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# *Designing a Sales dashboard in Excel*

## *Business Analytics with Excel*

### *Course-end Project 1*

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#### **Description:**

Analyse the sales based on various product categories.

#### **Dataset Description:**

The dataset in file E-Commerce Dashboard dataset.xlsx contains sales data for different product categories.

#### **The following are the features in the dataset:**

Order ID	Unique Order ID of a product
Order Date	Order Placement Date
Ship Date	Shipment Date of the placed order
Aging	Used to Create Histogram Bin
Ship Mode	Shipment mode of placed order
Product Category	Product Category
Product	Name of the Product
Sales	Sales Amount
Quantity	The amount or number of a material

<b>Discount</b>	<b>A deduction from the usual cost of something</b>
<b>Profit</b>	<b>A financial advantage or benefit</b>
<b>Shipping Cost</b>	<b>The amount required to ship the placed order</b>
<b>Order Priority</b>	<b>Precedence of placed order</b>
<b>Customer ID</b>	<b>Unique Customer ID</b>
<b>Customer Name</b>	<b>Name of the Customer</b>
<b>City</b>	<b>Unique City Name</b>
<b>State</b>	<b>Unique State Name</b>
<b>Country</b>	<b>Unique Country Name</b>
<b>Region</b>	<b>Especially the part of a country</b>
<b>Months</b>	<b>The month of placing the order</b>

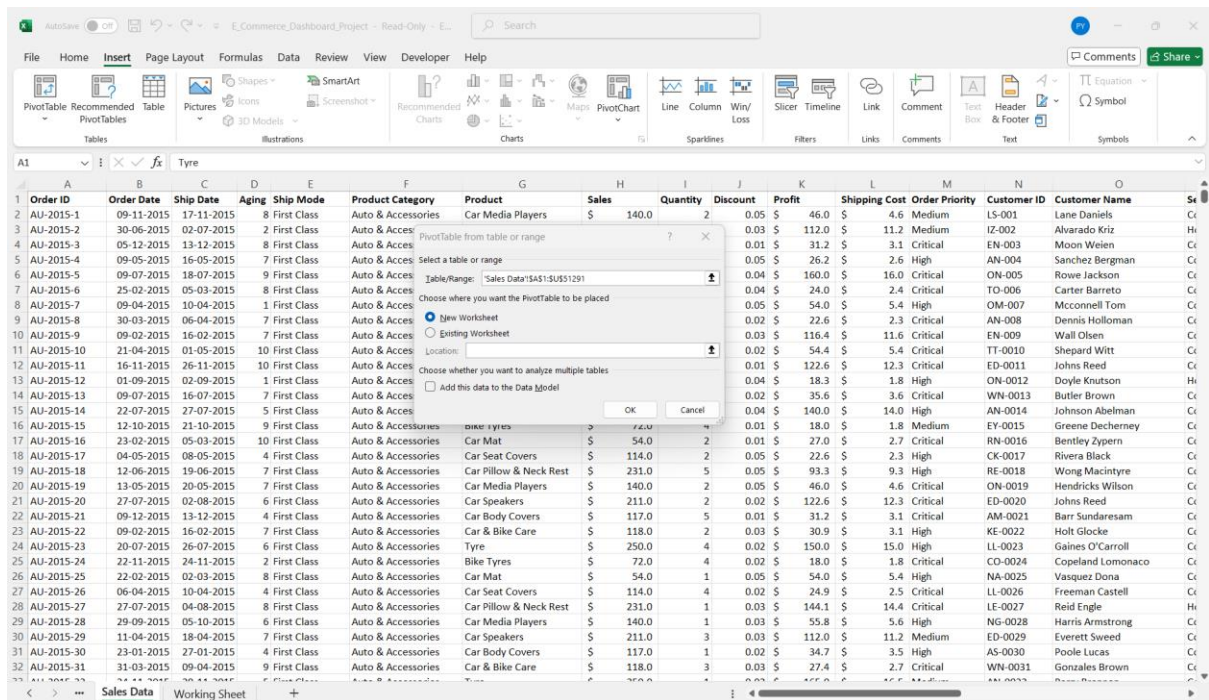
**Tools required: Microsoft Excel, Data Analysis Add-in**

### **Task:1**

- **Use the saved Sample E-Commerce database**
- **Prepare a table of Sales and Profit month-wise in a working sheet**

### **Step:1**

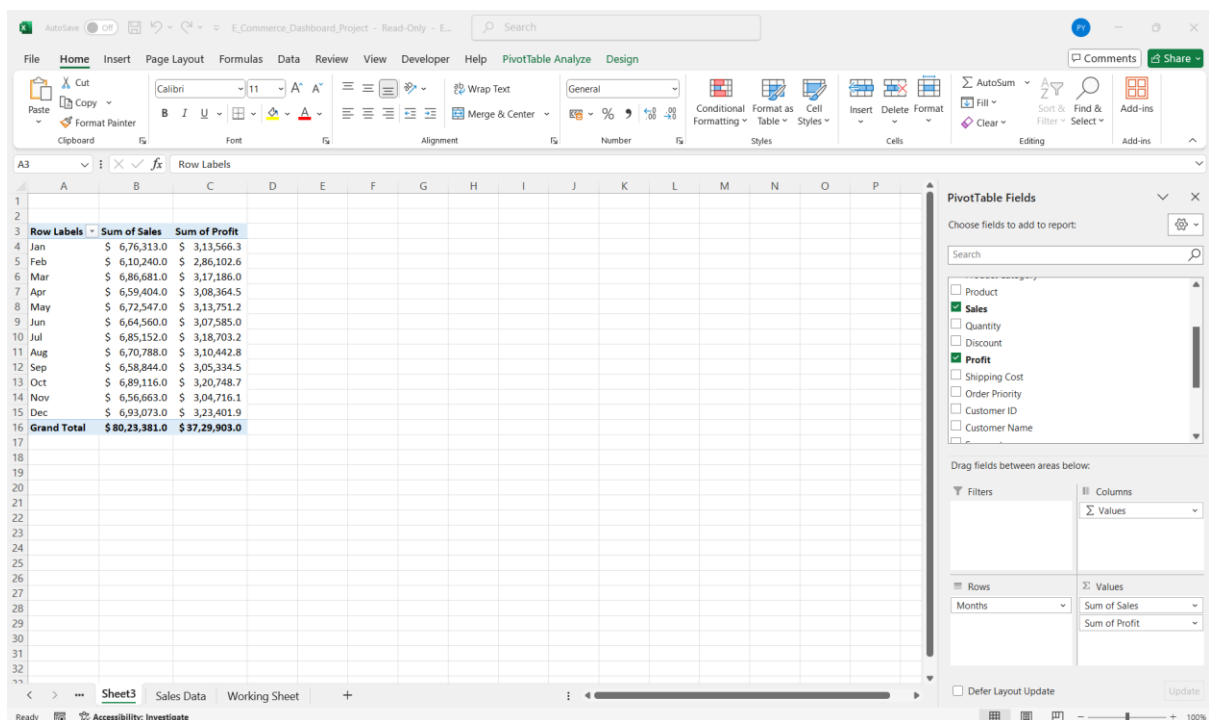
- **Click on Insert, Select Pivot Table, Select New Worksheet, Click on OK.**



