Symbiosis University of Applied Sciences

Front Page of Answer Book

Enrollment Number: | 2 | 0 | 1 | 9 | B | T | C | S | 0 | 8 | 8 |

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Name of Program: B. TECH   Year/Semester: **2ND YEAR/3RD SEMESTER**

Name of Paper: Management Information System Paper Code: **BTCS03CCB1**

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Total No. of Pages.:12

Instructions for Examinees

1. Fill up all entries required in this page.
2. Merge this doc page with your scanned answer sheets as a first page in a single PDF file.
3. Write your answers on A4 Ruled Sheets/Register Pages.
4. Write End after the last attempted question.
5. Write the page number on every page and mentioned Total No. of Pages on front Page.
6. **If the content in the Answer Book of two students or more has found similar, in that case all copied answer will stand cancelled.**

PRACTICAL_ACTIVITY-02

1. TITLE : Data Visualization in MS-Excel

2. AIM/OBJECTIVE: The objective of this practical activity is to:-

ⓐ : Why we Humans need to visualize data?

ⓑ : What do we mean by Data visualization?

ⓒ : Use case of Data Visualization in Excel.

ⓓ : Implementing different kinds of charts in MS-Excel.

3. METHODOLOGY : As we have various kind of charts which we use for visualizing our Data in MS-Excel

As we have taken one example related to "Display the Sold quantities against the sales per year".

↳ Step① : Open MS-Excel software. Create one ~~data database~~ workbook. Then import dataset from Internet. (Site: https://www.guru99.com)

↳ Step② : Enter the data from data Source {In our case above website}

↳ Step③ : First select the datatable which we want to represent in graph.

↳ Step④ : Then click on INSERT tab from the ribbon Box.

↳ Step⑤ : Under the Columns click on the column chart drop down button.

↳ Step⑥ : Then select the chart type we want.

↳ There are various charts ⟶ Pie Chart

Combo Chart

Line Chart

Column Chart

Box Chart

Bubbles
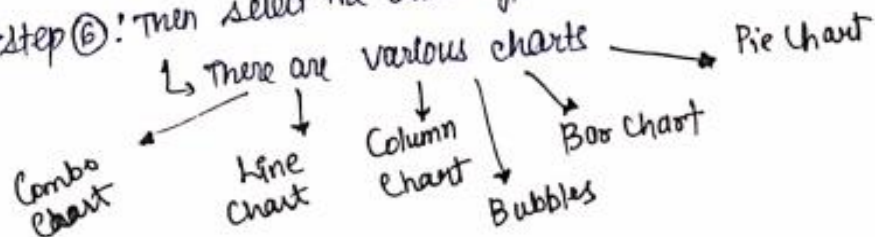
4. BRIEF DESCRIPTION: (Humans perceive vision)

→ we can very easily visualize rather than doing computation like computers. Hence, we (Humans) are more comfortable with the visuals. Now Here, visualizing the data → provides a very deep insight about dataset.)

These combined sets of data in visuals is 'who ae

CHART.

→ A chart is a visual representative of data in both columns and rows. Charts are usually used to analyse the trends & patterns in data sets. Using charts, we can easily tell which year Had the most sales and which year had the least.

→ Importance of charts : → It is easier to analyse trends & patterns using charts in MS Excel data graphically.
  ↳ It allows us to visualize the data graphically.
  ↳ Easy to interpret compared to data in cells.

→ Chart Type:
  WHEN should we use it?
  ↳ (Pie Chart) → When we want to quantify items & show them as percentages.

  ↳ (Bar Chart) → When we want to compare values across a few categories. The values run Horizontally.

  ↳ (Column Chart) → When we want to compare values across a few categories. The values run vertically.

