4	Accessorie	Bike Racks	Hitch Rack	23	45	120	1366	1035	2401	wow	
5	Accessorie	Bike Racks	Hitch Rack	20	45	120	1188	2000	2088	wow	
6	Accessorie	Bike Racks	Hitch Rack	4	45	120	238	1111	418	wow	
7	Accessorie	Bike Racks	Hitch Rack	5	45	120	297	225	522	wow	
8	Accessorie	Bike Racks	Hitch Rack	4	45	120	199	180	379	true	
9	Accessorie	Bike Racks	Hitch Rack	2	45	120	100	4000	190	wow	
10	Accessorie	Bike Racks	Hitch Rack	22	45	120	1096	990	2086	wow	
11	Accessorie	Bike Racks	Hitch Rack	21	45	120	1046	945	1991	wow	
12	Accessorie	Bike Racks	Hitch Rack	8	45	120	398	360	758	wow	
13	Accessorie	Bike Racks	Hitch Rack	8	45	120	4000	360	758	true	
14	Accessorie	Bike Racks	Hitch Rack	7	45	120	349	4000	664	wow	
15	Accessorie	Bike Racks	Hitch Rack	7	45	120	349	315	664	true	
16	Accessorie	Bike Racks	Hitch Rack	5	45	120	369	4000	594	wow	
17	Accessorie	Bike Racks	Hitch Rack	7	45	120	517	315	832	wow	
18	Accessorie	Bike Racks	Hitch Rack	2	45	120	148	90	238	wow	
19	Accessorie	Bike Racks	Hitch Rack	1	45	120	74	45	119		
20	Accessorie	Bike Racks	Hitch Rack	1	45	120	74	45	119		
21	Accessorie	Bike Racks	Hitch Rack	1	45	120	74	45	119		

5. LEN

S2												=LEN(J2)	
	J	K	L	M	N	O	P	Q	R	S	T		
1	Product_C	Sub_Cat	Product	Order_Qua	Unit_Cost	Unit_Price	Profit	Cost	Revenue	len			
2	Accessorie	Bike Racks	Hitch Rack	8	45	120	590	360	950	11			
3	Accessorie	Bike Racks	Hitch Rack	8	45	120	590	360	950				
4	Accessorie	Bike Racks	Hitch Rack	23	45	120	1366	1035	2401				
5	Accessorie	Bike Racks	Hitch Rack	20	45	120	1188	2000	2088				
6	Accessorie	Bike Racks	Hitch Rack	4	45	120	238	1111	418				
7	Accessorie	Bike Racks	Hitch Rack	5	45	120	297	225	522				
8	Accessorie	Bike Racks	Hitch Rack	4	45	120	199	180	379				
9	Accessorie	Bike Racks	Hitch Rack	2	45	120	100	4000	190				
10	Accessorie	Bike Racks	Hitch Rack	22	45	120	1096	990	2086				
11	Accessorie	Bike Racks	Hitch Rack	21	45	120	1046	945	1991				
12	Accessorie	Bike Racks	Hitch Rack	8	45	120	398	360	758				
13	Accessorie	Bike Racks	Hitch Rack	8	45	120	4000	360	758				

6. left

S2

AutoSave ☐ Sales

File Home Insert Page Layout Formulas Data Review View Automate Help

Clipboard Font Alignment Number Conditional Formatting Cells Editing Sensitivity Add-ins Analyze Data

POSSIBLE DATA LOSS Some features might be lost if you save this workbook in the comma-delimited (.csv) format. To preserve these features, save it in an Excel file format. Don't show again Save As...

S2 =RIGHT(J2,2)

	J	K	L	M	N	O	P	Q	R	S	T
1	Product_C	Sub_Cat	Product	Order_Que	Unit_Cost	Unit_Price	Profit	Cost	Revenue		right
2	Accessorie	Bike Racks	Hitch Rack	8	45	120	590	360	950		es
3	Accessorie	Bike Racks	Hitch Rack	8	45	120	590	360	950		
4	Accessorie	Bike Racks	Hitch Rack	23	45	120	1268	1025	2401		

[illegible]

8. trim (remove any spaces before or after text)