## Step:2

Choose Fields to add to report:

Select Month, Sales, Profits in the Pivot table.

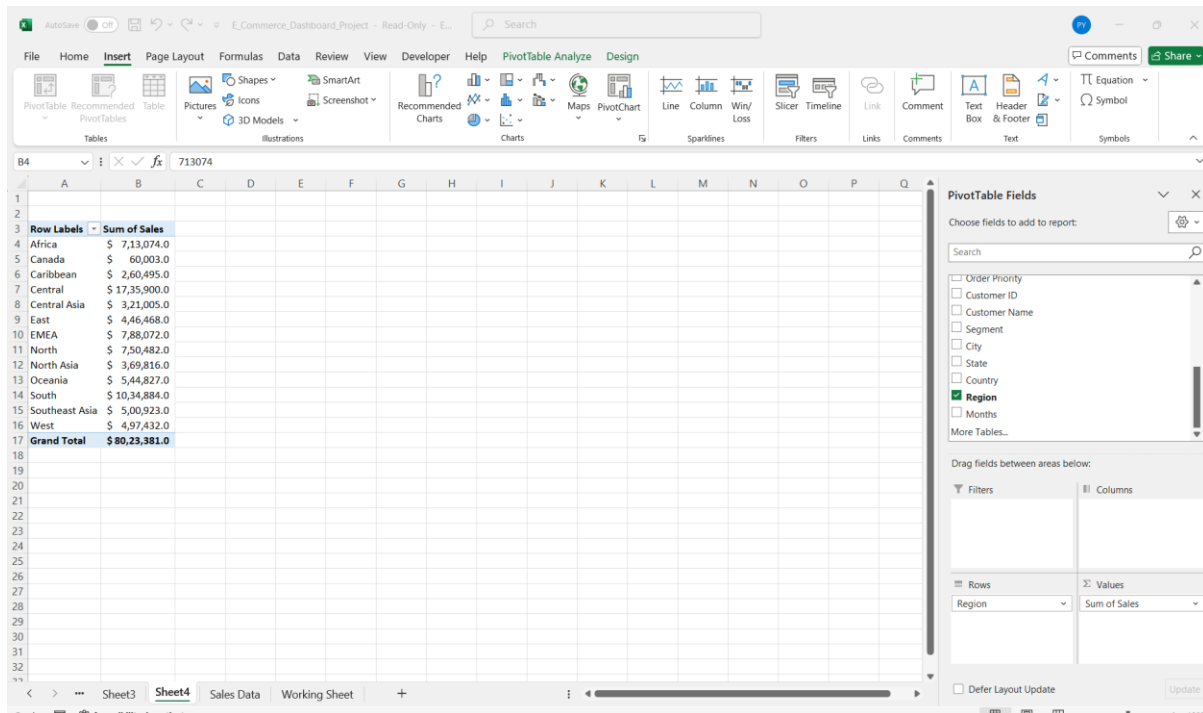


## Task:2

- Prepare the sales table region-wise in the working sheet

### Step:1

Select Pivot Table New Sheet, Choose, Region, Sales.



## Task:3

- Create User Control Combo box for Product Category

### Step:1

Select Product Category Column.

Click on Insert, Select Combo box option from Form Controls.