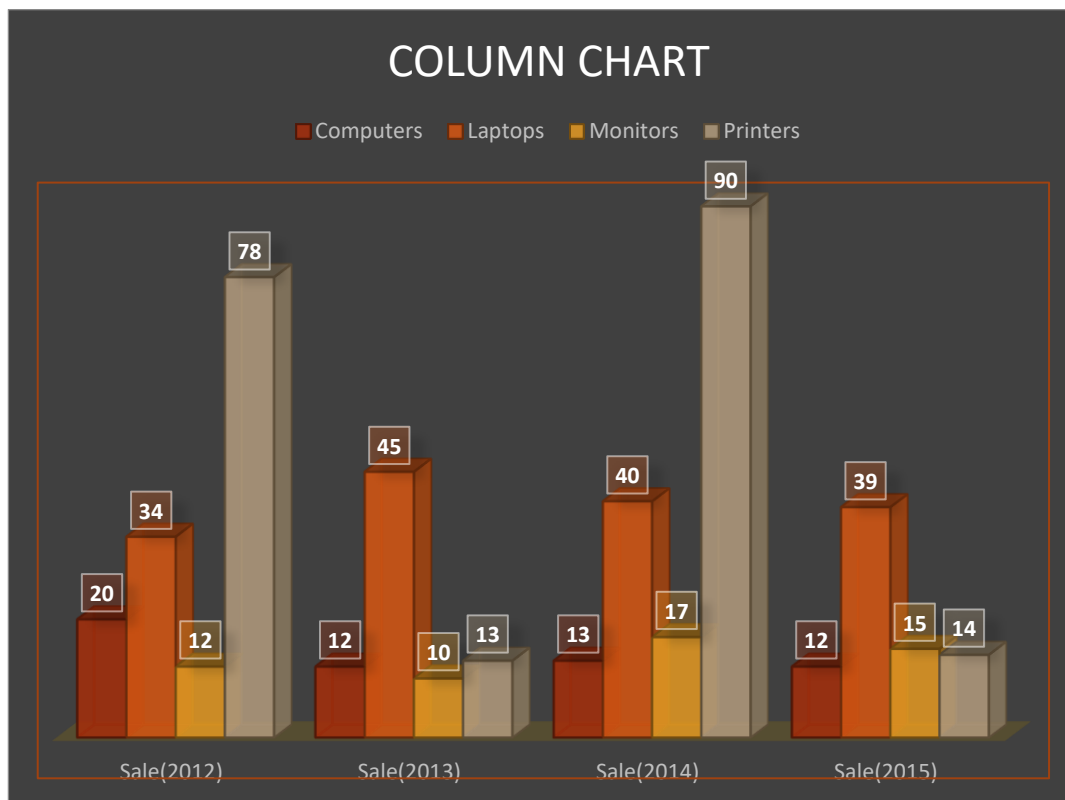 ↳ (Line chart) → when we want to visualize trends over a period of time i.e. months, days, years etc.

