

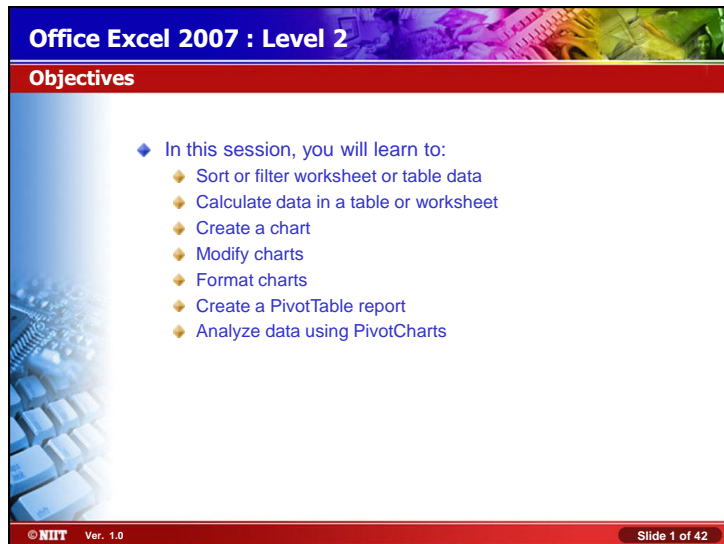


# Instructor Inputs

Session 3



Slide 1



The slide features a blue header with the text "Office Excel 2007 : Level 2". Below the header is a red bar with the word "Objectives" in white. The main content area has a light blue background with a keyboard graphic on the left. It contains a list of objectives, each preceded by a blue diamond icon. The footer is a red bar with "© NIIT Ver. 1.0" on the left and "Slide 1 of 42" on the right.

**Office Excel 2007 : Level 2**

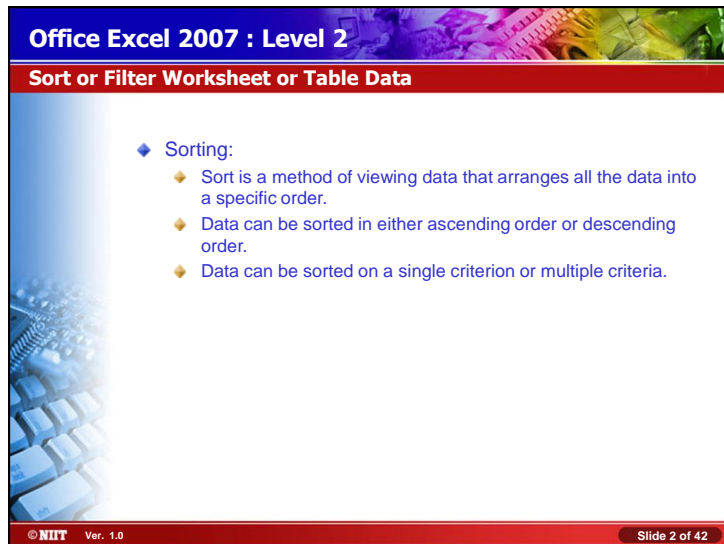
**Objectives**

- ◆ In this session, you will learn to:
  - ◆ Sort or filter worksheet or table data
  - ◆ Calculate data in a table or worksheet
  - ◆ Create a chart
  - ◆ Modify charts
  - ◆ Format charts
  - ◆ Create a PivotTable report
  - ◆ Analyze data using PivotCharts

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Discuss the session objectives with the students.

Slide 2



The slide features a blue header with the text "Office Excel 2007 : Level 2". Below the header is a red bar with the text "Sort or Filter Worksheet or Table Data" in white. The main content area has a light blue background with a keyboard graphic on the left. It contains a list of points about sorting, each preceded by a blue diamond icon. The footer is a red bar with "© NIIT Ver. 1.0" on the left and "Slide 2 of 42" on the right.

**Office Excel 2007 : Level 2**

**Sort or Filter Worksheet or Table Data**

- ◆ **Sorting:**
  - ◆ Sort is a method of viewing data that arranges all the data into a specific order.
  - ◆ Data can be sorted in either ascending order or descending order.
  - ◆ Data can be sorted on a single criterion or multiple criteria.

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Use the slide to explain how a sort method helps to manipulate the table data. When data is sort, it is possible to create different views of the same data without altering its original format.

Slide 3

**Office Excel 2007 : Level 2**

**Sort or Filter Worksheet or Table Data (Contd.)**

◆ The following figures show the single-level sort in ascending order.

**Unsorted List**

	A	B
1	Bill	Due Date
2	Car insurance	4/21
3	Student loan	4/5
4	Gas	4/11
5	Water	4/12
6	Car loan	4/15
7	Cable	4/15
8	Electric	4/20
9	Credit card	4/29
10	Phone	4/30
11	Mortgage	4/3

**Ascending Numerical Sort**

	A	B
1	Bill	Due Date
2	Mortgage	4/3
3	Student loan	4/5
4	Gas	4/11
5	Water	4/12
6	Car loan	4/15
7	Cable	4/15
8	Electric	4/20
9	Car insurance	4/21
10	Credit card	4/29
11	Phone	4/30

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Use the figures given in the slide above to explain the sort method. The sort method is applied to the Due Date column of the unsorted list, shown in the slide.

Slide 4

**Office Excel 2007 : Level 2**

**Sort or Filter Worksheet or Table Data (Contd.)**

◆ The following figure shows an unsorted list.

**Unsorted List**

Vendor	Invoice	Due Date	Amount
Arnie & Daughters Plumbing	3031	10/4	123.45
Exteriors by Tasha	3026	8/9	452.1
Canalside Nursery	3021	2/25	239
Canalside Nursery	3034	12/4	893.45
Weeping Willow Landscape	3029	3/6	893.2
Yamaguchi Lawn Care	3027	9/21	390.53
Landscapes & More	3028	4/16	349.76
Canalside Nursery	3032	1/12	231.54
Accents Landscaping	3033	1/1	801.56
Weeping Willow Landscape	3022	1/29	271.45
Bridgeport Electrical	3030	11/21	850.34
Law & Landscape	3023	12/30	908.45
Chatsworth Design	3024	5/7	230.81
Canalside Nursery	3024	7/21	702.43
Weeping Willow Landscape	3020	3/24	649.56

**Numerical**

↓

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Slide 5

**Office Excel 2007 : Level 2**

**Sort or Filter Worksheet or Table Data (Contd.)**

◆ The following figure shows a multiple-level sort in both ascending and descending orders.

Vendor	Invoice	Due Date	Amount
Accents Landscaping	3033	1/1	801.56
Amie & Daughters Plumbing	3031	10/4	323.45
Bridgeport Electrical	3030	11/21	214.44
Canalside Nursery	3034	12/4	893.45
Canalside Nursery	3024	7/21	702.43
Canalside Nursery	3021	2/29	239
Canalside Nursery	3032	1/12	231.54
Chatsworth Design	3024	5/7	236.81
Exteriors by Tasha	3026	8/9	452.1
Landscapes & More	3028	4/26	349.76
Lav & Landscape	3023	12/26	214.44
Weeping Willow Landscape	3029	3/6	893.2
Weeping Willow Landscape	3020	3/24	649.56
Weeping Willow Landscape	3022	1/29	273.45
Yamaguchi Lawn Care	3027	9/21	390.53

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The figure in the above slide shows how two criteria's are applied within a single worksheet on the same table. Criteria 2 has been sorted in descending according to the Vendor column. For example, for Weeping Willow Landscape and Canalside Nursery Vendors, the Amount column is sorted in descending order.