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	Order Date	Ship Date	Aging	Ship Mode	Product Category		Sales	Quantity	Discount	Profit	Shipping Cost	Order Priority	Customer ID	Customer Name	Segment	City
2	09-11-2015	17-11-2015	8	First Class	Auto & Accessories	Car Speakers	\$ 140.0	2	0.05	\$ 46.0	\$ 4.6	Medium	LS-001	Lane Daniels	Consumer	Brid
3	30-06-2015	02-07-2015	2	First Class	Auto & Accessories	Car Speakers	\$ 211.0	3	0.03	\$ 112.0	\$ 11.2	Medium	IZ-002	Alvarado Kriz	Home Office	Berl
4	05-12-2015	13-12-2015	8	First Class	Auto & Accessories	Car Speakers	\$ 117.0	5	0.01	\$ 31.2	\$ 3.1	Critical	EN-003	Moon Weien	Consumer	Pori
5	09-05-2015	16-05-2015	7	First Class	Auto & Accessories	Car & Bike Care	\$ 118.0	2	0.05	\$ 26.2	\$ 2.6	High	AN-004	Sanchez Bergman	Corporate	Kabi
6	09-07-2015	18-07-2015	9	First Class	Auto & Accessories	Tyre	\$ 250.0	1	0.04	\$ 160.0	\$ 16.0	Critical	ON-005	Rowe Jackson	Corporate	Tow
7	25-02-2015	05-03-2015	8	First Class	Auto & Accessories	Bike Tyres	\$ 72.0	3	0.04	\$ 24.0	\$ 2.4	Critical	TO-006	Carter Barreto	Corporate	Bytc
8	09-04-2015	10-04-2015	1	First Class	Auto & Accessories	Car Mat	\$ 54.0	1	0.05	\$ 54.0	\$ 5.4	High	OM-007	Mcconnell Tom	Consumer	Chic
9	30-03-2015	06-04-2015	7	First Class	Auto & Accessories	Car Seat Covers	\$ 114.0	5	0.02	\$ 22.6	\$ 2.3	Critical	AN-008	Dennis Holloman	Corporate	Suzf
10	09-02-2015	16-02-2015	7	First Class	Auto & Accessories	Car Pillow & Neck Rest	\$ 231.0	5	0.03	\$ 116.4	\$ 11.6	Critical	EN-009	Wall Olsen	Consumer	Juar
11	21-04-2015	01-05-2015	10	First Class	Auto & Accessories	Car Media Players	\$ 140.0	2	0.02	\$ 54.4	\$ 5.4	Critical	TT-010	Shepard Witt	Consumer	Soyi
12	16-11-2015	26-11-2015	10	First Class	Auto & Accessories	Car Speakers	\$ 211.0	4	0.01	\$ 122.6	\$ 12.3	Critical	ED-011	Johns Reed	Corporate	Taip
13	01-09-2015	02-09-2015	1	First Class	Auto & Accessories	Car Body Covers	\$ 117.0	4	0.04	\$ 18.3	\$ 1.8	High	ON-012	Doyle Knutson	Home Office	Los
14	09-07-2015	16-07-2015	7	First Class	Auto & Accessories	Car & Bike Care	\$ 118.0	1	0.02	\$ 35.6	\$ 3.6	Critical	WN-013	Butler Brown	Corporate	Sain
15	22-07-2015	27-07-2015	5	First Class	Auto & Accessories	Tyre	\$ 250.0	3	0.04	\$ 140.0	\$ 14.0	High	AN-014	Johnson Abelman	Corporate	Kan
16	12-10-2015	21-10-2015	9	First Class	Auto & Accessories	Bike Tyres	\$ 72.0	4	0.01	\$ 18.0	\$ 1.8	Medium	EY-015	Greene Decherney	Consumer	Brid
17	23-02-2015	05-03-2015	10	First Class	Auto & Accessories	Car Mat	\$ 54.0	2	0.01	\$ 27.0	\$ 2.7	Critical	RN-016	Bentley Zypren	Consumer	Berl
18	04-05-2015	08-05-2015	4	First Class	Auto & Accessories	Car Seat Covers	\$ 114.0	2	0.05	\$ 22.6	\$ 2.3	High	CK-017	Rivera Black	Consumer	Shoi
19	12-06-2015	19-06-2015	7	First Class	Auto & Accessories	Car Pillow & Neck Rest	\$ 231.0	5	0.05	\$ 93.3	\$ 9.3	High	RE-018	Wong Macintyre	Consumer	New
20	13-05-2015	20-05-2015	7	First Class	Auto & Accessories	Car Media Players	\$ 140.0	2	0.05	\$ 46.0	\$ 4.6	Critical	ON-019	Hendricks Wilson	Consumer	Beh
21	27-07-2015	02-08-2015	6	First Class	Auto & Accessories	Car Speakers	\$ 211.0	2	0.02	\$ 122.6	\$ 12.3	Critical	ED-020	Johns Reed	Corporate	Taip
22	09-12-2015	13-12-2015	4	First Class	Auto & Accessories	Car Body Covers	\$ 117.0	5	0.01	\$ 31.2	\$ 3.1	Critical	AM-021	Barr Sundaresam	Consumer	Bho
23	09-02-2015	16-02-2015	7	First Class	Auto & Accessories	Car & Bike Care	\$ 118.0	2	0.03	\$ 30.9	\$ 3.1	High	KE-022	Holt Glocke	Corporate	Seat
24	22-02-2015	26-07-2015	6	First Class	Auto & Accessories	Tyre	\$ 250.0	4	0.02	\$ 150.0	\$ 15.0	High	LL-023	Gaines O'Carroll	Consumer	Gerl
25	22-11-2015	24-11-2015	2	First Class	Auto & Accessories	Bike Tyres	\$ 72.0	4	0.02	\$ 18.0	\$ 1.8	Critical	CO-024	Copeland Lomonaco	Corporate	Cell
26	22-02-2015	02-03-2015	8	First Class	Auto & Accessories	Car Mat	\$ 54.0	1	0.05	\$ 54.0	\$ 5.4	High	NA-025	Vasquez Dona	Consumer	Sevi
27	06-04-2015	10-04-2015	4	First Class	Auto & Accessories	Car Seat Covers	\$ 114.0	4	0.02	\$ 24.9	\$ 2.5	Critical	LL-026	Freeman Castell	Corporate	Raip
28	27-07-2015	04-08-2015	8	First Class	Auto & Accessories	Car Pillow & Neck Rest	\$ 231.0	1	0.03	\$ 144.1	\$ 14.4	Critical	LE-027	Reid Engle	Home Office	Khair
29	29-09-2015	05-10-2015	6	First Class	Auto & Accessories	Car Media Players	\$ 140.0	1	0.03	\$ 55.8	\$ 5.6	High	NG-028	Harris Armstrong	Corporate	Jina
30	11-04-2015	18-04-2015	7	First Class	Auto & Accessories	Car Speakers	\$ 211.0	3	0.03	\$ 112.0	\$ 11.2	Medium	ED-029	Everett Sweed	Consumer	Chin
31	23-01-2015	27-01-2015	4	First Class	Auto & Accessories	Car Body Covers	\$ 117.0	1	0.02	\$ 34.7	\$ 3.5	High	AS-030	Poole Lucas	Corporate	Pale
32	31-03-2015	09-04-2015	9	First Class	Auto & Accessories	Car & Bike Care	\$ 118.0	3	0.03	\$ 27.4	\$ 2.7	Critical	WN-031	Gonzales Brown	Consumer	Duis
33	24-11-2015	26-11-2015	5	First Class	Auto & Accessories	Tyre	\$ 250.0	4	0.02	\$ 150.0	\$ 15.0	High	LL-032	Gaines O'Carroll	Consumer	Gerl

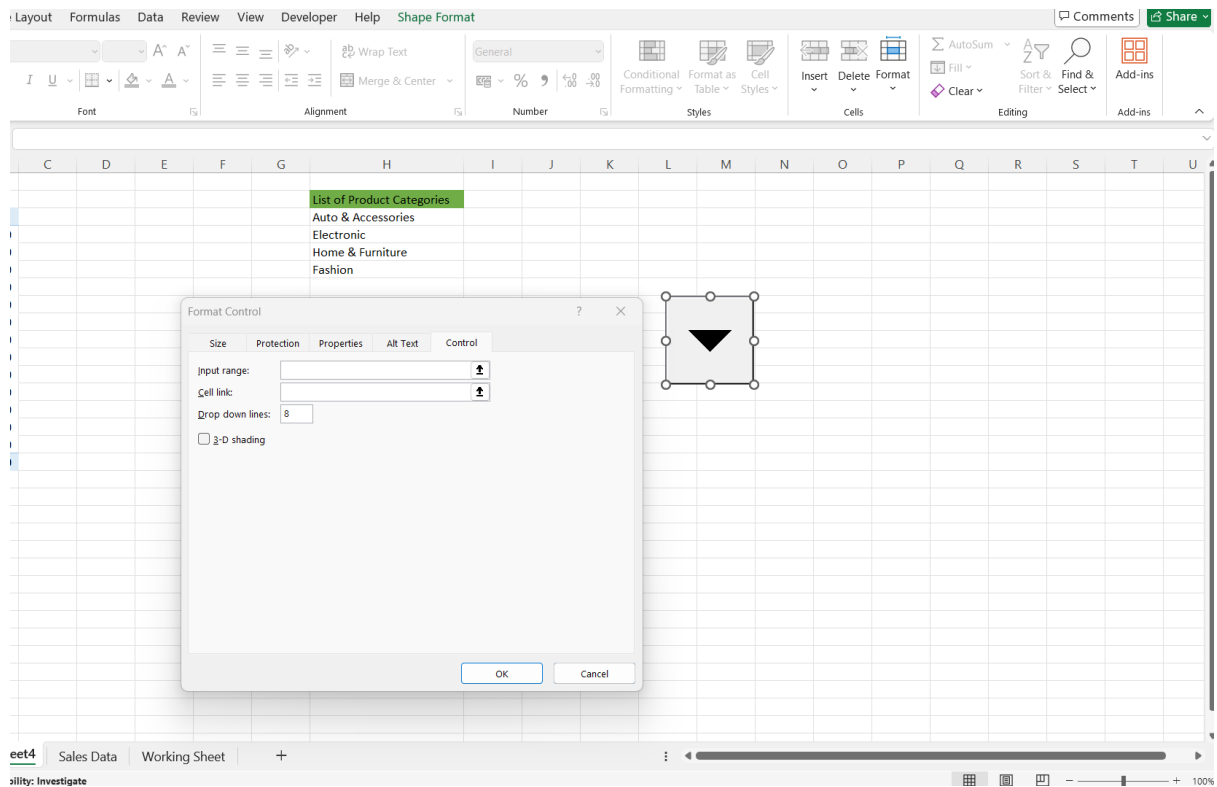
## Step:2

List down the product categories

Click on Sheet, drop down option appears.

Right Click on it, Select format control option.

Put 1 in G column left side to Auto & Accessories.

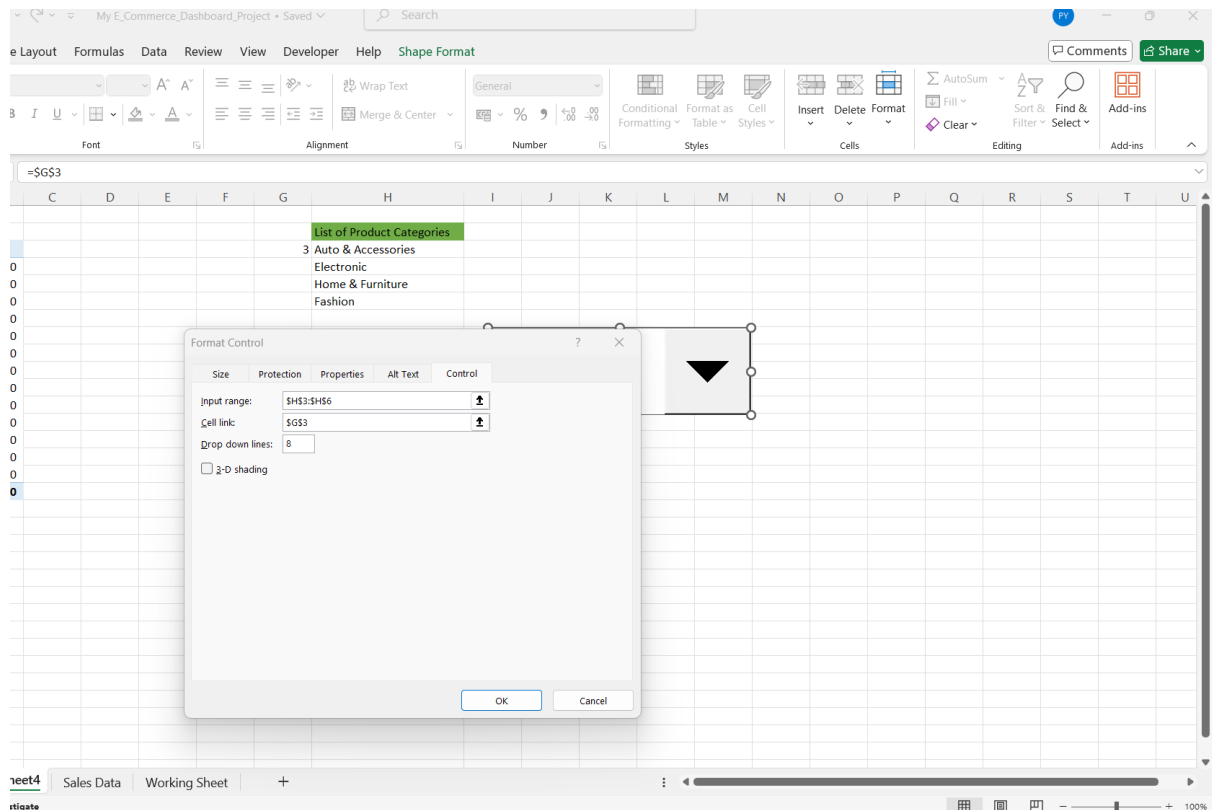


### Step:3

In the Format Control Input range: Select product categories

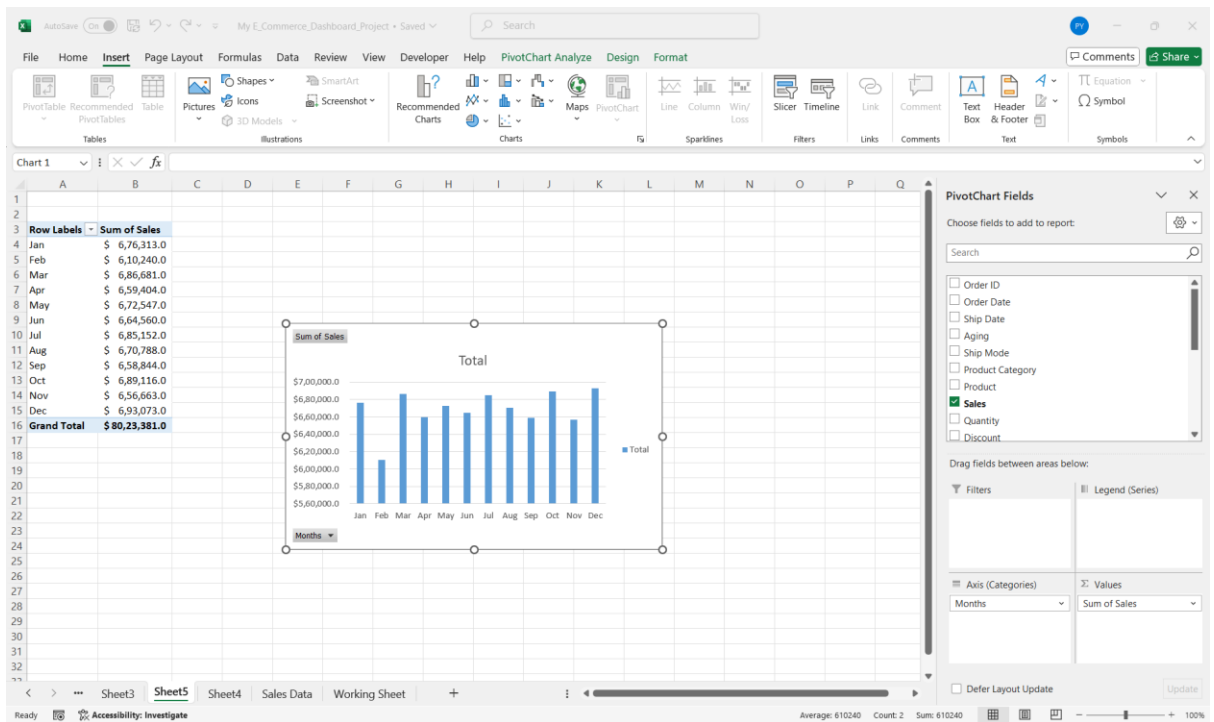
And cell link selects SN. Option:1 from sheet.

Click on OK.



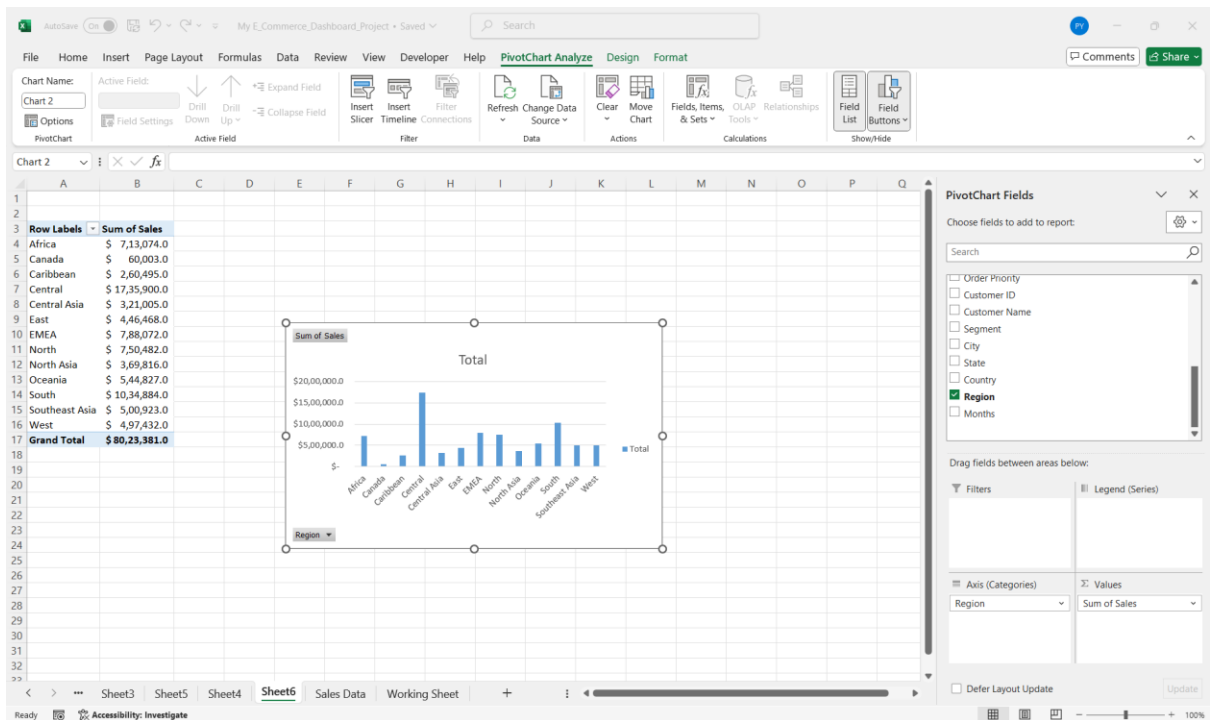
## Task:4

- Create a Column Chart of the month-wise table and region-wise table
- **Step1:** Create Pivot Table, Choose Region, Sales.  
Click on insert, Select Recommended charts, Choose clustered column option.

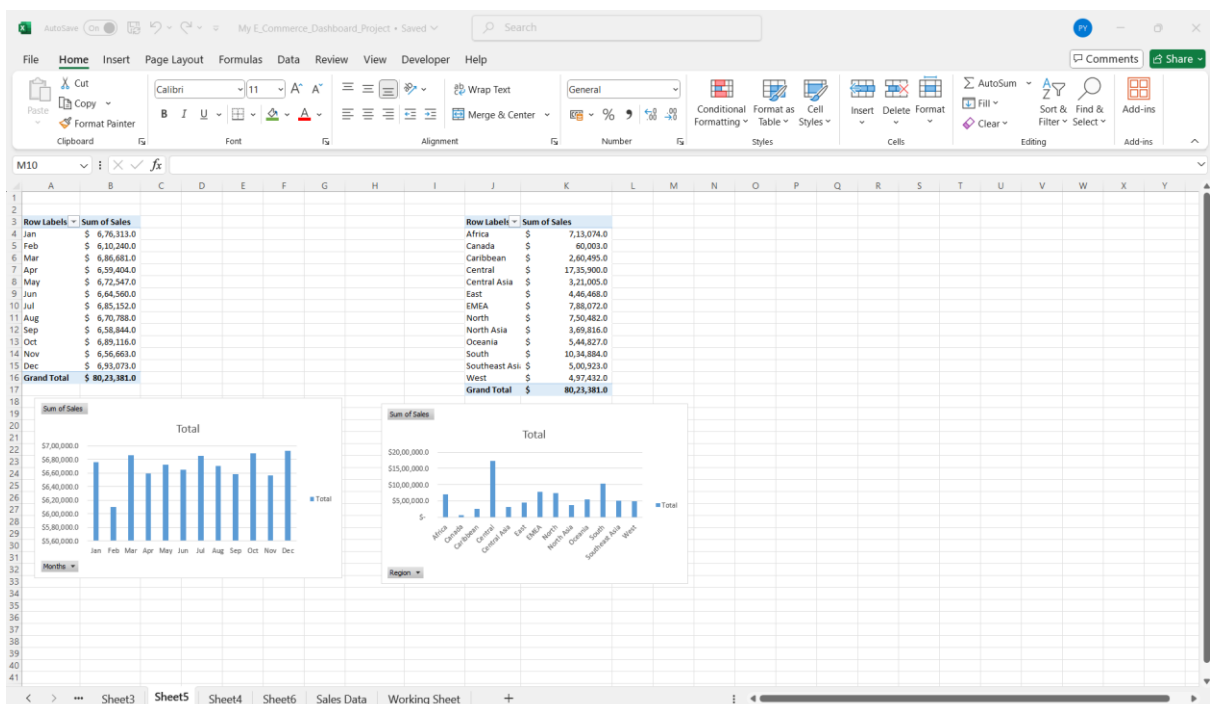


- **Step 2:** Create Pivot Table, Choose Months, Sales.  
Click on insert, Select Recommended charts, Choose clustered column option.





We can do it in a single sheet as mentioned below also.



## Task:5

- Link the table with a combo box

## Step:1

- Create Pivot Table, Select Months, Region, Sales.
- Enter text Regions, give S.No.1
- Enter the text Months in table as mentioned below.

The screenshot shows an Excel spreadsheet with a sales data table and a pivot table. The sales data table is located in the range A3:O17, with columns for Region, Sales, and Grand Total. The pivot table is located in the range A24:O35, with a pivot table field list on the right side. The pivot table is set to show the sum of sales by region and month.

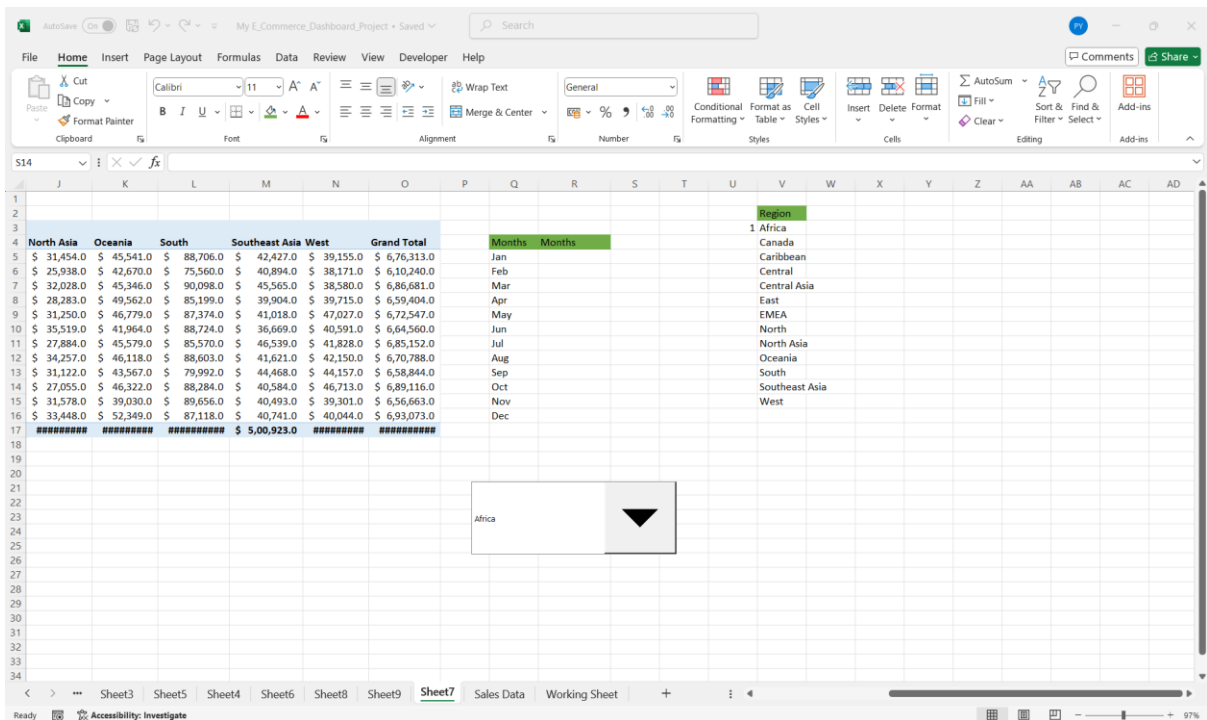
Region	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Grand Total
Africa	\$ 6,76,313.0	\$ 6,10,240.0	\$ 6,86,681.0	\$ 6,59,404.0	\$ 6,72,547.0	\$ 6,64,560.0	\$ 6,85,152.0	\$ 6,70,788.0	\$ 6,58,844.0	\$ 6,89,116.0	\$ 6,56,663.0	\$ 6,93,073.0	\$ 6,76,313.0
Canada	\$ 5,815.0	\$ 4,163.0	\$ 19,099.0	\$ 24,379.0	\$ 21,255.0	\$ 22,183.0	\$ 22,944.0	\$ 4,783.0	\$ 5,005.0	\$ 4,459.0	\$ 5,437.0	\$ 4,816.0	\$ 60,003.0
Caribbean	\$ 20,222.0	\$ 1,34,409.0	\$ 1,51,474.0	\$ 1,44,090.0	\$ 1,42,961.0	\$ 1,43,518.0	\$ 1,47,551.0	\$ 1,44,515.0	\$ 1,683.0	\$ 1,53,256.0	\$ 1,42,164.0	\$ 1,43,571.0	\$ 2,00,000.0
Central	\$ 1,47,311.0	\$ 23,172.0	\$ 27,812.0	\$ 25,662.0	\$ 27,023.0	\$ 24,341.0	\$ 24,730.0	\$ 39,387.0	\$ 38,092.0	\$ 35,540.0	\$ 34,238.0	\$ 29,120.0	\$ 3,21,000.0
Central Asia	\$ 26,362.0	\$ 32,546.0	\$ 39,448.0	\$ 36,717.0	\$ 37,086.0	\$ 34,656.0	\$ 39,387.0	\$ 39,387.0	\$ 38,092.0	\$ 35,540.0	\$ 34,238.0	\$ 29,120.0	\$ 3,21,000.0
East	\$ 38,117.0	\$ 58,940.0	\$ 63,322.0	\$ 60,226.0	\$ 68,955.0	\$ 72,820.0	\$ 70,381.0	\$ 61,332.0	\$ 61,089.0	\$ 63,756.0	\$ 60,708.0	\$ 62,087.0	\$ 7,88,072.0
EMEA	\$ 65,124.0	\$ 31,454.0	\$ 32,028.0	\$ 28,283.0	\$ 31,250.0	\$ 35,519.0	\$ 35,519.0	\$ 34,257.0	\$ 31,122.0	\$ 27,055.0	\$ 31,578.0	\$ 33,448.0	\$ 4,69,816.0
North	\$ 63,615.0	\$ 45,541.0	\$ 42,670.0	\$ 49,362.0	\$ 46,779.0	\$ 41,964.0	\$ 45,579.0	\$ 46,118.0	\$ 43,567.0	\$ 46,322.0	\$ 49,654.0	\$ 47,118.0	\$ 5,44,827.0
North Asia	\$ 31,454.0	\$ 25,938.0	\$ 32,028.0	\$ 28,283.0	\$ 31,250.0	\$ 35,519.0	\$ 35,519.0	\$ 34,257.0	\$ 31,122.0	\$ 27,055.0	\$ 31,578.0	\$ 33,448.0	\$ 4,69,816.0
Oceania	\$ 45,541.0	\$ 42,670.0	\$ 49,362.0	\$ 46,779.0	\$ 46,779.0	\$ 41,964.0	\$ 45,579.0	\$ 46,118.0	\$ 43,567.0	\$ 46,322.0	\$ 49,654.0	\$ 47,118.0	\$ 5,44,827.0
South	\$ 88,706.0	\$ 75,560.0	\$ 90,098.0	\$ 85,199.0	\$ 87,374.0	\$ 88,724.0	\$ 85,570.0	\$ 88,603.0	\$ 79,992.0	\$ 88,284.0	\$ 89,654.0	\$ 87,118.0	\$ 10,34,884.0
Southeast Asia	\$ 42,427.0	\$ 40,894.0	\$ 45,565.0	\$ 39,904.0	\$ 41,018.0	\$ 36,669.0	\$ 46,339.0	\$ 41,621.0	\$ 44,668.0	\$ 40,584.0	\$ 40,893.0	\$ 40,741.0	\$ 5,00,923.0
West	\$ 39,155.0	\$ 38,171.0	\$ 38,580.0	\$ 39,715.0	\$ 47,027.0	\$ 40,591.0	\$ 41,828.0	\$ 42,150.0	\$ 44,157.0	\$ 46,713.0	\$ 39,301.0	\$ 40,044.0	\$ 4,97,432.0
Grand Total	\$ 7,13,074.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 80,23,381.0

The pivot table is located in the range A24:O35, with a pivot table field list on the right side. The pivot table is set to show the sum of sales by region and month.

Region	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Grand Total
Africa	\$ 6,76,313.0	\$ 6,10,240.0	\$ 6,86,681.0	\$ 6,59,404.0	\$ 6,72,547.0	\$ 6,64,560.0	\$ 6,85,152.0	\$ 6,70,788.0	\$ 6,58,844.0	\$ 6,89,116.0	\$ 6,56,663.0	\$ 6,93,073.0	\$ 6,76,313.0
Canada	\$ 5,815.0	\$ 4,163.0	\$ 19,099.0	\$ 24,379.0	\$ 21,255.0	\$ 22,183.0	\$ 22,944.0	\$ 4,783.0	\$ 5,005.0	\$ 4,459.0	\$ 5,437.0	\$ 4,816.0	\$ 60,003.0
Caribbean	\$ 20,222.0	\$ 1,34,409.0	\$ 1,51,474.0	\$ 1,44,090.0	\$ 1,42,961.0	\$ 1,43,518.0	\$ 1,47,551.0	\$ 1,44,515.0	\$ 1,683.0	\$ 1,53,256.0	\$ 1,42,164.0	\$ 1,43,571.0	\$ 2,00,000.0
Central	\$ 1,47,311.0	\$ 23,172.0	\$ 27,812.0	\$ 25,662.0	\$ 27,023.0	\$ 24,341.0	\$ 24,730.0	\$ 39,387.0	\$ 38,092.0	\$ 35,540.0	\$ 34,238.0	\$ 29,120.0	\$ 3,21,000.0
Central Asia	\$ 26,362.0	\$ 32,546.0	\$ 39,448.0	\$ 36,717.0	\$ 37,086.0	\$ 34,656.0	\$ 39,387.0	\$ 39,387.0	\$ 38,092.0	\$ 35,540.0	\$ 34,238.0	\$ 29,120.0	\$ 3,21,000.0
East	\$ 38,117.0	\$ 58,940.0	\$ 63,322.0	\$ 60,226.0	\$ 68,955.0	\$ 72,820.0	\$ 70,381.0	\$ 61,332.0	\$ 61,089.0	\$ 63,756.0	\$ 60,708.0	\$ 62,087.0	\$ 7,88,072.0
EMEA	\$ 65,124.0	\$ 31,454.0	\$ 32,028.0	\$ 28,283.0	\$ 31,250.0	\$ 35,519.0	\$ 35,519.0	\$ 34,257.0	\$ 31,122.0	\$ 27,055.0	\$ 31,578.0	\$ 33,448.0	\$ 4,69,816.0
North	\$ 63,615.0	\$ 45,541.0	\$ 42,670.0	\$ 49,362.0	\$ 46,779.0	\$ 41,964.0	\$ 45,579.0	\$ 46,118.0	\$ 43,567.0	\$ 46,322.0	\$ 49,654.0	\$ 47,118.0	\$ 5,44,827.0
North Asia	\$ 31,454.0	\$ 25,938.0	\$ 32,028.0	\$ 28,283.0	\$ 31,250.0	\$ 35,519.0	\$ 35,519.0	\$ 34,257.0	\$ 31,122.0	\$ 27,055.0	\$ 31,578.0	\$ 33,448.0	\$ 4,69,816.0
Oceania	\$ 45,541.0	\$ 42,670.0	\$ 49,362.0	\$ 46,779.0	\$ 46,779.0	\$ 41,964.0	\$ 45,579.0	\$ 46,118.0	\$ 43,567.0	\$ 46,322.0	\$ 49,654.0	\$ 47,118.0	\$ 5,44,827.0
South	\$ 88,706.0	\$ 75,560.0	\$ 90,098.0	\$ 85,199.0	\$ 87,374.0	\$ 88,724.0	\$ 85,570.0	\$ 88,603.0	\$ 79,992.0	\$ 88,284.0	\$ 89,654.0	\$ 87,118.0	\$ 10,34,884.0
Southeast Asia	\$ 42,427.0	\$ 40,894.0	\$ 45,565.0	\$ 39,904.0	\$ 41,018.0	\$ 36,669.0	\$ 46,339.0	\$ 41,621.0	\$ 44,668.0	\$ 40,584.0	\$ 40,893.0	\$ 40,741.0	\$ 5,00,923.0
West	\$ 39,155.0	\$ 38,171.0	\$ 38,580.0	\$ 39,715.0	\$ 47,027.0	\$ 40,591.0	\$ 41,828.0	\$ 42,150.0	\$ 44,157.0	\$ 46,713.0	\$ 39,301.0	\$ 40,044.0	\$ 4,97,432.0
Grand Total	\$ 7,13,074.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 6,00,003.0	\$ 80,23,381.0

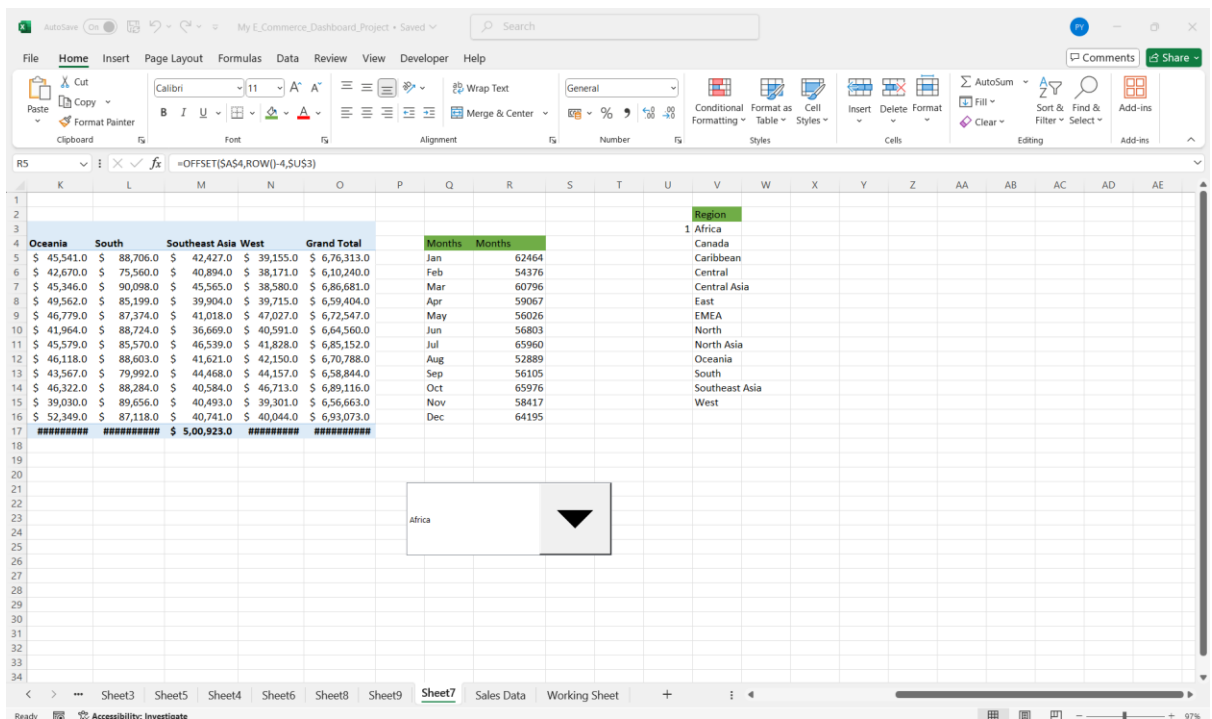
## Step:2

- Select Region column, Select Developer, click on insert, Select Combo box from Form Control
- Right click on drop down, select form control, add region in input, number to cell as mentioned below.



### Step 3:

- Apply formula =OFFSET(A4,ROW()-4,U3)  
And the apply \$ with Fn&F4 for A4 & U3



- **Task:6**  
**Create a dashboard**
- **Steps:**  
Create Pivot table for product categories, regions with sum of sales. Prepare its chart.
- Copy pastes the charts of regions with sales, months with sales charts which is prepared earlier already.
- Now create Slicers for all the 3 charts by clicking on insert slicer option.
- Now do report connections for the 3 slicers by right click on slicer, select report connection option. Select pivot tables which need to connect interactions
- Dashboard is prepared as below.