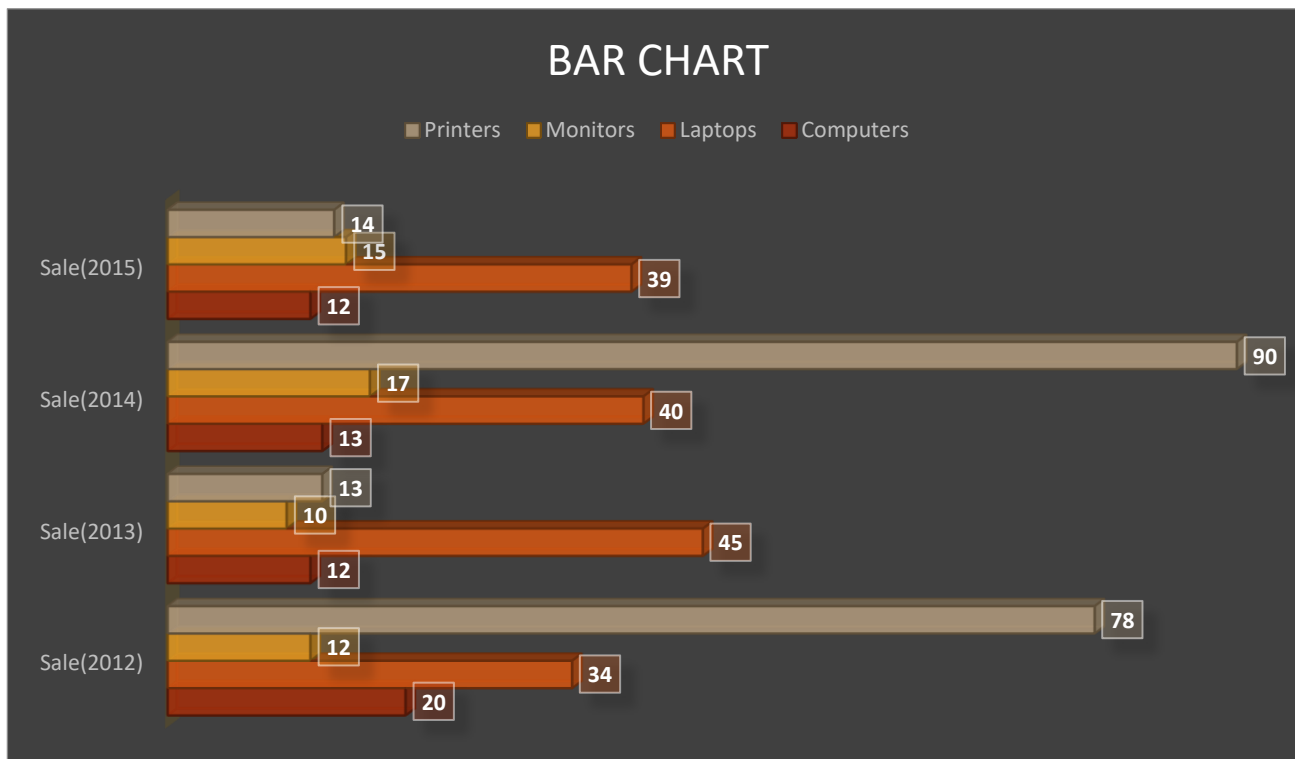 ↳ (Combo Chart) → When we want to highlight different types of information.

Item	Sale(2012)	Sale(2013)	Sale(2014)	Sale(2015)
Computers	20	12	13	12
Laptops	34	45	40	39
Monitors	12	10	17	15
Printers	78	13	90	14

BAR CHART

Printers ■ Monitors ■ Laptops ■ Computers

Sale(2015)	Printers: 14	Monitors: 15	Laptops: 39	Computers: 12
Sale(2014)	Printers: 90	Monitors: 17	Laptops: 40	Computers: 13
Sale(2013)	Printers: 13	Monitors: 10	Laptops: 45	Computers: 12
Sale(2012)	Printers: 78	Monitors: 12	Laptops: 34	Computers: 20

BAR CHART:

LINE CHART

Computers ■ Laptops ■ Monitors ■ Printers
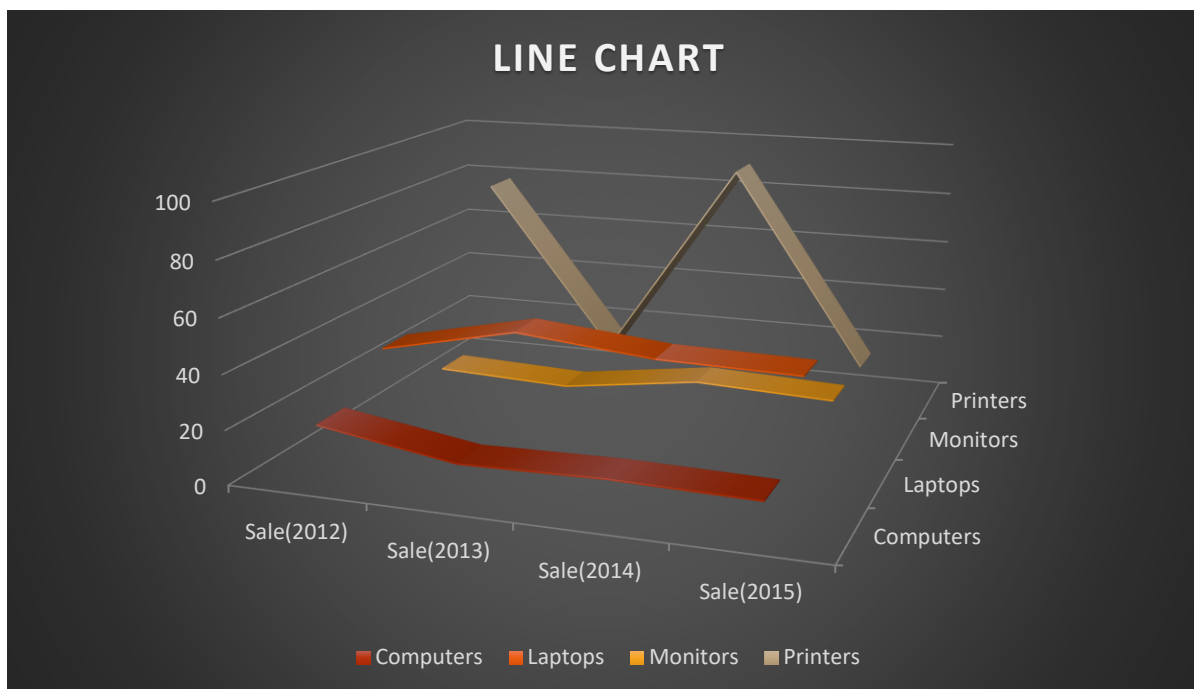
SCATTER CHART

BUBBLES

Sale(2012)

