**EXCEL 2016 – PIVOT TABLES BASICS**

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| **Participant Guide** |



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| **EXCEL 2016 – PIVOT TABLES BASICS** | | |
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| **Target Audience:** | | Experienced Excel users who wish to learn how to create Pivot Tables and Pivot Charts. |
| **Time Allotted:** | | 3 hours |
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| **Objectives:** | | |
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| **Overall:** | At the end of this class, you will be able to create simple Pivot Tables and Pivot Charts. | |
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| **Specific:** | Participant will…   * List three benefits of using Pivot Tables * Construct basic Pivot Tables in Excel * Customize Pivot Table data using advanced features * Name three advantages of using Pivot Charts * Build and tailor basic Pivot Charts using advanced Excel features | |

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| ***Agenda*** | ***Notes*** |
| * Housekeeping * Introductions * Quick PivotTables demonstration * Practical Uses for PivotTables   + When and why to use them   + Power of PivotTables * PivotTables   + Preparing the data   + Basic PivotTables   + Customizing PivotTables * Pivot Charts |  |
| ***Introduction Activity*** | ***Notes*** |
| *Please tell us:*   * *Your Name* * *Your Department* * *You experience creating or using Pivot Tables* |  |
| ***Exercise #1- Quiet Reflection*** | ***Notes*** |
| Spend 1 minute brainstorming uses for Pivot Tables in your own department.  **I will use Pivot Tables in the following ways…..** |  |
| ***Creating a Simple PivotTable*** | ***Notes*** |
| Prepare your data.  * Columns should have a meaningful heading as these become the data fields * Do not mix data types -- each column should contain either text or numbers * Eliminate empty columns and empty rows  1. Click anywhere in the worksheet. 2. On the **Insert** tab, click **PivotTable.**      1. Choose the location for the PivotTable from the **Create PivotTable** dialogue box.      1. Click **OK**. 2. Add fields to the PivotTable by dragging them into the bottom of the field list or by clicking the box next to the field name.     **TIPS:**   * Non-numeric fields automatically default to the row labels * Numeric fields default to columns * Field values can be moved within the quadrants by dragging them to a new location * Fields can be reordered easily by dragging one field above the other |  |
| ***Exercise 2*** | ***Notes*** |
| 1. Open **UV\_PAY.xlsx**. 2. Examine the data. 3. Read the scenario below and construct a basic Pivot Table according to the scenario.   ***Scenario:*** You are a business manager and have been asked by your department head to produce a Pivot Table that she can use to understand the total amount of pay each person earns per year. Your manager has also asked that you also show the payroll dates for each person. Construct a basic Pivot Table to give your manager the data she has requested.  *Hint:*  What three fields do you need to show in your Table?   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| ***Customizing PivotTables*** | ***Notes*** |
| ***Analyze Ribbon Groups***   * ***PivotTable-*** Displays overall setup options for the current PivotTable * ***Active Field -*** Changes the settings for the field that is currently active * ***Group -*** Groups or ungroups selected fields * ***Filter -*** Applies sorting and slicing to columns. Slicing can be used to filter data * ***Data*** - Refreshes or replaces the data that is feeding an existing PivotTable * ***Actions -*** Automatically clears, moves or selects an element of a PivotTable * ***Calculations -*** Changes the way values display in the PivotTable * ***Tools -*** Adds a PivotChart to an existing table * ***Show -*** Toggles the Field List, Expand/Collapse Buttons, and Field Headers |  |
| ***Customizing PivotTables*** | ***Notes*** |
| ***Design Ribbon Groups***   * ***Layout -*** Changes the way Subtotals and Grand Totals display, changes the overall display layout of the PivotTable, adds or removes a blank row between each item * ***PivotTable Style Options-*** Changes the appearance of the PivotTable * ***PivotTable Styles -*** Applies predefined color and banding themes |  |
| ***Exercise 3*** | ***Notes*** |