Slide 6

**Office Excel 2007 : Level 2**

**Sort or Filter Worksheet or Table Data (Contd.)**

◆ Filters:

- ◆ A filter is a method of viewing data that shows only the data that meets a criterion.
- ◆ Data can be filtered on a single criterion or multiple criteria using numeric and alphabetic information.
- ◆ A filter can rearrange the data in the current table or worksheet range, or copy the information to another location.

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Use the slide to discuss the filter method used to manipulate data. Refer to Page 47 to discuss about the various filter operators.

Slide 7

**Office Excel 2007 : Level 2**

**Sort or Filter Worksheet or Table Data (Contd.)**

◆ The following figures show the unfiltered and filtered data.

**Unfiltered List**

Order Date	Vendor Name
1/5	Dale's Office Supplies
3/12	Ergebnisse Solutions
2/25	Office Furniture & Design
3/2	Winton Office
3/10	Staplers & More
3/15	Executive Services
3/28	Winton Office
3/30	Executive Services
4/1	Winton Office
4/11	Office Environments
4/15	Office Furniture & Design

**Arrows indicate filter is on**

**Filter Criteria**

**Selected Criterion**

**Filtered List**

Order Date	Vendor Name
3/2	Winton Office
3/29	Winton Office
4/1	Winton Office

**Rows that do not meet criteria are hidden**

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Use the figures given in the slide above to discuss the filter method.

Slide 8

**Office Excel 2007 : Level 2**

**Demo: Sorting and Filtering Tables**

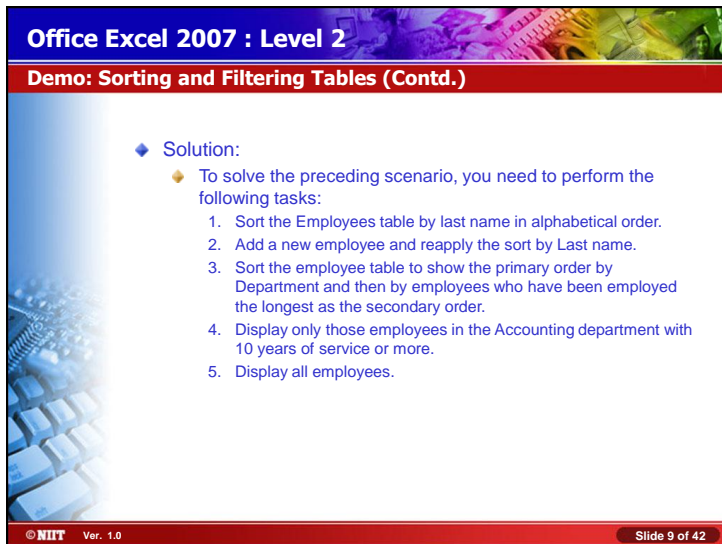
◆ Scenario:

- ◆ You want to quickly look up employees by having your employee table sorted. You will need to add a new employee to your list so you will be required to re-sort the employees for the new employee to be displayed in the correct physical order. Your manager has asked you for a list of only those employees in the Account Department who have been employed for 10 years or more. After you create the list, you want to display all employees to make future filters easier.

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Discuss the scenario of Activity 2-4 of Lesson 2 in the Student Guide with the students.  
 You can access the data file for this activity from the following path in the TIRM CD:  
 TIRM\DATAFILES FOR FACULTY\LEVEL 2\Organizing Worksheet and Table Data\Tables.xlsx

Slide 9



**Office Excel 2007 : Level 2**

**Demo: Sorting and Filtering Tables (Contd.)**

◆ **Solution:**

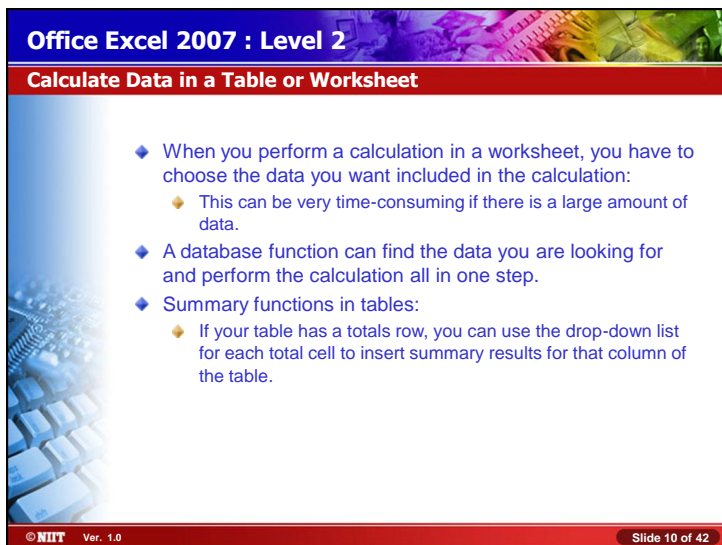
- ◆ To solve the preceding scenario, you need to perform the following tasks:
  1. Sort the Employees table by last name in alphabetical order.
  2. Add a new employee and reapply the sort by Last name.
  3. Sort the employee table to show the primary order by Department and then by employees who have been employed the longest as the secondary order.
  4. Display only those employees in the Accounting department with 10 years of service or more.
  5. Display all employees.

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Discuss the solution with the students. To demonstrate the solution, access the file provided at the following path in the TIRM CD:

TIRM\Data Files For Faculty\SOLUTIONS\Level 2\Organizing Worksheet and Table Data\My Tables.xlsx

Slide 10



**Office Excel 2007 : Level 2**

**Calculate Data in a Table or Worksheet**

- ◆ When you perform a calculation in a worksheet, you have to choose the data you want included in the calculation:
  - ◆ This can be very time-consuming if there is a large amount of data.
- ◆ A database function can find the data you are looking for and perform the calculation all in one step.
- ◆ Summary functions in tables:
  - ◆ If your table has a totals row, you can use the drop-down list for each total cell to insert summary results for that column of the table.

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**Office Excel 2007 : Level 2**

**Calculate Data in a Table or Worksheet (Contd.)**

- ◆ A database function:
  - ◆ Performs a calculation only on data that meets certain criteria.
  - ◆ Starts with the letter D.
  - ◆ Has three arguments:
    - ◆ The database
    - ◆ The field
    - ◆ The criteria
- ◆ The following figure shows a database function.

The diagram shows the formula `=DAVERAGE(B1:C17,2,11:I12)` with labels pointing to its components:

- Database Function** points to the entire formula.
- Function Name** points to `DAVERAGE`.
- Database** points to `B1:C17`.
- Field** points to `2`.
- Criteria** points to `11:I12`.
- Arguments** is a bracketed label encompassing the database, field, and criteria.

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**Office Excel 2007 : Level 2**

**Calculate Data in a Table or Worksheet (Contd.)**

- ◆ AND and OR conditions:
  - ◆ In an AND condition, criteria appear in multiple columns on the same row in the criteria range.
  - ◆ In an OR condition, criteria appear in multiple rows in the criteria range.
- ◆ The following figure shows the AND and OR conditions.

The screenshot shows a spreadsheet with the following data and criteria:

Daily Transactions Summary						Criteria				
Company-wide Sales						Date	Week #	United States	Canada	International
Month of February										
1-Feb	1	809	2948	1307	5864					
3-Feb	1	7261	2534	609	10505					
5-Feb	1	3696	501	400	4697					

The criteria range is shown in the adjacent columns:

Date	Week #	United States	Canada	International
		<700		
			<700	
				<700

Annotations on the slide:

- Filter records to display Week 1 AND United States OR Week 1 AND Canada OR Week 1 AND International where less than 700 products shipped.** (points to the criteria range)
- AND Criteria (same row)** (points to the first row of criteria)
- OR Criteria (separate rows)** (points to the subsequent rows of criteria)

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Tell the students that in Excel 2007, the **AND** function can contain a maximum of 255 conditions. For earlier versions of Excel, the limit is 30 conditions.