Computers   Laptops   Monitors   Printers
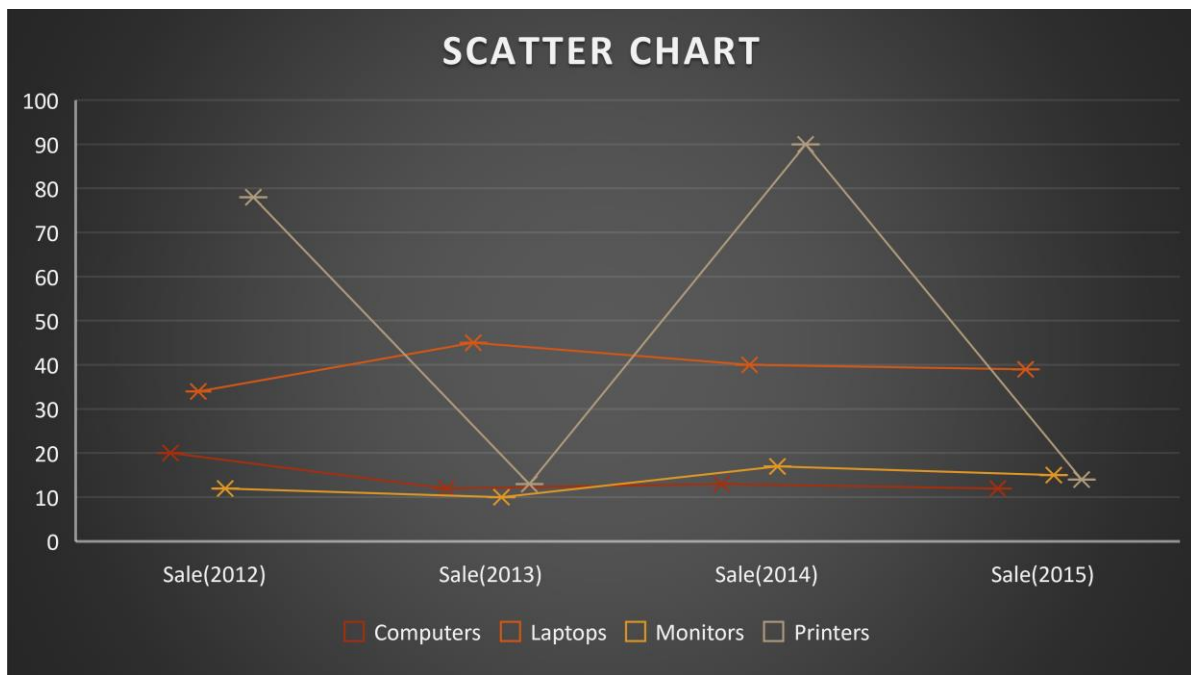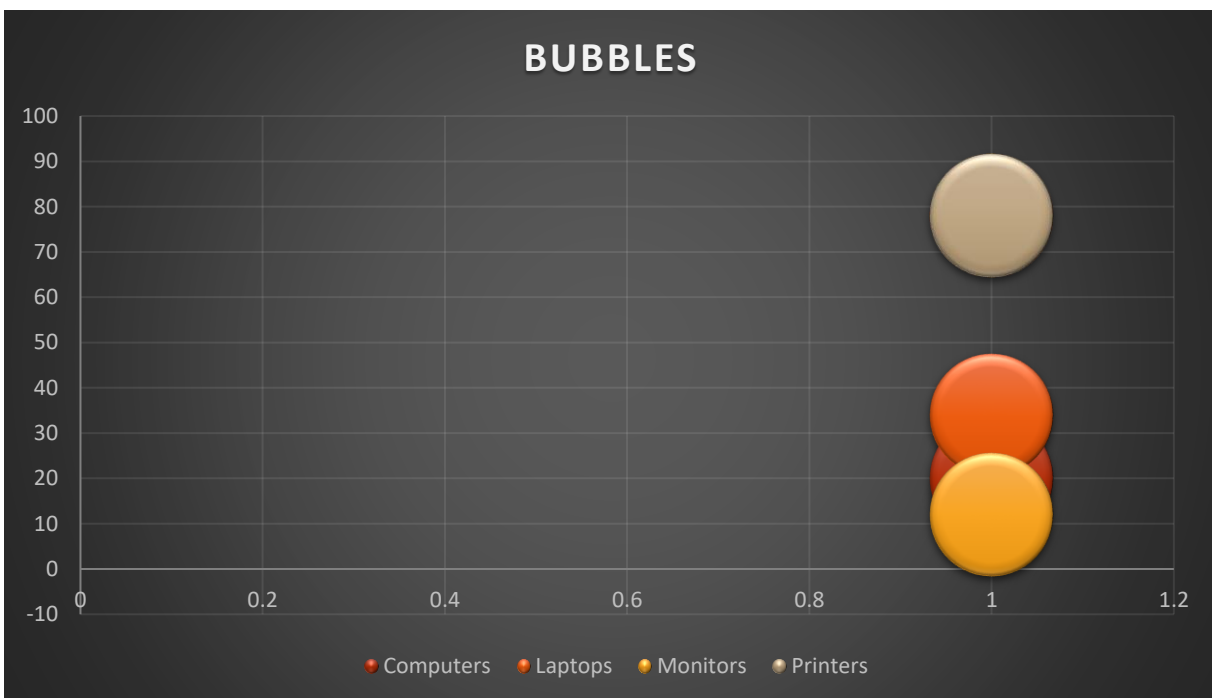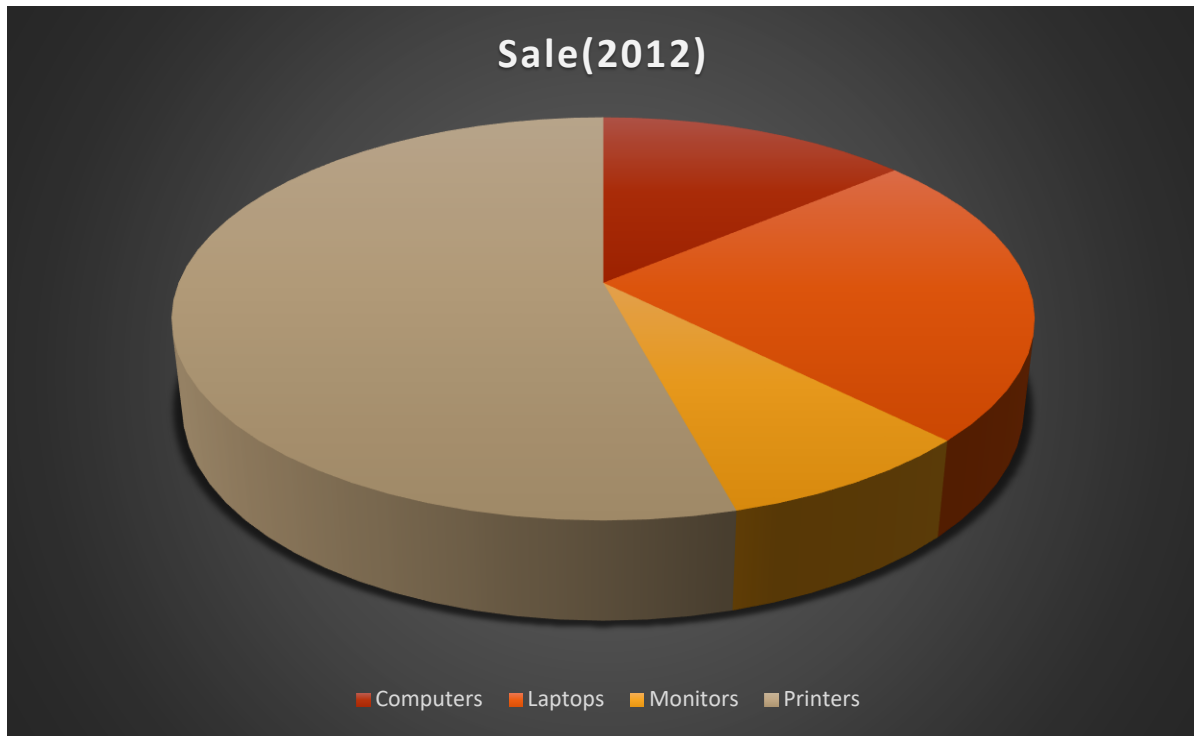
SKILL ACTIVITY

Title: Creating Pivot Chart in MS-Excel

1. What is the purpose of this Activity? (Explain in 3-4 lines)

The purpose of this activity is to create a pivot table in MS-Excel. A pivot table allows you to extract the significance from a large, detailed data set.

Following use cases can be solved by Pivot Table:

- a. Sort information by category easier.
- b. Compare information in seconds.
- c. Time saver
- d. Interactive Data Analysis

2. Steps performed in this Activity. (Explain in 5-6 lines)

Steps performed to Insert a Pivot Table:-

→ step①: Click any single cell inside the dataset.

→ step②: On the Insert Tab, in the Tables group, click PivotTable.

→ step③: Excel automatically selects the data for you. The default location for a New pivot table is New Worksheet. Click OK. Then to get the total amount exported of each product, drag the following fields to the different areas:

- a. Product field to the Rows area.
- b. Amount field to the Values area.
- c. Country field to the Filters area.

|| 2 Dimensional Pivot Table }

→ step⑤: If you drag a field to the Rows area & Columns area you can create a two-dimensional pivot table. First, Insert a pivot table. Next, to get the total amount exported to each country, of each product drag the following fields to the different area.

1. Country field to the Rows area.
2. Product field to the Columns area.
3. Amount field to the Values area.
4. Category field to the Filter area.