| 1. Open the spreadsheet **Mission Expedition Sales.xlsx**. 2. Re-create this Pivot Table.      1. Using your knowledge of Pivot Tables, answer the following questions. You will need to make a number of changes to your Pivot Table to find the answers to all of these questions.  * What was the value of catalog sales for London in the first quarter? * What percent of the total annual sales were Tokyo Web sales in the fourth quarter? * What percent of Sydney's annual sales were Catalog sales? * What was the value of catalog sales for London in January? Show details of the transactions? * What was the value of Camel saddle sales for Paris in 2015 by quarter?  |  |  | | --- | --- | | 1st Quarter |  | | 2nd Quarter |  | | 3rd Quarter |  | | 4th Quarter |  |  * How many Elephant polo sticks were sold in New York in each month of 2015?  |  |  |  |  | | --- | --- | --- | --- | |  | Sticks Sold |  | Sticks Sold | | January |  | July |  | | February |  | August |  | | March |  | September |  | | April |  | October |  | | May |  | November |  | | June |  | December |  | |  |
| ***Pivot Charts*** | ***Notes*** |
| You can easily create a PivotChart that is tied to the data in the PivotTable.   1. From the **Analyze** tab, in the **Tools** group, click on **PivotChart**. 2. Select a chart appropriate for the data and click **OK**. 3. The chart will populate. 4. Click in the chart to change the format of the table. 5. Toggle filter labels off and on by selecting commands in the **Show** group on the **Analyze** tab. |  |
| ***Exercise 4*** | ***Notes*** |
| 1. Open **Pivot Chart.xlsx** 2. Examine the data. 3. Read the scenario below and construct a basic Pivot Table according to the scenario.   ***Scenario:*** You are a business manager and have been asked by your department head to produce a Pivot Table that she can use to understand the total amount spent in a year by account. She would like the Pivot Table to display the following:   * Dates by quarter * Expense amount * Be filtered by Account Description |  |
| ***Exercise 5*** | ***Notes*** |
| Using the Pivot Table created in Exercise 4, create a PivotChart that will:   * Show a single expense by quarters * Display the expense type as the chart title * Show the data labels on the chart |  |
| ***How Do I?*** | ***Notes*** |
| **Configure a PivotTable to give a count of items instead of a sum**   1. Click the drop-down arrow to the right of entry in the **Values** field.      1. Select **Value Field Settings** from the menu options. 2. Select the **Summarize Values By** tab. 3. Select **Count** from the list of options.     **Change the Way a Value is Calculated in an Existing Table**   1. Click the drop-down arrow to the right of entry in the **Values** field. 2. Select **Value Field Settings** from the menu options.      1. Click on the **Show Values As** tab. 2. Click on the drop-down arrow in **Show Values as**and select the way the value is calculated.     **Display Budget Account and Description on the Same Line**   1. Click into the first field you want to adjust. 2. From the **Analyze** tab, click on **Field Settings** in the **Active Field** group. 3. In the **Field Settings** dialogue box, choose the **Layout & Print** tab. 4. Select **Show item labels in tabular form**. 5. Click **OK**. 6. Repeat for the next field.   **Remove Totals or Subtotals**   1. From the **Design** tab, click on **Subtotals** in the **Layout** group. 2. Choose **Do Not Show Subtotals**.     **Hide Zero Values in a PivotTable Report**   1. Right click on the field you wish to filter 2. Click **Filter** and then click **Value Filters** 3. Set up your filter. To hide zero values, set up the filter as displayed in this screenshot.      1. Click **OK**.   **Group Data by Quarter**   1. In the PivotTable report, click any date. 2. On the **Analyze** tab, in the **Group** group, click the **Group Field** button. 3. The **Grouping** window opens. 4. In the **Starting at** box, enter the first date. 5. In the **Ending at** box, enter the last date. 6. In the **By** box, click on **Month** to unselect it, then click on **Quarters** to select it. 7. Click **OK**.     **ANSWER KEY** |  |
| ***Exercise 2*** | ***Notes*** |
| **Read the scenario below and construct a basic Pivot Table according to the scenario.**  ***Scenario:*** You are a business manager and have been asked by your department head to produce a Pivot Table that she can use to understand the total amount of pay each person earns per year. Your manager has also asked that you also show the payroll dates for each person. Construct a basic Pivot Table to give your manager the data she has requested.  **Setup:** |  |
| ***Exercise 3 Mission Expedition Exercise*** | ***Notes*** |
| **Q1: Re-create this Pivot Table**    **Setup:**    **Formatting:**   * Add dollar signs as you would format sheet normally. * Turn field headers off. **Analyze Tab> Show> Field Headers**   **Q2: What was the value of catalog sales for London in the first quarter?**  **Answer:** $7810. 00    **Setup:**    **Formatting:**   * Group **WHEN** by **Quarters**   1. In the PivotTable report, click any date.   2. On the **Analyze** tab, in the **Group** group, click the **Group Field** button.   3. The **Grouping** window opens.   4. In the **Starting at** box, enter the first date.   5. In the **Ending at** box, enter the last date.   6. In the **By** box, click on **Month** to unselect it, then click on **Quarters** to select it.   7. Click **OK**.   **Q3: What percent of the total annual sales were Tokyo Web sales in the fourth quarter?**  **Answer:** .01%    **Setup:**    **Formatting:**   * Change Revenue to display **% of Grand Total**.  1. Click on the drop-down arrow next to **Sum of Revenue** in the **Values** section of **PivotTable Fields**. 2. Select **Value Field Settings**. 3. Click on the **Show Values As** tab. 4. Click on the **Show values as** drop-down arrow. 5. Select **% of Grand Total**. 6. Click **OK**.   **Q4: What percent of Sydney's annual sales were Catalog sales?**  **Answer:** 18.24%    **Setup:**    **Formatting:**   * **Sum of Revenue** formatted to show as **% of Grand Total** * Filter **WHERE** to **Sydney**   **Q5: What was the value of catalog sales for London in January? Give details of the transactions?**  **Answer:** $411.00    **Setup:**    **Formatting:**   * Group **WHEN** by **Months** * Add **WHAT** to PivotTable Fields * Change **WHERE** to **London** * **Sum of Revenue** formatted to show as **No Calculation**   **Q6: What was the value of Camel Saddle sales for Paris in 2012 by quarter?**  **Answer:**    **Setup:**    **Formatting:**   * Change **WHERE** to **Paris** * Change **WHAT** to **Camel Saddle** * Group **WHEN** by **Quarters**   **Q7: How many Elephant polo sticks were sold in New York in each month of 2012?**  **Answer:**  **Setup:**    **Formatting:**   * Change **WHERE** to **New York** * Change **WHAT** to **Elephant polo stick** * Group **WHEN** by **Months** |  |
| ***Exercise 4*** | ***Notes*** |
| **Read the scenario below and construct a basic Pivot Table according to the scenario.**  ***Scenario:*** You are a business manager and have been asked by your department head to produce a Pivot Table that she can use to understand the total amount spent in a year by account. She would like the Pivot Table to display the following:   * Dates by quarter * Expense Amount * Be filtered by Account Description     **Setup:**    **Formatting:**   * Group **Acctg Date** by **Quarters** |  |
| ***Exercise 5*** | ***Notes*** |
| **Using the Pivot Table created in Exercise 4, create a PivotChart that will:**   * Show a single expense by quarters * Display the expense type as the chart title * Show the data labels on the chart itself     **Formatting:**   * Turn off chart filters on the **Field Buttons** in the **Show/Hide** group in the **Analyze** tab. * To display the account description as the title, click on the title in the chart to activate it. Next, click into the top of the spreadsheet (where you would type a formula) and type **=** then click on the cell containing the account description. In this example, it should be **B1**. Press the **Enter** key. |  |
| ***Additional Resources*** | ***Notes*** |
| ***To contact me directly:***  Brett Neal – Professional Development & Training  [brett.neal@uvm.edu](mailto:Tara.Messier@uvm.edu)  **NOTE**: If you are having problems with a spreadsheet, sending me a copy will make it easier for me to help you!  **Additional Resources:**  To view all classes offered by Professional Development & Training, go to our website <http://www.uvm.edu/develop>. Here you can view the class schedule by date, read class descriptions, learn about the certificate programs we offer, and find PeopleSoft Mini Manuals. |  |