**Office Excel 2007 : Level 2**

**Calculate Data in a Table or Worksheet (Contd.)**

- ◆ A subtotal:
  - ◆ Is a function performed on a subset of the data in a worksheet data range that has been sorted.
  - ◆ Can be created using several functions such as sum, average, and count.

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A worksheet can have as many subtotal functions as required. You cannot subtotal tables. If there is a need to subtotal table data, then it is required to convert the table to a data range.

**Office Excel 2007 : Level 2**

**Calculate Data in a Table or Worksheet (Contd.)**

◆ The following figures show the subtotal function.

**List sorted by region**

Branch	Region	Volume
Auckland	1	\$4,391
London	1	\$1,478
Rochester	2	\$3,309
Doylestown	2	\$2,890
Napes	2	\$373
Key Biscayne	3	\$1,268
Miami	3	\$1,223
Cleveland	4	\$7,239
Duluth	4	\$1,265
Camboro	4	\$704
Des Moines	4	\$134

Change in sort field

**List with subtotals**

Branch	Region	Volume
Auckland	1	\$4,391
London	1	\$1,478
<b>1 Total</b>		\$5,869
Rochester	2	\$3,309
Doylestown	2	\$2,890
Napes	2	\$373
<b>2 Total</b>		\$6,572
Key Biscayne	3	\$1,268
Miami	3	\$1,223
<b>3 Total</b>		\$2,491
Cleveland	4	\$7,239
Duluth	4	\$1,265
Camboro	4	\$704
Des Moines	4	\$134
<b>4 Total</b>		\$9,342
<b>Grand Total</b>		\$24,274

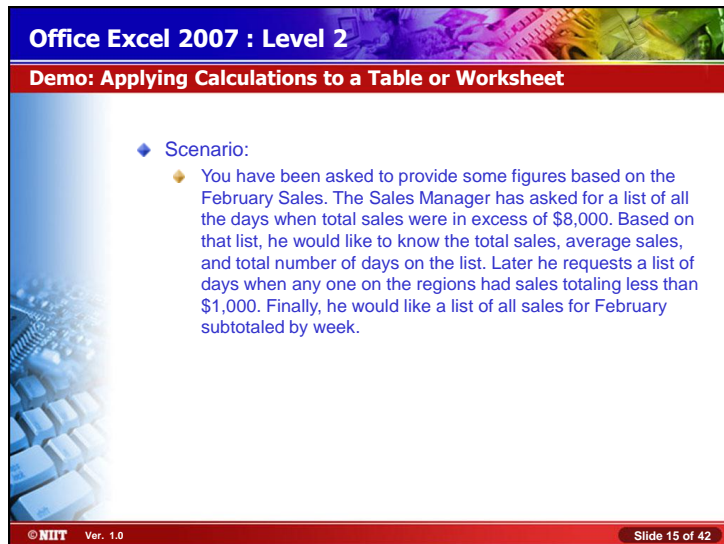
Outline Symbols

Subtotals

Grand Total

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The figures in the above slide consist of two lists, one sorted by region and other consists of subtotals. The second list shows the grand total of all the subtotals.



The slide features a blue header with the text "Office Excel 2007 : Level 2" and a red sub-header "Demo: Applying Calculations to a Table or Worksheet". The main content area is white with a blue gradient on the left side showing a keyboard. A blue diamond icon precedes the "Scenario:" text. A yellow diamond icon precedes the scenario description. The footer is red with "© NIIT Ver. 1.0" on the left and "Slide 15 of 42" on the right.

**Office Excel 2007 : Level 2**

**Demo: Applying Calculations to a Table or Worksheet**

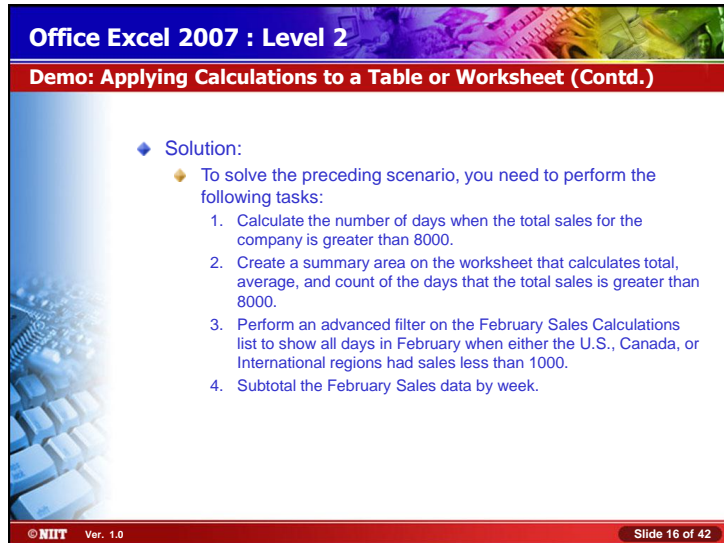
◆ Scenario:

- ◆ You have been asked to provide some figures based on the February Sales. The Sales Manager has asked for a list of all the days when total sales were in excess of \$8,000. Based on that list, he would like to know the total sales, average sales, and total number of days on the list. Later he requests a list of days when any one on the regions had sales totaling less than \$1,000. Finally, he would like a list of all sales for February subtotaled by week.

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Discuss the scenario of Activity 2-5 of Lesson 2 in the Student Guide with the students.

You can access the data file for this activity from the following path in the TIRM CD:  
TIRM\DATAFILES FOR FACULTY\LEVEL 2\Organizing Worksheet and Table Data\Lesson 2\Tables.xlsx

The slide features a blue header with the text "Office Excel 2007 : Level 2" and a red sub-header with "Demo: Applying Calculations to a Table or Worksheet (Contd.)". The main content area is white with a blue gradient on the left side. It contains a "Solution:" section with a diamond icon, followed by a list of tasks. The footer is red and contains the text "©NIIT Ver. 1.0" and "Slide 16 of 42".

**Office Excel 2007 : Level 2**

**Demo: Applying Calculations to a Table or Worksheet (Contd.)**

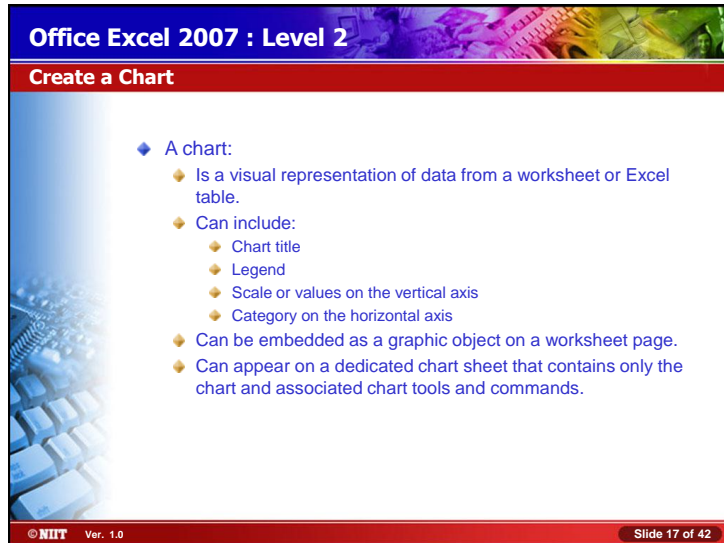
◆ **Solution:**

- ◆ To solve the preceding scenario, you need to perform the following tasks:
  1. Calculate the number of days when the total sales for the company is greater than 8000.
  2. Create a summary area on the worksheet that calculates total, average, and count of the days that the total sales is greater than 8000.
  3. Perform an advanced filter on the February Sales Calculations list to show all days in February when either the U.S., Canada, or International regions had sales less than 1000.
  4. Subtotal the February Sales data by week.

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Discuss the solution with the students. To demonstrate the solution, access the file provided at the following path in the TIRM CD:

TIRM\Data Files For Faculty\SOLUTIONS\Level 2\Organizing Worksheet and Table Data\My Tables.xlsx

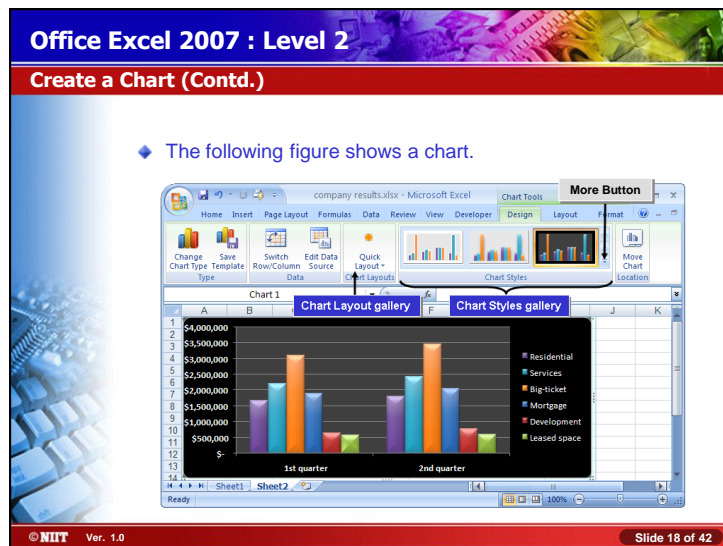


The slide is titled "Office Excel 2007 : Level 2" and "Create a Chart". It features a blue gradient background on the left with a keyboard image. The main content is a bulleted list defining a chart. The footer includes "© NIIT Ver. 1.0" and "Slide 17 of 42".

- ◆ A chart:
  - ◆ Is a visual representation of data from a worksheet or Excel table.
  - ◆ Can include:
    - ◆ Chart title
    - ◆ Legend
    - ◆ Scale or values on the vertical axis
    - ◆ Category on the horizontal axis
  - ◆ Can be embedded as a graphic object on a worksheet page.
  - ◆ Can appear on a dedicated chart sheet that contains only the chart and associated chart tools and commands.

As an example, show the following file to the students and ask them to analyze Sheet 1 of the file.  
TIRM\SOLUTIONS\Level 2\Presenting Data Using Charts\Food Habits.xlsx

After 15 minutes of discussion, show the second sheet, Chart 1. Discuss the solution with the students. Ask the students to figure out the difference between the two sheets, Sheet 1 and Chart 1.



Use the following scenario to discuss the chart given in the slide:

- Residential
- Services
- Big-ticket
- Mortgage
- Development
- Leased space




The Sales department of an organization keeps track of the quarterly profit of the company. In order to show the profit percentage of the company, the Sales department compares the last year's and the current year's earnings from these sectors. Thus, for a better understanding, the Sales department creates a chart to present the data.

For example, as shown in the figure, the company earned \$3,000,000 from the Big-ticket sector in the first quarter. But in the second quarter, the amount has gone up to \$3,500,000, with a profit of \$500,000.

**Office Excel 2007 : Level 2**

**Create a Chart (Contd.)**

◆ Types of Charts:

- ◆  Column  
Column charts are used to compare values across categories.
- ◆  Line  
Line charts are used to display trends over time.
- ◆  Pie  
Pie charts are used to display the contribution of each value to a total.

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Use the slide to discuss about the different chart types that can be used to create the best representation of a particular data.

Then give a brief overview of the chart insertion methods given in Page 65.




You can also use the following links that discusses the different types of charts that serve different purposes.

[http://spreadsheets.about.com/od/c/g/chart\\_def.htm](http://spreadsheets.about.com/od/c/g/chart_def.htm) and

<http://office.microsoft.com/en-us/help/HA012337371033.aspx>

**Office Excel 2007 : Level 2**

**Create a Chart (Contd.)**

-  Bar charts are used for comparing multiple values.
-  Area charts are used to emphasize differences between several sets of data over a period of time.
-  Scatter charts are used to compare pairs of values.

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You can also use the following link that provides the step-by-step Excel chart tutorial, starting from entering data into the spreadsheet.

[http://spreadsheets.about.com/od/excel101/ss/enter\\_data.htm](http://spreadsheets.about.com/od/excel101/ss/enter_data.htm)

**Office Excel 2007 : Level 2**

**Demo: Creating Charts**

◆ Scenario:

- ◆ You have been asked to present your company's financial sales report at a board meeting. Your manager has requested that you present the data in a way that the board members will be able to clearly see the relationships between the different sections of the data. You have determined that a bar chart will be used to compare the monthly sales of Books versus CDs and tapes. You would also like to show board members that the sales of fiction has steadily increased during the past year and you will use a line chart to show this trend. To show how the total budget amount has been allocated between departments, you have decided to use a pie chart.

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Discuss the scenario of Activity 3-1 of Lesson 3 in the Student Guide with the students. You can access the data file for this activity from the following path in the TIRM CD: TIRM\DATAFILES FOR FACULTY\LEVEL 2\Presenting Data Using Charts\Charts.xlsx

**Office Excel 2007 : Level 2**

**Demo: Creating Charts (Contd.)**

◆ Solution:

- ◆ To solve the preceding scenario, you need to perform the following tasks:
  1. Create a 3-D bar chart from the data to compare the monthly sales of products.
  2. Create a Line chart to display the trend in fiction sales.
  3. Create a 3-D Pie chart to display the 2008 budget for each department.

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Discuss the solution with the students. To demonstrate the solution, access the file provided at the following path in the TIRM CD: TIRM\Data Files For Faculty\SOLUTIONS\Level 2\Presenting Data Using Charts\My Charts.xlsx



**Office Excel 2007 : Level 2**

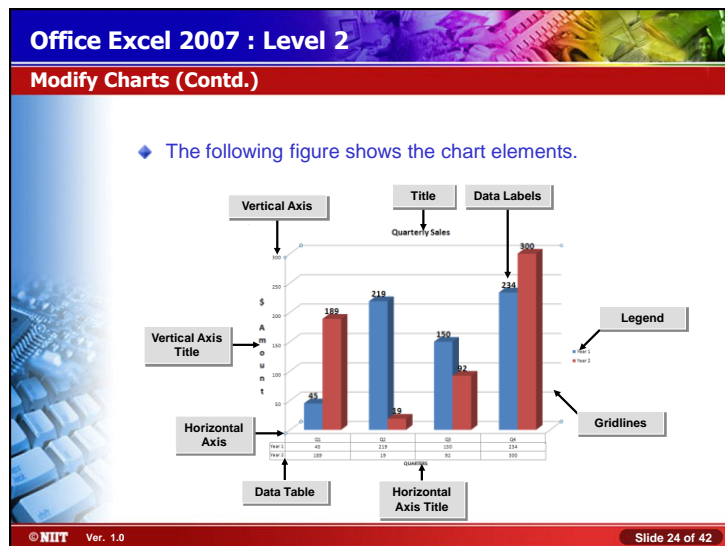
**Modify Charts**

- ◆ You can format each chart item to appear exactly as you need to meet your business requirements.
- ◆ Chart elements:
  - ◆ Chart title
  - ◆ Category (X) axis title
  - ◆ Value (Y) axis title
  - ◆ Axes
  - ◆ Gridlines
  - ◆ Legend
  - ◆ Data labels
  - ◆ Data table

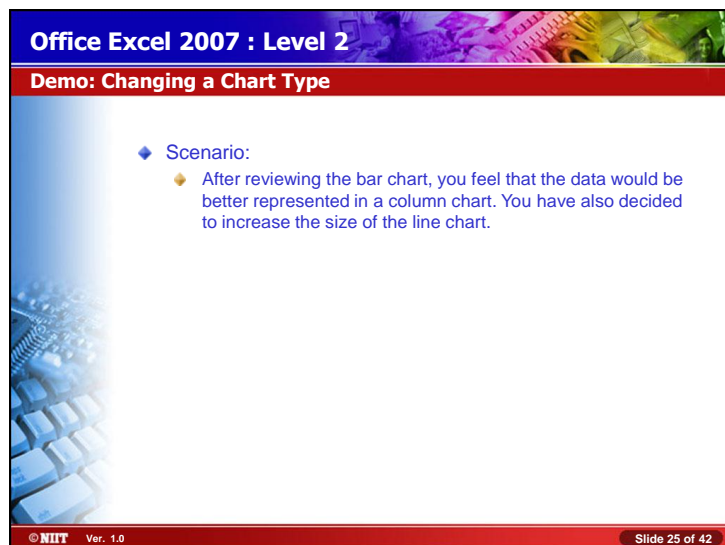
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You can use the following link that provides a demo on creating a combination of Chart in Excel 2007. This link also provides examples for the same.

<http://examples.oreilly.com/9780596527594/Excel/Chapter18/Combination-Chart.html>



Later, discuss the Chart Tools contextual tabs given in Page 69. These tabs are used to manipulate the appearance and layout of charts.



Discuss the scenario of Activity 3-2 of Lesson 3 in the Student Guide with the students.

You can access the data file for this activity from the following path in the TIRM CD:

TIRM\DATAFILES FOR FACULTY\Solutions\LEVEL 2\Presenting Data Using Charts\My Charts.xlsx

Office Excel 2007 : Level 2

Demo: Changing a Chart Type (Contd.)

◆ Solution:

- ◆ To solve the preceding scenario, you need to perform the following tasks:
  1. Change the bar chart to a 3-D Clustered Column chart.
  2. Increase the size of the line chart by approximately 1 inch.

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Discuss the solution with the students. To demonstrate the solution, access the file provided at the following path in the TIRM CD:

TIRM\Data Files For Faculty\SOLUTIONS\Level 2\Presenting Data Using Charts\My Charts.xlsx

You tell the students that to use regular text formatting to format the text in chart elements, they can right-click or select the text, and then click the formatting options that they want on the **Mini toolbar**. They can also use the formatting buttons on the Ribbon (**Home** tab, **Font** group of Microsoft Office user interface).

Slide 27

**Office Excel 2007 : Level 2**

**Demo: Modifying a Chart**

◆ Scenario:

- ◆ You have just created charts for the different sets of data. You have decided to present the pie chart in a separate chart sheet and you would like to modify the chart to include percentages to show the board members how the budget has been divided between the departments. To ensure that the board members can see what the chart represents, you have decided to add a chart title as well as vertical and horizontal axis titles.

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Discuss the scenario of Activity 3-3 of Lesson 3 in the Student Guide with the students. You can access the data file for this activity from the following path in the TIRM CD: TIRM\DATAFILES FOR FACULTY\Solutions\Level 2\Presenting Data Using Charts\My Charts.xlsx

Slide 28

**Office Excel 2007 : Level 2**

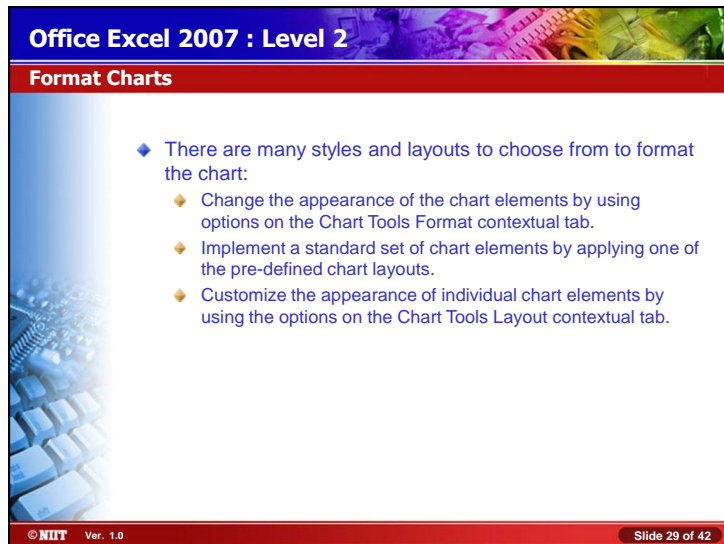
**Demo: Modifying a Chart (Contd.)**

◆ Solution:

- ◆ To solve the preceding scenario, you need to perform the following tasks:
  1. Move the pie chart to a chart sheet and name the sheet 2008 Budget.
  2. Modify the pie chart to display each department's percentage of the total budget for 2008.
  3. Add the chart title Sales Data to the 3-D column chart.
  4. On the 3-D column chart, add a horizontal and vertical axis title.

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Discuss the solution with the students. To demonstrate the solution, access the file provided at the following path in the TIRM CD: TIRM\Data Files For Faculty\SOLUTIONS\Level 2\Presenting Data Using Charts\My Charts.xlsx



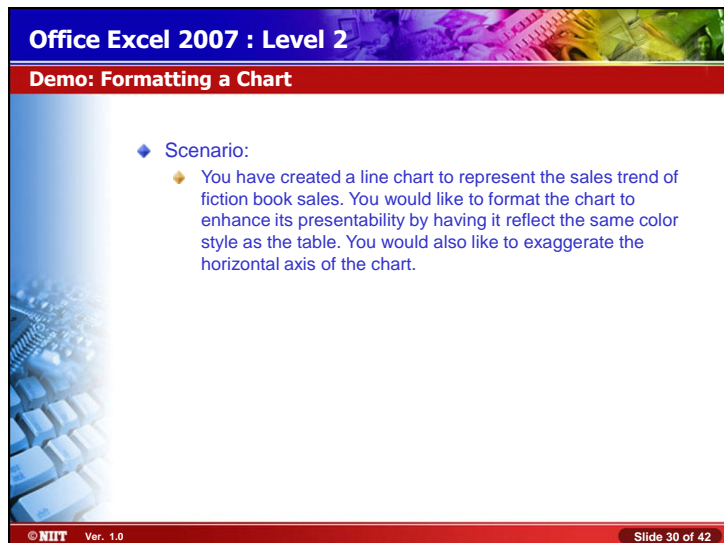
**Office Excel 2007 : Level 2**

**Format Charts**

- ◆ There are many styles and layouts to choose from to format the chart:
  - ◆ Change the appearance of the chart elements by using options on the Chart Tools Format contextual tab.
  - ◆ Implement a standard set of chart elements by applying one of the pre-defined chart layouts.
  - ◆ Customize the appearance of individual chart elements by using the options on the Chart Tools Layout contextual tab.

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You can use the following link that presents good information about Excel 2007 Formatting options.  
[http://spreadsheets.about.com/od/excelformating/a/format\\_hub.htm](http://spreadsheets.about.com/od/excelformating/a/format_hub.htm)



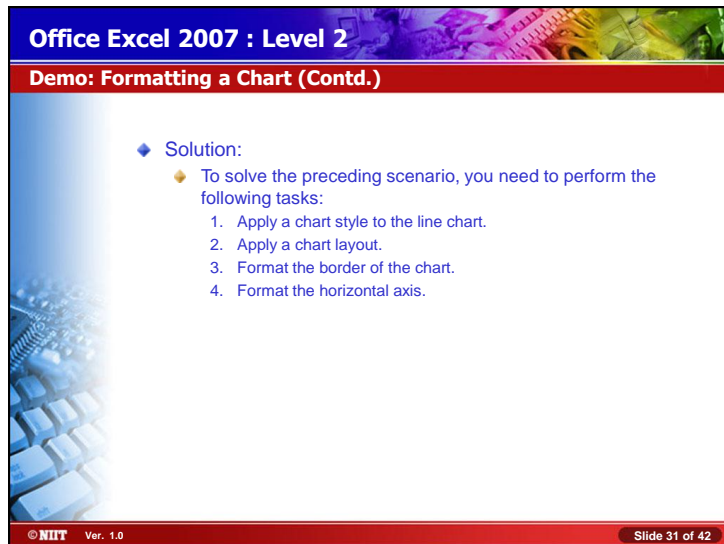
**Office Excel 2007 : Level 2**

**Demo: Formatting a Chart**

- ◆ Scenario:
  - ◆ You have created a line chart to represent the sales trend of fiction book sales. You would like to format the chart to enhance its presentability by having it reflect the same color style as the table. You would also like to exaggerate the horizontal axis of the chart.

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Discuss the scenario of Activity 3-4 of Lesson 3 in the Student Guide with the students.  
You can access the data file for this activity from the following path in the TIRM CD:  
TIRM\DATAFILES FOR FACULTY\LEVEL 2\Presenting Data Using Charts\Charts.xlsx



The slide features a blue header with the text "Office Excel 2007 : Level 2" and a red sub-header "Demo: Formatting a Chart (Contd.)". The main content area is white with a blue gradient on the left side. It contains a "Solution:" section with a blue diamond icon, followed by a yellow diamond icon and a list of four tasks. The bottom of the slide has a red footer bar with "© NIIT Ver. 1.0" on the left and "Slide 31 of 42" on the right.

**Office Excel 2007 : Level 2**

**Demo: Formatting a Chart (Contd.)**

◆ **Solution:**

◆ To solve the preceding scenario, you need to perform the following tasks:

1. Apply a chart style to the line chart.
2. Apply a chart layout.
3. Format the border of the chart.
4. Format the horizontal axis.

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Discuss the solution with the students. To demonstrate the solution, access the file provided at the following path in the TIRM CD:

TIRM\Data Files for Faculty\SOLUTIONS\Level 2\Presenting Data Using Charts\My Charts.xlsx

**Office Excel 2007 : Level 2**

**Create a PivotTable Report**

◆ **PivotTables:**

- ◆ A PivotTable report is an interactive worksheet table used to summarize and analyze large amounts of worksheet data quickly.
- ◆ You create a PivotTable report from source data in an Excel workbook or from an external data source.
- ◆ There are four types of PivotTable fields:
  - ◆ Page
  - ◆ Row
  - ◆ Column
  - ◆ Data fields

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Use the slide to discuss about a PivotTable and its types. A PivotTable can quickly combine and compare data to perform analysis on large amounts of data.

Discuss the Food\_Habits scenario as discussed earlier in Slide 2 of this session. Now the comparison has to be made for the past four years of data. Tell the students that since the data to be used is in such a large amount, therefore, the PivotTables are used instead of the Charts.

Discuss the solution with the students. To demonstrate the solution, access the file provided at the following path in the TIRM CD:

TIRM\Data Files For faculty\SOLUTIONS\Level 2\Presenting Data Using Charts\Food Habits.xlsx

You can also tell the student that PivotTables allow rapid, dynamic, flexible data analysis. Pivot charts add to the flexibility of pivot tables, allowing the same rapid analysis of displayed data, while sacrificing substantial flexibility of normal Excel charts.

You can use the following link that provides a demo on building a PivotTable in Excel 2007. This link also provides some examples where PivotTable is used.

[http://examples.oreilly.com/9780596527594/Excel/Chapter21/Pivot\\_Tables.html](http://examples.oreilly.com/9780596527594/Excel/Chapter21/Pivot_Tables.html)

### **Additional Input:**

Live Microsoft Dynamics data can be delivered in refreshable Excel spreadsheets, such as PivotTables and Pivot charts, to ensure the entire organization is working with consistent, current, and accurate information. Microsoft Office SharePoint Server 2007 allows the users to share and access their Excel spreadsheets via a Web connection and is supported through automated exports directly from within the context of Microsoft

Dynamics. Microsoft Dynamics forms, data, and information can be exported to Microsoft Excel from the List Pages and Task Page of Microsoft Dynamics.

By accessing Microsoft CRM information in Excel, the user has the ability to visually understand sales information, discover trends and drill into exceptions. For example, the user can understand and visualize the opportunity pipeline of Microsoft CRM using Microsoft CRM with Excel.



**Office Excel 2007 : Level 2**

**Create a PivotTable Report (Contd.)**

◆ The following figures show the four types of PivotTable fields.

The diagram illustrates the four types of PivotTable fields and their relationship to the source data. The source data is a table with columns: Year, Month, Product, Copies, and Income. The PivotTable report is structured as follows:

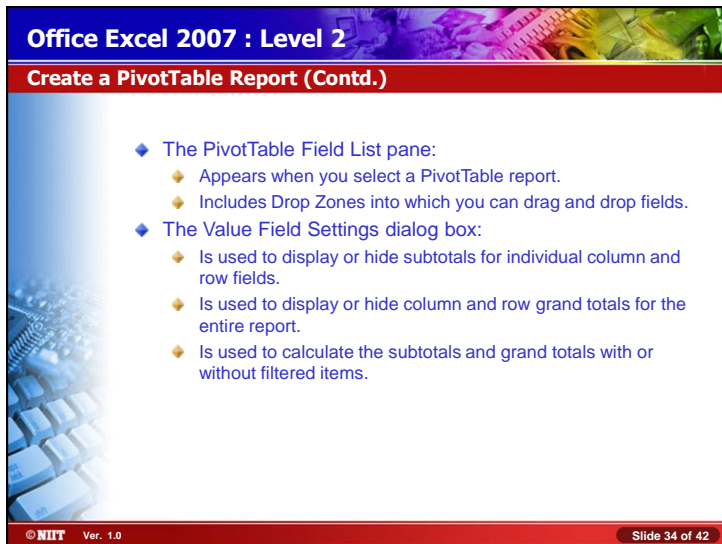
Sum of Copies	Year	2001	2002	2003	Grand Total
Jan		142411	62531	148954	
Feb		134269	6240	139529	
Mar		124048		124048	
Apr		114426		114426	
May		102165		102165	
Jun		90494		90494	
Jul		78845		78845	
Aug		70216		70216	
Sep		61769		61769	
Oct		36997		36997	
Nov		11498		11498	
Dec		8904		8904	
Grand Total		153735	974550	11493	1139778

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The figures in the above slide consist of the source data from which PivotTable report is generated. The PivotTable report consists of the following four types of PivotTable fields:

- Page field
- Row field
- Column field
- Data field

You can also use the following link for having an overview of PivotTable reports and PivotChart reports.  
<http://office.microsoft.com/en-us/excel/HP101773841033.aspx#About%20PivotTable%20reports>



**Office Excel 2007 : Level 2**

**Create a PivotTable Report (Contd.)**

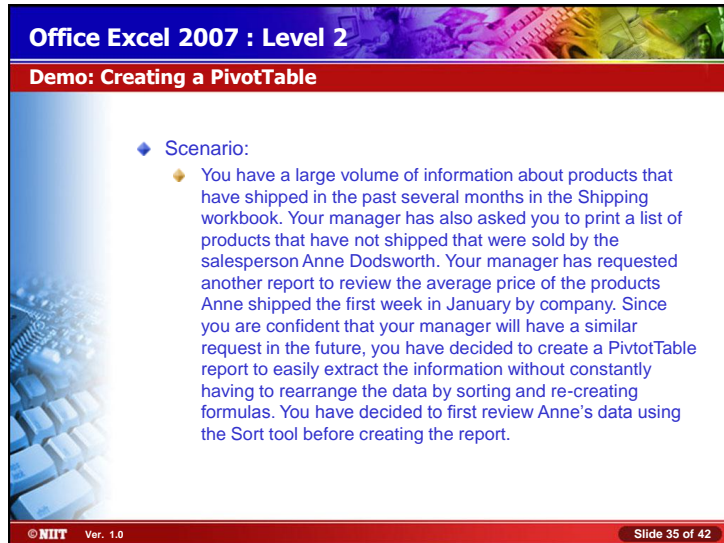
- ◆ The PivotTable Field List pane:
  - ◆ Appears when you select a PivotTable report.
  - ◆ Includes Drop Zones into which you can drag and drop fields.
- ◆ The Value Field Settings dialog box:
  - ◆ Is used to display or hide subtotals for individual column and row fields.
  - ◆ Is used to display or hide column and row grand totals for the entire report.
  - ◆ Is used to calculate the subtotals and grand totals with or without filtered items.

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Discuss the PivotTable functions given in Page 83. These functions help to create a formula to work with PivotTable data.

You can use the following link that beautifully demonstrates the use of PivotTable report to analyze product sales.

<http://office.microsoft.com/home/video.aspx?assetid=ES102390221033&width=884&height=540&startindex=0&CTT=11&Origin=HA102384511033>

The slide features a blue header with the text "Office Excel 2007 : Level 2" and a red sub-header "Demo: Creating a PivotTable". The main content area has a light blue background with a keyboard graphic on the left. It contains a "Scenario:" section with a blue diamond icon, followed by a paragraph of text. The footer is red and contains the text "© NIIT Ver. 1.0" and "Slide 35 of 42".

**Office Excel 2007 : Level 2**

**Demo: Creating a PivotTable**

◆ Scenario:

- ◆ You have a large volume of information about products that have shipped in the past several months in the Shipping workbook. Your manager has also asked you to print a list of products that have not shipped that were sold by the salesperson Anne Dodsworth. Your manager has requested another report to review the average price of the products Anne shipped the first week in January by company. Since you are confident that your manager will have a similar request in the future, you have decided to create a PivotTable report to easily extract the information without constantly having to rearrange the data by sorting and re-creating formulas. You have decided to first review Anne's data using the Sort tool before creating the report.

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Discuss the scenario of Activity 4-1 of Lesson 4 in the Student Guide with the students. You can access the data file for this activity from the following path in the TIRM CD: TIRM\DATAFILES FOR FACULTY\LEVEL 2\Analyzing Data Using PivotTables and PivotCharts\Shipping.xlsx

Slide 36

**Office Excel 2007 : Level 2**

**Demo: Creating a PivotTable (Contd.)**

◆ **Solution:**

◆ To solve the preceding scenario, you need to perform the following tasks:

1. To locate products that have not shipped for Anne Dodsworth sort the worksheet by Salesperson and Shipped Date in ascending order.
2. Create a PivotTable report to extract products sold by salesperson and by shipped date.
3. Modify the Values field settings to calculate the average Extended Price, replace the column label in the PivotTable report to Average Amount Sold, and change the number format to Currency.
4. Create a filter to group the PivotTable by Salesperson and then display products that Anne Dodsworth sold.
5. Display products that Anne Dodsworth shipped the first week in January.

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Discuss the solution with the students. To demonstrate the solution, access the file provided at the following path in the TIRM CD:

TIRM\Data Files for Faculty\SOLUTIONS\Level 2\Analyzing Data Using PivotTables and PivotCharts\My Shipping.xlsx

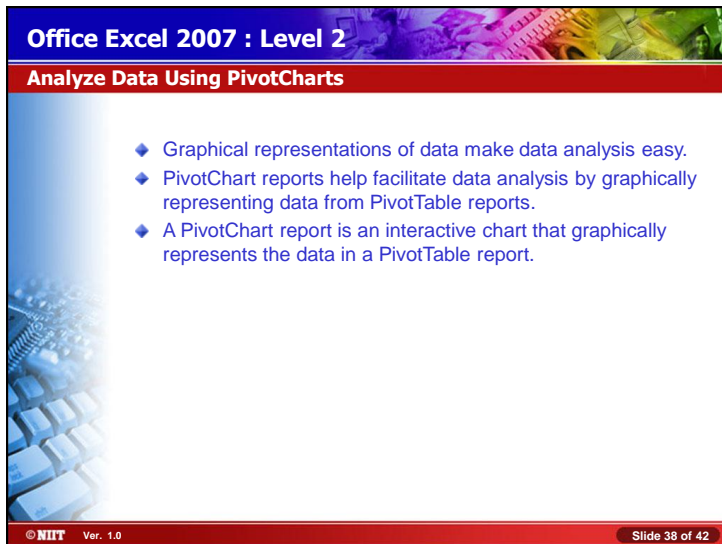
Slide 37

**Office Excel 2007 : Level 2**

**Demo: Creating a PivotTable (Contd.)**

6. In the PivotTable report, display which company the products are shipping to.
7. Include average subtotals by company and format the PivotTable report.

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**Office Excel 2007 : Level 2**

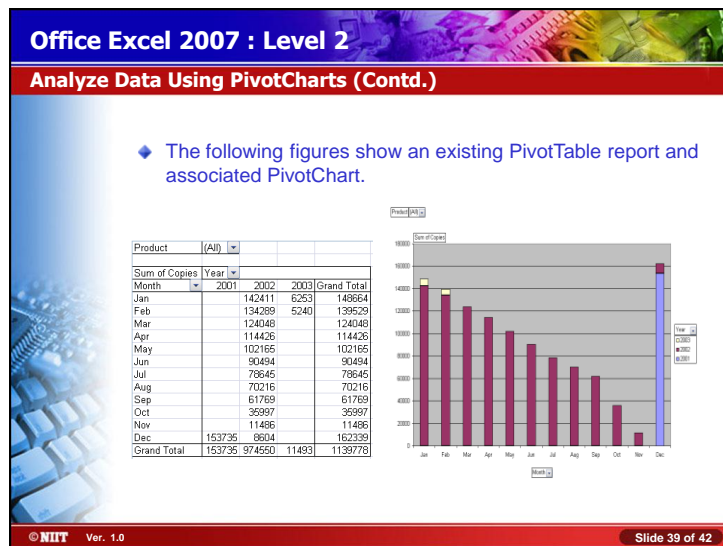
**Analyze Data Using PivotCharts**

- ◆ Graphical representations of data make data analysis easy.
- ◆ PivotChart reports help facilitate data analysis by graphically representing data from PivotTable reports.
- ◆ A PivotChart report is an interactive chart that graphically represents the data in a PivotTable report.

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Students have learned to create PivotTables to analyze the data. Now, they will learn to analyze the data using PivotChart. PivotChart reports help to facilitate data analysis by graphically representing data from PivotTable reports. These PivotTable reports and PivotCharts are used in Microsoft SharePoint Services for data analysis.

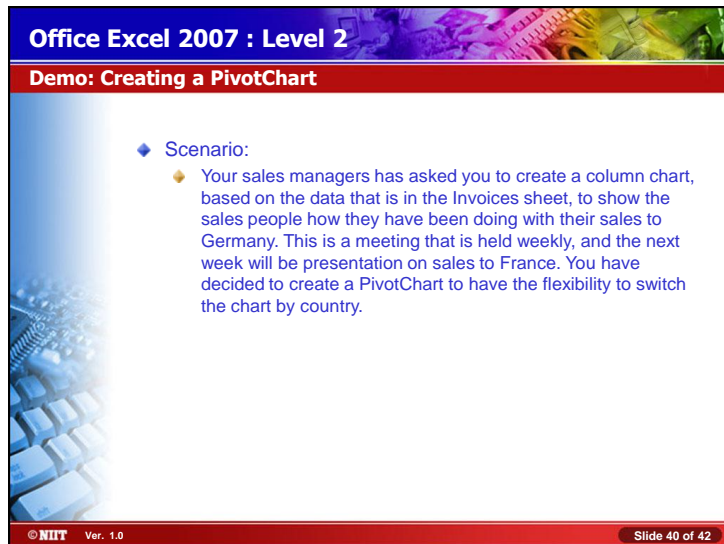
You can use the following link that provides an overview of PivotTable reports and PivotChart reports.  
<http://office.microsoft.com/en-us/excel/HP101773841033.aspx#About%20PivotTable%20reports>



The figures in the above slide show a PivotChart generated from a PivotTable report.

You can use the following link that compares PivotTable report and a PivotChart report. In addition, this link also the difference between PivotChart and standard chart.

<http://office.microsoft.com/en-us/excel/HP101773841033.aspx#About%20PivotTable%20reports>



The slide features a blue header with the text "Office Excel 2007 : Level 2" and a red sub-header "Demo: Creating a PivotChart". The main content area is white with a blue gradient on the left side. It contains a "Scenario" section with a blue diamond icon and a yellow diamond icon. The text describes a task to create a column chart for sales data. The footer is red and contains the NIIT logo, "Ver. 1.0", and "Slide 40 of 42".

**Office Excel 2007 : Level 2**

**Demo: Creating a PivotChart**

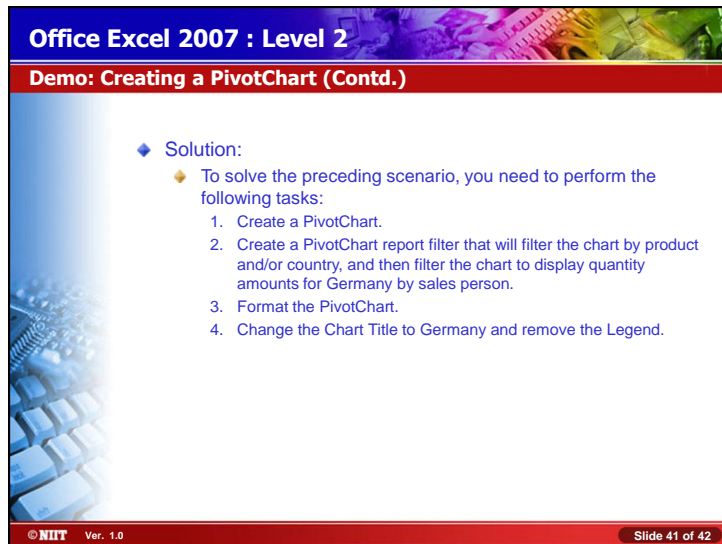
◆ Scenario:

- ◆ Your sales managers has asked you to create a column chart, based on the data that is in the Invoices sheet, to show the sales people how they have been doing with their sales to Germany. This is a meeting that is held weekly, and the next week will be presentation on sales to France. You have decided to create a PivotChart to have the flexibility to switch the chart by country.

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Discuss the scenario of Activity 4-2 of Lesson 4 in the Student Guide with the students.

You can access the data file for this activity from the following path in the TIRM CD:  
TIRM\DATAFILES FOR FACULTY\LEVEL 2\Solutions\Analyzing Data Using PivotTables and PivotCharts\My Shipping.xlsx



**Office Excel 2007 : Level 2**

**Demo: Creating a PivotChart (Contd.)**

◆ **Solution:**

- ◆ To solve the preceding scenario, you need to perform the following tasks:
  1. Create a PivotChart.
  2. Create a PivotChart report filter that will filter the chart by product and/or country, and then filter the chart to display quantity amounts for Germany by sales person.
  3. Format the PivotChart.
  4. Change the Chart Title to Germany and remove the Legend.

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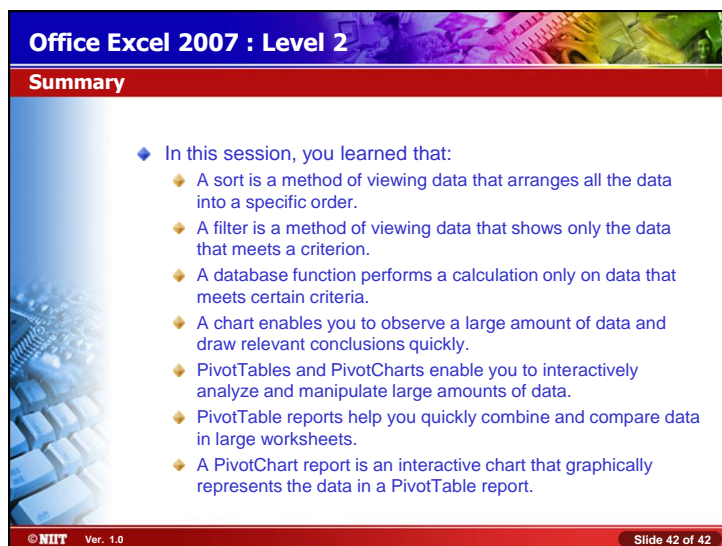
Discuss the solution with the students. To demonstrate the solution, access the file provided at the following path in the TIRM CD:

TIRM\Data Files for Faculty\SOLUTIONS\Level 2\Analyzing Data Using PivotTables and PivotCharts\My Shipping.xlsx

**Additional Input:**

You can use the following link to know to procedure to delete a PivotTable report or a PivotChart report.

<http://office.microsoft.com/en-us/excel/HP100898931033.aspx#Delete%20a%20PivotTable%20report>



**Office Excel 2007 : Level 2**

**Summary**

◆ In this session, you learned that:

- ◆ A sort is a method of viewing data that arranges all the data into a specific order.
- ◆ A filter is a method of viewing data that shows only the data that meets a criterion.
- ◆ A database function performs a calculation only on data that meets certain criteria.
- ◆ A chart enables you to observe a large amount of data and draw relevant conclusions quickly.
- ◆ PivotTables and PivotCharts enable you to interactively analyze and manipulate large amounts of data.
- ◆ PivotTable reports help you quickly combine and compare data in large worksheets.
- ◆ A PivotChart report is an interactive chart that graphically represents the data in a PivotTable report.

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