3. What resources/ equipment/ tools did you use for this activity?
   a. Microsoft Excel (version 2105)

   b. Laptop / Computer

   c. Realworld Dataset from Internet,

4. What skills did you acquire?
   a. We get to know How Pivot Table works (Behind the scene calls COUNTFS (), SUMIFS () & SUMPRODUCT().
   b. How to create 2D Table pivot chart?
   c. Realworld use cases of pivot chart in MIS data analysis

5. Time taken to complete this activity? __02:00__ (HOURS)

Signature of Student

Details of the Activity:

	A	B	C	D	E	F	G	H
1	Order ID	Product	Category	Amount	Date	Country		
2	1	Carrots	Vegetables	$4,270	1/6/2016	United States		
3	2	Broccoli	Vegetables	$8,239	1/7/2016	United Kingdom		
4	3	Banana	Fruit	$617	1/8/2016	United States		
5	4	Banana	Fruit	$8,384	1/10/2016	Canada		
6	5	Beans	Vegetables	$2,626	1/10/2016	Germany		
7	6	Orange	Fruit	$3,610	1/11/2016	United States		
8	7	Broccoli	Vegetables	$9,062	1/11/2016	Australia		
9	8	Banana	Fruit	$6,906	1/16/2016	New Zealand		
10	9	Apple	Fruit	$2,417	1/16/2016	France		

PivotTable   Recommended   Table
             PivotTables
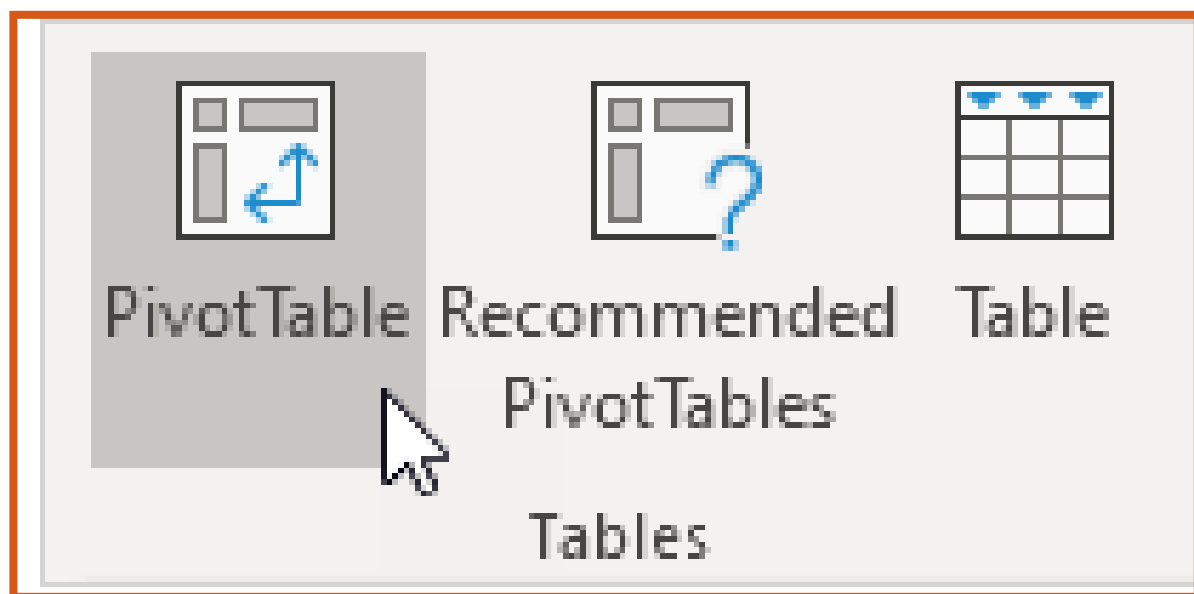
Tables