A	B	C	D	E	F	G	H	I	J	K	L
EmployeeID	FirstName	LastName	Age	Gender	JobTitle	Salary	StartDate	EndDate			
1001	amit	learning	17	M	SalesMan	100000	11/2/2024	11/2/2025			
1002	learning	amit	22	M	web developer	30000	11/3/2024	11/3/2025			
1003	sameh	albadry	27	M	data analyst	20000	11/4/2024	11/4/2025			
1004	farah	sameh	32	F	HR	19000	11/5/2024	11/5/2025			
1005	salma	salah	37	F	HR	18000	11/6/2024	11/6/2025			
1006	banys	mohamed	42	F	HR	17000	11/7/2024	11/7/2025			
1007	shmed	mohamed	47	M	flutter dev	16000	11/8/2024	11/8/2025			
1008	mohamed	shmed	52	M	web developer	15000	11/9/2024	11/9/2025			
1009	mazen	ashraf	57	M	data analyst	14000	11/10/2024	11/10/2025			

Date To Text

11/02/2024

Trim

amit

Right

2024

LEFT

11

9. concatenate

[illegible]

10. substitute

Excel Interface:

- Formulas Tab:** Shows the formula bar with the active formula: `=SUBSTITUTE(A19,"/", "-")`.
- Data Table:** A table with employee information.

A	B	C	D	E	F	G	H	I	J	K	L	M
EmployeeID	FirstName	LastName	Age	Gender	JobTitle	Salary	StartDate	EndDate				
1001	amit	learning	17	M	SalesMan	100000	11/2/2024	11/2/2025				
1002	learning	amit	22	M	web developer	30000	11/3/2024	11/3/2025				
1003	sameh	elbadry	27	M	data analyst	20000	11/4/2024	11/4/2025				
1004	farah	sameh	32	F	HR	18000	11/5/2024	11/5/2025				
1005	salma	salah	37	F	HR	18000	11/6/2024	11/6/2025				
1006	banyan	mohamed	42	F	HR	17000	11/7/2024	11/7/2025				
1007	shmed	mohamed	47	M	flutter dev	16000	11/8/2024	11/8/2025				
1008	mohamed	shmed	52	M	web developer	15000	11/9/2024	11/9/2025				
1009	mazen	schraf	57	M	data analyst	14000	11/10/2024	11/10/2025				

String Manipulation Examples:

- Date To Text:** Converts the date "11/02/2024" from text format to a date value.
- Trim:** Removes leading and trailing spaces from the text "amit".
- Right:** Extracts the rightmost characters from the text "2024".
- LEFT:** Extracts the leftmost characters from the text "11".
- Substitute:** Replaces all occurrences of "/" with "-" in the text "11-02-2024".

upperCase

[illegible]

LowerCase

[illegible]

11. SUM , SUMIF , SUMIFS

[illegible][illegible]

=SUMIFS(G2:G10,E2:E10,"M",G2:G10,">30000")												
	A	B	C	D	E	F	G	H	I	J	K	L
	EmployeeID	FirstName	lastName	Age	Gender	JobTitle	Salary	StartDate	EndDate		sumif	sumifs
2	1001	amit	learning	17 M		SalesMan	10000	11/2/2024	11/2/2025			
3	1002	learning	amit	22 M		web developer	30000	11/3/2024	11/3/2025		249000	100000
4	1003	sameh	albadry	27 M		data analyst	20000	11/4/2024	11/4/2025			
5	1004	farah	sameh	32 F		HR	19000	11/5/2024	11/5/2025			
6	1005	salma	salah	37 F		HR	18000	11/6/2024	11/6/2025			
7	1006	banyia	mophamed	42 F		HR	17000	11/7/2024	11/7/2025			
8	1007	ahmed	mohamed	47 M		flutter dev	16000	11/8/2024	11/8/2025			
9	1008	mohamed	ahmed	52 M		web developer	15000	11/9/2024	11/9/2025			
10	1009	mazen	ashraf	57 M		data analyst	14000	11/10/2024	11/10/2025			
11												

12. COUNT , COUNTIF , COUNTIFS

[illegible][illegible]

=COUNTIFS(A2:A10,">1004",E2:E10,"M")												
A	B	C	D	E	F	G	H	I	J	K	L	M
EmployeeID	FirstName	lastName	Age	Gender	JobTitle	Salary	StartDate	EndDate	COUNT	COUNTIF	COUNTIFS	
1001	amit	learning	17 M		SalesMan	100000	11/2/2024	11/2/2025				
1002	learning	amit	22 M		web developer	30000	11/3/2024	11/3/2025	9	2	3	
1003	sameh	albady	27 F		data analyst	20000	11/4/2024	11/4/2025				
1004	farah	sameh	32 M		HR	19000	11/5/2024	11/5/2025				
1005	salma	salah	37 F		HR	18000	11/6/2024	11/6/2025				
1006	barnya	moghamed	42 F		HR	17000	11/7/2024	11/7/2025				
1007	ahmed	mohamed	47 M		flutter dev	16000	11/8/2024	11/8/2025				
1008	mohamed	ahmed	52 M		web developer	15000	11/9/2024	11/9/2025				
1009	mazen	ashraf	57 M		data analyst	14000	11/10/2024	11/10/2025				

13. days , networkDays

	EmployeeID	FirstName	lastName	Age	Gender	JobTitle	Salary	StartDate	EndDate	Days	NetworkDays	holiday
1	1001	amit	learning	17	M	SalesMan	100000	11/2/2024	11/2/2025	365	256	11/02/2024
2	1002	learning	amit	22	M	web developer	30000	11/3/2024	11/3/2025	365	257	11/03/2024
3	1003	sameh	albady	27	M	data analyst	20000	11/4/2024	11/4/2025	365	258	11/04/2024
4	1004	farah	sameh	32	F	HR	19000	11/5/2024	11/5/2025	365	259	11/05/2024
5	1005	salma	salah	37	F	HR	18000	11/6/2024	11/6/2025	365	260	11/06/2024
6	1006	bamyia	mophamed	42	F	HR	17000	11/7/2024	11/7/2025	365	261	11/07/2024
7	1007	ahmed	mohamed	47	M	flutter dev	16000	11/8/2024	11/8/2025	365	261	
8	1008	mohamed	ahmed	52	M	web developer	15000	11/9/2024	11/9/2025	365	260	
9	1009	mazen	ashraf	57	M	data analyst	14000	11/10/2024	11/10/2025	365	261	

14. xlookup

AutoSave Off

Sales

sameh elbadry

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CellsEditingSensitivityAdd-ins

POSSIBLE DATA LOSSSome features might be lost if you save this workbook in the comma-delimited (.csv) format. To preserve these features, save it in an Excel file format.

C4:fx=XLOOKUP(A4,H2:H10,J2:J10)

	A	B	C	D	E	F	G	H
1							EmployeeID	FirstName
2							1001	amit
3	Full Name	End Date	age				1002	learning
4	amit	11/2/2024	17				1003	sameh
5							1004	farah
6							1005	salma
7							1006	bamyia
8							1007	ahmed
9							1008	mohamed
10							1009	mazen
11								
12								

Function Arguments

XLOOKUP

Lookup_value

D10

= 669

Lookup_array

A7:A17

= {357;206;819;223;114;776;669;531;63...

Return_array

B7:B17

= {"amit";"learning ";"sameh";"farah";"...

If_not_found

"NOT FOUND"

= "NOT FOUND"

Match_mode

= number

= "ahmed"

Searches a range or an array for a match and returns the corresponding item from a second range or array. By default, an exact match is used.

Lookup_value is the value to search for.

Formula result = ahmed

Help on this function

OK

Cancel

E10 \times \checkmark fx =XLOOKUP(D10,A7:A17,B7:B17,"NOT FOUND")

	A	B	C	D	E	F
1						
2						
3	Full Name	End Date	age			
4	amit	11/2/2024		17		
5			#N/A			
6	EmployeeID	EmployeeName				
7	357	amit				
8	206	learning				
9	819	sameh				
10	223	farah				
11	114	salma				
12	776	bamya				
13	669	ahmed				
14	531	mohamed				
15	631	mazen				
16	146	talaat				
17	743	osama				
18						

EmployeeID	EmployeeName
357	amit
669	ahmed
114	

15. VLOOKUP

AutoSave (Off) Sales sameh elbadry

File Home Insert Page Layout Formulas Data Review View Automate Help Comments Share

Clipboard Font Alignment Number Conditional Formatting Format as Table Cell Styles Styles Cells Editing Sensitivity Add-ins Analyze Data Sensitivity Add-ins

POSSIBLE DATA LOSS Some features might be lost if you save this workbook in the comma-delimited (.csv) format. To preserve these features, save it in an Excel file format. Don't show again Save As...

E9 \times \checkmark fx

	A	B	C	D	E	F	G	H
1							EmployeeID	FirstName
2							1001	amit
3	Full Name	End Date	age				1002	learning
4	amit	11/2/2024		17			1003	sameh
5			#N/A				1004	farah
6	EmployeeID	EmployeeName					1005	salma
7	357	amit					1006	bamya
8	206	learning					1007	ahmed
9	819	sameh					1008	mohamed
10	223	farah					1009	mazen
11	114	salma						
12	776	bamya						
13	669	ahmed						
14	531	mohamed						
15	631	mazen						
16	146	talaat						
17	743	osama						
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								

EmployeeID	EmployeeName
357	amit
669	ahmed
114	

Insert Function

Search for a function:

VLOOKUP

Go

Or select a category: Recommended

Select a function:

VLOOKUP

VLOOKUP(lookup_value,table_array,col_index_num,range_lookup)
 Looks for a value in the leftmost column of a table, and then returns a value in the same row from a column you specify. By default, the table must be sorted in an ascending order.

[Help on this function](#)

OK Cancel

LOOKUP_VALUE: EL VALUE ELLY BADAWR 3LYHA

TABLE_ARRAY: EL AREA ELLY HA SEARCH FYHA AW EL TABLE

COL_INDEX_NUM: A RETURN VALUE MN COLUMN RAKAM KAM

RANGE_LOOKUP: LW FY VALUE AORYBA A3ML APROX WLA LA (LA = FALSE)

Function Arguments

VLOOKUP

Lookup_value	D9	= 357
Table_array	A7:B17	= {357,"amit";206,"learning ";819,"sameh
Col_index_num	2	= 2
Range_lookup	False	= FALSE

= "amit"

Looks for a value in the leftmost column of a table, and then returns a value in the same row from a column you specify. By default, the table must be sorted in an ascending order.

Range_lookup is a logical value: to find the closest match in the first column (sorted in ascending order) = TRUE or omitted; find an exact match = FALSE.

Formula result = amit

[Help on this function](#)

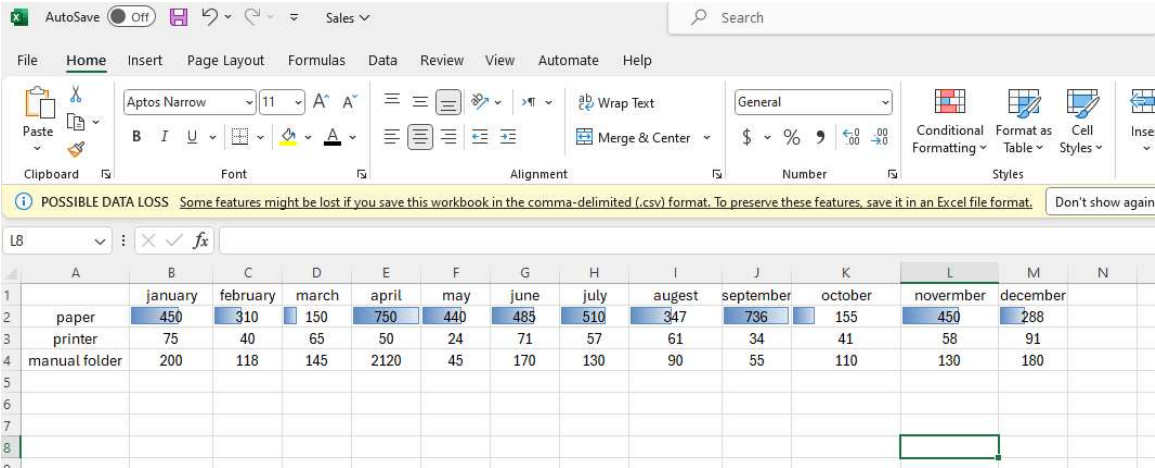
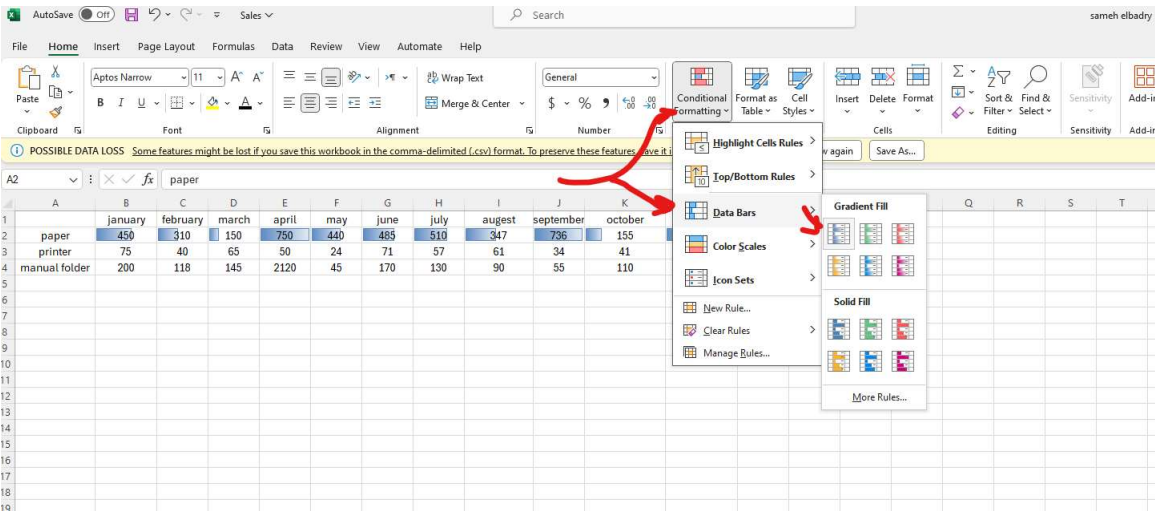
OK Cancel

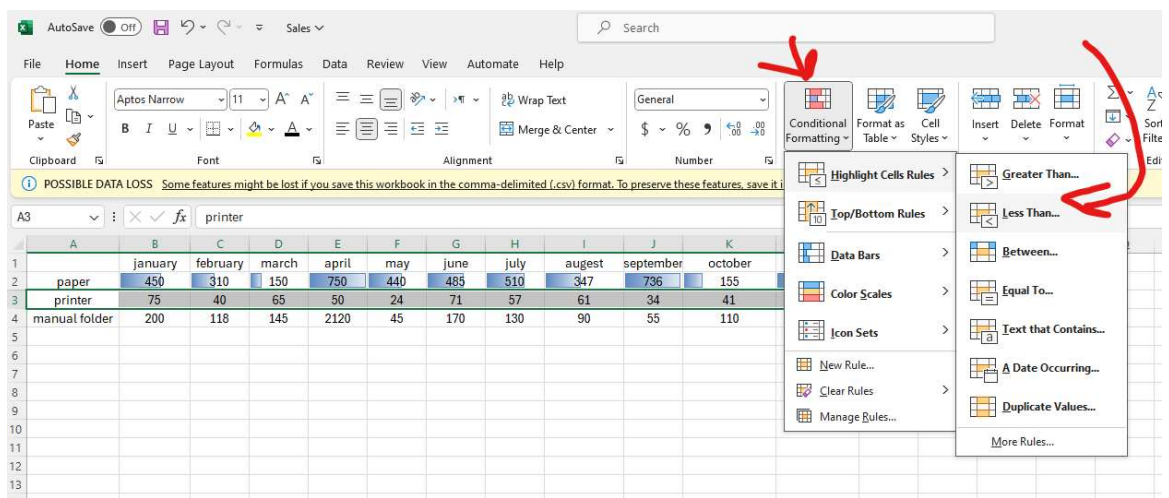
EmployeeID	EmployeeName
357	amit
206	learning
819	sameh
223	farah
114	salma
776	bamya
669	ahmed
531	mohamed
631	mazen
146	talaat
743	osama

EmployeeID	EmployeeName
357	amit
669	
114	

Conditional Formatting

format cell according to condition





	January	February	March	April	May	June	July	August	September	October	November	December
paper	450	310	150	750	440	485	510	347	736	155	450	288
printer	75	40	65	50	24	71	57	61	34	41	58	91
manual folder	200	118	145	2120	45	170	130	90	55	110	130	180

Charts in Excel

type of charts

1. Bar Chart:

Uses:

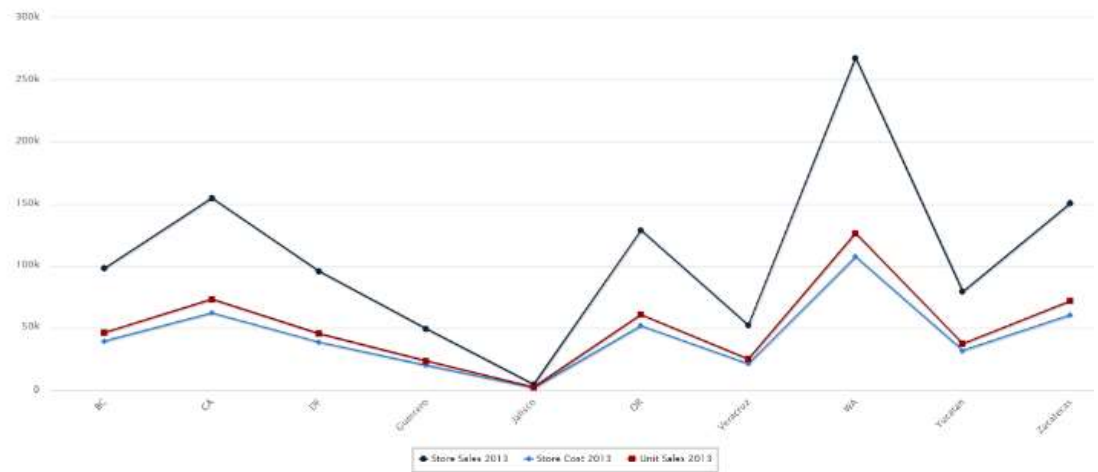
1. Comparing categorical data.
2. Trend analysis over time.



2.Line Chart:

Uses:

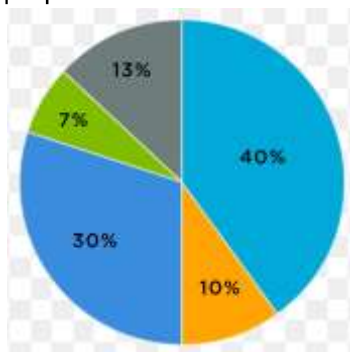
1. Showing trends over time.
2. Comparing multiple variables.



3.Pie Chart:

Uses:

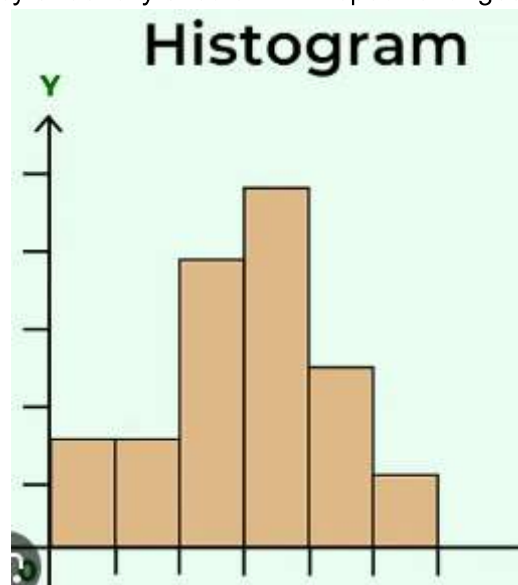
1. Showing the proportion of parts to the whole.
2. Highlighting percentages and proportions.



4.Histogram:

Uses:

1. Visualizing the distribution of continuous data.
2. Identifying the frequency or density of data within specific ranges.



5.Scatter Plot:

Uses:

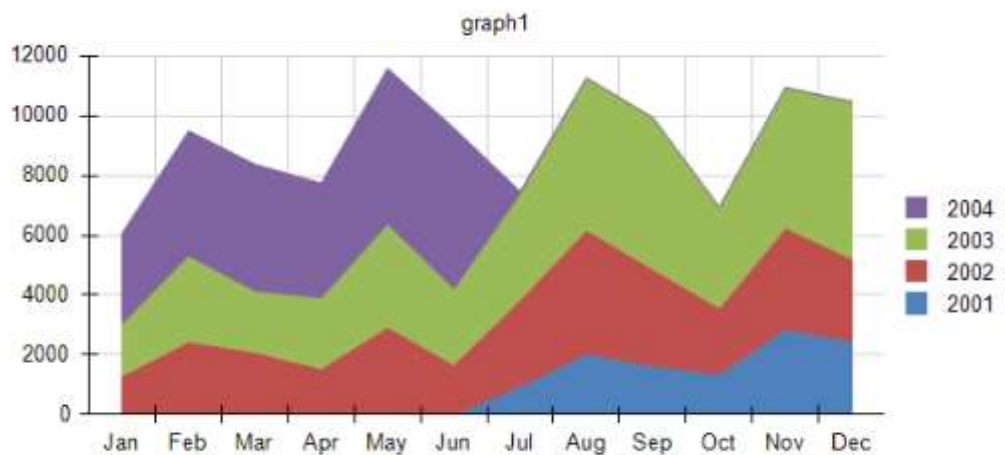
1. Displaying relationships between two variables.
2. Identifying correlations or clusters in data.



6.Area Chart:

Uses:

1. Showing trends over time similar to line charts.
2. Illustrating cumulative totals over time.



7.Bubble Chart:

Uses:

1. Displaying three dimensions of data (x-axis, y-axis, bubble size).
2. Comparing relationships between variables with varying bubble sizes.

TASK (SALES DATASET)

data preprocessing

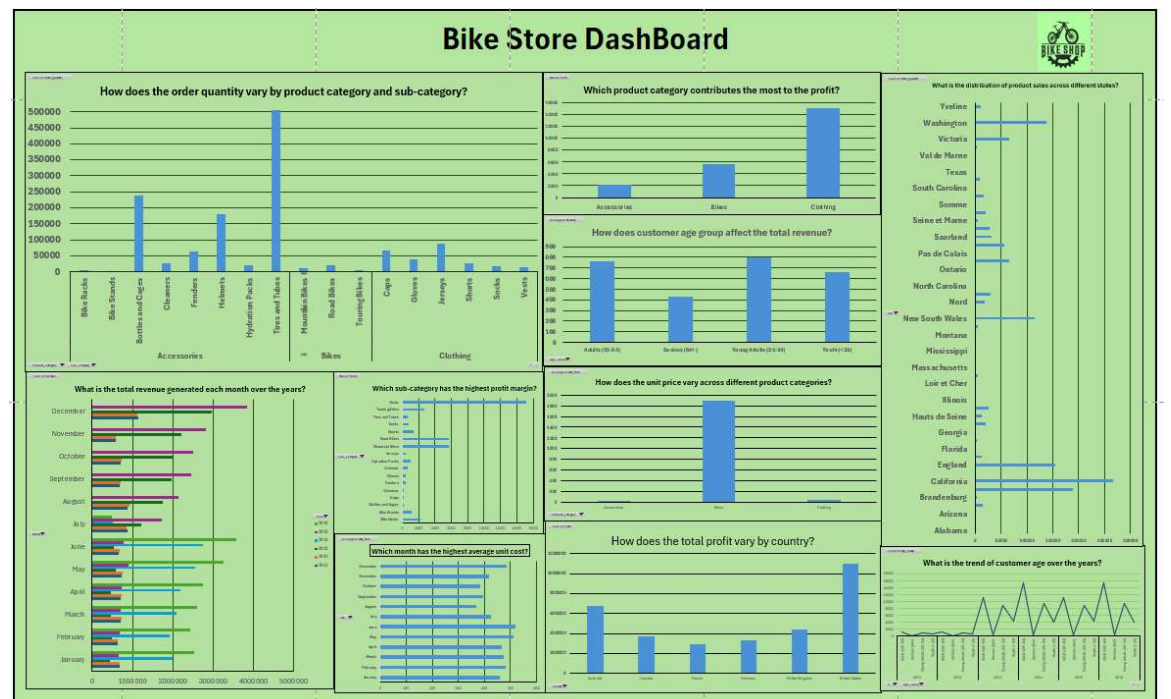
1. remove duplicated data

The screenshot shows the Microsoft Excel interface with the 'Data' tab selected. A red arrow points to the 'Remove Duplicates' button in the 'Data Tools' group. Below the ribbon, a data table is visible with columns: Date, Day, Month, Year, Customer, Age, Group, Customer, Gender, Country, State, Product, Category, Sub, Category, Product, Order, Qu, Unit, Cost, Unit, Price, Profit. The table contains 36 rows of data.

2. see data in each column using filter

The screenshot shows a pivot table and a pivot chart. The pivot table is filtered by 'Year' and shows 'Sum of Revenue' for each month. The pivot chart is a bar chart showing the same data.

Row Labels	2011	2012	2013	2014	2015	2016	Grand Total
January	675193	671695	426890	1991633	660671	2535084	6961166
February	635179	637820	483909	1934409	678171	2436346	6805834
March	703081	729951	466422	2092223	714008	2600455	7306140
April	698762	729947	472219	2188979	730392	2748555	7568874
May	734537	763465	585185	2562557	893563	3249980	8789287



In []:

