

Module 7: Pivot Tables and Pivot Charts


1. Pivot Tables

What is a Pivot Table?






A **Pivot Table** is a powerful Excel tool used to **summarize, analyze, explore, and present data**.

It lets you:

- Rearrange data dynamically
- Group, filter, and sort data without formulas
- Quickly create reports and summaries from large datasets







 No need for complex formulas like SUMIF, COUNTIF, AVERAGEIFS—a Pivot Table can handle it all!

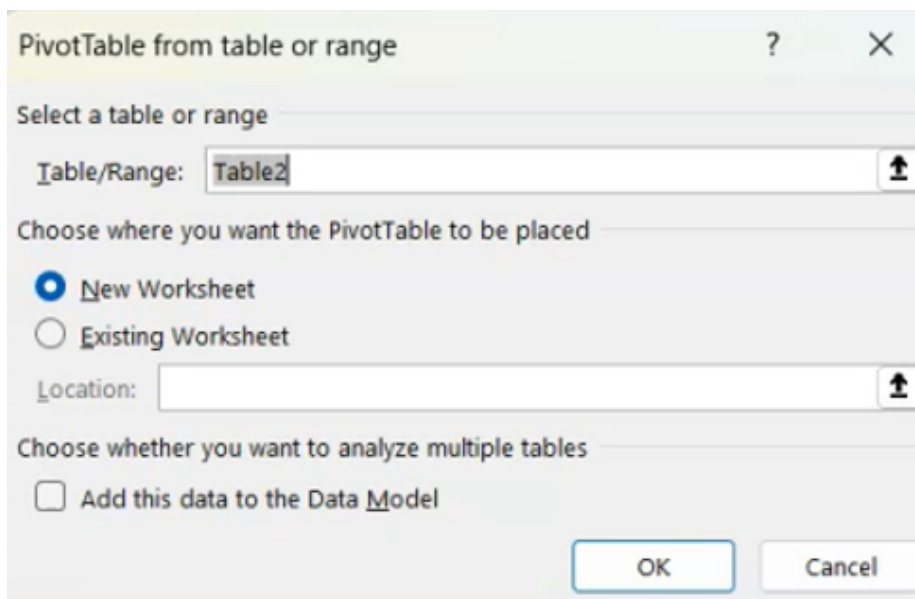
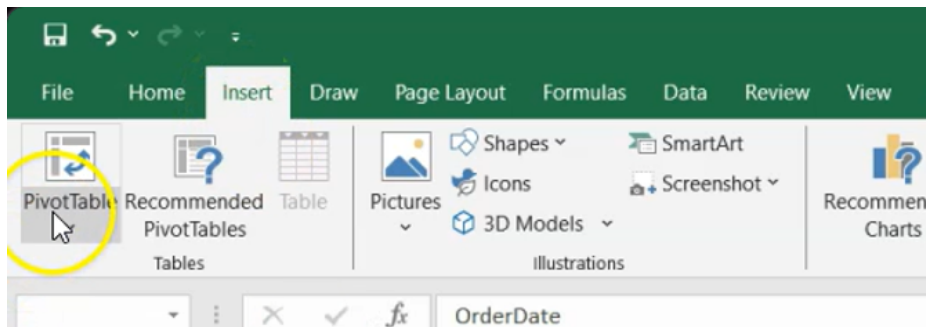
Why Use a Pivot Table?

Benefit	Description
 Quick Summary	Create totals, averages, counts in seconds
 Interactive Analysis	Rearrange fields without changing data
 Organized View	Display hierarchical or grouped data clearly
 Dynamic	Easily refresh data after updates
 Chart Integration	Combine with Pivot Charts for visual insights

How to Create a Pivot Table





Step-by-Step:


Step	Action
 1	Select any cell inside your dataset
 2	Use shortcut Ctrl + Shift + → + ↓ to select full data
 3	Go to Insert → PivotTable (first icon on left)
 4	In the dialog box:• Ensure full table range is selected• Choose “New Worksheet” or “Existing Worksheet”
 5	Click OK – the Pivot Table Fields pane will appear
 6	Drag and drop fields to build your table










Pivot Table Fields – Explained

The **PivotTable Fields** pane has 4 key areas:

Area	Function	Example
 Filters	Adds dropdown filter to the entire pivot table	Year, Product Category
 Values	What you want to summarize (numbers)	Sales, Profit, Quantity
 Rows	Becomes row labels	Region, City
 Columns	Becomes column labels	Month, Year

 You can drag the same field to different zones for different views (e.g., Sales in both Values and Filters)

PivotTable Analyze Tab – Explained

Tool	Description
 Refresh	Update pivot after data changes
 Insert Slicer	Add interactive filters
 Field List	Show/hide the Pivot Fields pane
 Field Headers	Toggle row/column headers
 Calculated Field	Create custom formulas
 Actions → Move PivotTable	Move table to another location
 Show Details	Double-click cell to see source data

Accessible only when the Pivot Table is selected.

Example

Dataset:

	A	B	C	D	E	F	G	H
1	OrderDate	Region	Manager	SalesMan	Item	Units	Unit_price	Sale_amt
2	1-6-18	East	Martha	Alexander	Television	95	1,198.00	1,13,810.00
3	1-23-18	Central	Hermann	Shelli	Home Theater	50	500.00	25,000.00
4	2-9-18	Central	Hermann	Luis	Television	36	1,198.00	43,128.00
5	2-26-18	Central	Timothy	David	Cell Phone	27	225.00	6,075.00
6	3-15-18	West	Timothy	Stephen	Television	56	1,198.00	67,088.00
7	4-1-18	East	Martha	Alexander	Home Theater	60	500.00	30,000.00
8	4-18-18	Central	Martha	Steven	Television	75	1,198.00	89,850.00
9	5-5-18	Central	Hermann	Luis	Television	90	1,198.00	1,07,820.00
10	5-22-18	West	Douglas	Michael	Television	32	1,198.00	38,336.00
11	6-8-18	East	Martha	Alexander	Home Theater	60	500.00	30,000.00
12	6-25-18	Central	Hermann	Sigal	Television	90	1,198.00	1,07,820.00
13	7-12-18	East	Martha	Diana	Home Theater	29	500.00	14,500.00
14	7-29-18	East	Douglas	Karen	Home Theater	81	500.00	40,500.00
15	8-15-18	East	Martha	Alexander	Television	35	1,198.00	41,930.00
16	9-1-18	Central	Douglas	John	Desk	2	125.00	250.00
17	9-18-18	East	Martha	Alexander	Video Games	16	58.50	936.00
18	10-5-18	Central	Hermann	Sigal	Home Theater	28	500.00	14,000.00
19	10-22-18	East	Martha	Alexander	Cell Phone	64	225.00	14,400.00
20	11-8-18	East	Douglas	Karen	Cell Phone	15	225.00	3,375.00
21	11-25-18	Central	Hermann	Shelli	Video Games	96	58.50	5,616.00
22	12-12-18	Central	Douglas	John	Television	67	1,198.00	80,266.00
23	12-29-18	East	Douglas	Karen	Video Games	74	58.50	4,329.00
24	1-15-19	Central	Timothy	David	Home Theater	46	500.00	23,000.00
25	2-1-19	Central	Douglas	John	Home Theater	87	500.00	43,500.00
26	2-18-19	East	Martha	Alexander	Home Theater	4	500.00	2,000.00
27	3-7-19	West	Timothy	Stephen	Home Theater	7	500.00	3,500.00
28	3-24-19	Central	Hermann	Luis	Video Games	50	58.50	2,925.00

Pivot Table:

Sum of Units		Column Labels				
Row Labels	Cell Phone	Desk	Home Theater	Television	Video Games	Grand Total
Jan				96	95	191
Feb	27			91	36	154
Mar				7	56	113
Apr	96			60	141	297
May				80	175	255
Jun		5		60	90	155
Jul				110		117
Aug		3			35	42
Sep	76	2			7	16
Oct	64			85	14	163
Nov	15			11		96
Dec				122	67	74
Grand Total	278	10		722	716	395
						2121





2. Pivot Charts

What is a Pivot Chart?

A **Pivot Chart** is a visual representation of a Pivot Table.

It updates **automatically** when the Pivot Table changes.

Why Use Pivot Charts?

Benefit	Description
 Dynamic	Updates with pivot table filters
 Clear Visuals	Converts summaries into charts
 Interactive	Linked to slicers & filters
 Easy to Understand	Great for reports & presentations

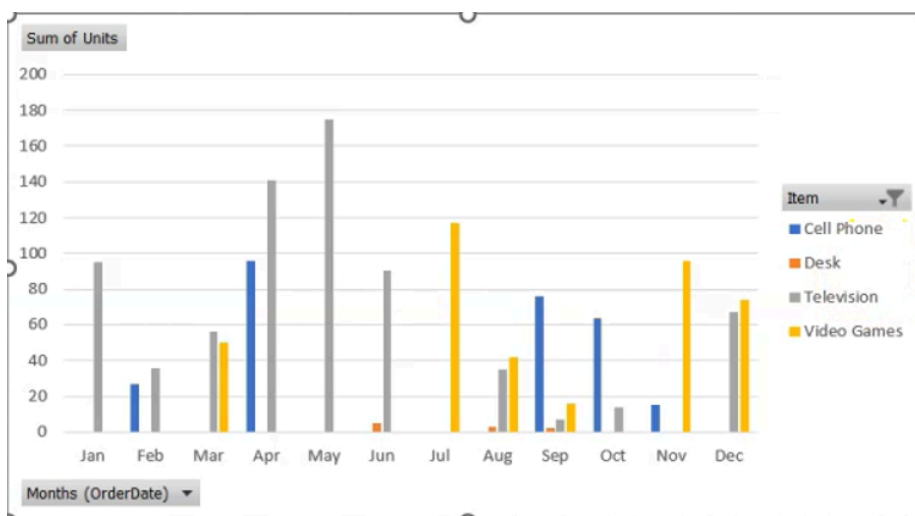
How to Create a Pivot Chart

Step	Action
1	Create a Pivot Table first
2	Select the Pivot Table
3	Go to Insert → Charts → Recommended Chart or pick any chart
4	The chart will be created and linked to the Pivot Table
5	Use filters/slicers to explore data interactively

You can use column, bar, line, pie, and combo charts.

Example

Pivot Chart for above example:





Additional Notes










Options in Pivot Table → Right-Click Menu:

Option	Function
Sort	Sort data (A-Z, Z-A, Ascending, Descending)
Value Field Settings	Change from Sum to Average, Count, Max, etc.
Number Format	Format as currency, percentage, decimal
Group	Group data (e.g., by months or years)
Ungroup	Remove grouping
Show Values As	Show % of total, % difference, running total etc.



Key Points / Important Reminders

-  Use **Ctrl + Shift + Arrow** keys to quickly select full datasets
-  Always check that your table/range is fully selected before inserting
-  Use Refresh to update after editing source data
-  You can drag one field to both **Rows** and **Values** (e.g., count of product names)
-  Pivot Charts are linked to Pivot Tables – changes reflect instantly
-  Customize summary types using **Value Field Settings**
-  Use **Slicers and Filters** for interactive dashboards