INSERT A PIVOT TABLE:
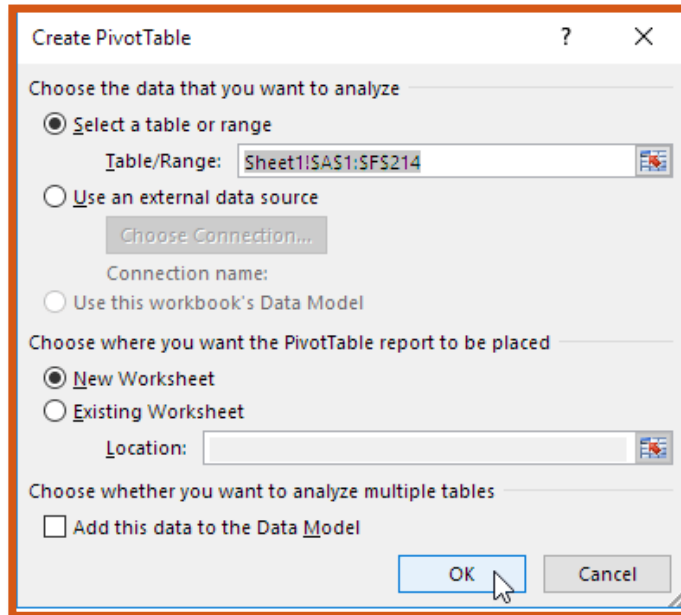
SELECTING FIELDS:
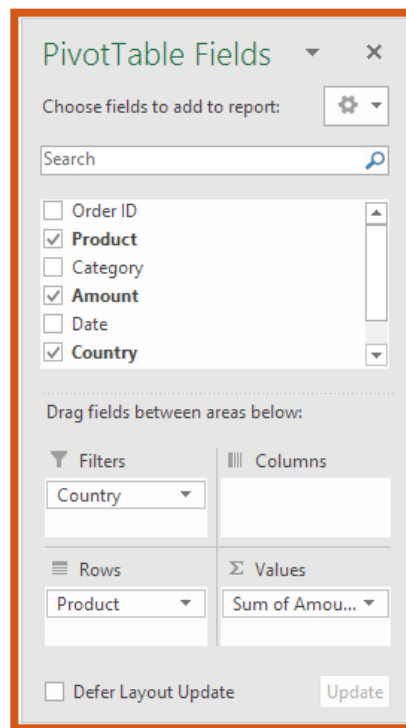
PIVOT TABLE:

	A	B	C
1	Country	(All) ▼	
2			
3	Row Labels ▼	Sum of Amount	
4	Apple	191257	
5	Banana	340295	
6	Beans	57281	
7	Broccoli	142439	
8	Carrots	136945	
9	Mango	57079	
10	Orange	104438	
11	**Grand Total**	**1029734**	
12			

CATEGORISING FIELDS TO FILTER AREA FOR 2D CHART:

PivotTable Fields ▼ ✕

Choose fields to add to report: ⚙ ▼

Search 🔎

- ☐ Order ID
- ☑ **Product**
- ☑ **Category**
- ☑ **Amount**
- ☐ Date
- ☑ **Country**

Drag fields between areas below:

▼ Filters | ▥ Columns
Category ▼ | Product ▼

☰ Rows | Σ Values
Country ▼ | Sum of Amou... ▼

☐ Defer Layout Update | Update

2-DIMENSIONAL PIVOT TABLE:

	A	B	C	D	E	F	G	H	I	J
1	Category	(All) ▼								
2										
3	Sum of Amount	Column ▼								
4	Row Labels ▼	Apple	Banana	Beans	Broccoli	Carrots	Mango	Orange	Grand Total	
5	Australia	20634	52721	14433	17953	8106	9186	8680	131713	
6	Canada	24867	33775		12407		3767	19929	94745	
7	France	80193	36094	680	5341	9104	7388	2256	141056	
8	Germany	9082	39686	29905	37197	21636	8775	8887	155168	
9	New Zealand	10332	40050		4390			12010	66782	
10	United Kingdom	17534	42908	5100	38436	41815	5600	21744	173137	
11	United States	28615	95061	7163	26715	56284	22363	30932	267133	
12	Grand Total	191257	340295	57281	142439	136945	57079	104438	1029734	
13										

PIVOT CHART WITH DYNAMIC X FIELD: