



Excel 2021 In Practice - Ch 4 Independent Project 4-4

Independent Project 4-4

Eller Systems has received contract data in a text file. You transform and import, sort, and filter the data. You also create a *PivotTable*, prepare a worksheet with subtotals, and format related data as an Excel table.

[[Student Learning Outcomes 4.1, 4.3, 4.5, 4.6, 4.8](#)]

File Needed: **Eller-04.xlsx** (Available from the Start File link.) and **EllerText-04.txt** (Available from the Resources link.)

Completed Project File Name: **[your name]-Eller-04.xlsx**

Skills Covered in This Project

- Format data in an Excel table.
- Sort data in an Excel table.
- Import a text file.
- Transform data in *Power Query*.
- Sort data by multiple columns.
- Add a calculated field in a table.
- Create a *PivotTable*.
- Format fields in a *PivotTable*.
- Use the *Subtotal* command.

Steps to complete This Project

Mark the steps as checked when you complete them.

- ☐ Open the **Eller-04** start file. If the workbook opens in *Protected View*, click the **Enable Editing** button so you can modify it. The file will be renamed automatically to include your name. Change the project file name if directed to do so by your instructor, and save it.
- ☐ Click the **Billable Hours** sheet tab and select cell **A4**.
- ☐ Click the **Format as Table** button [*Home* tab, *Styles* group], use **Light Gray, Table Style Medium 11**.
- ☐ Select cell **C6** and type the formula **=C5+1** to add one to the date in the previous cell.
- ☐ *AutoFill* the formula to copy it to row **51**.
- ☐ Type **.5 Add On** in cell **E4** and press **Enter**.
- ☐ Build a formula in cell **E5** to add **.5** to cell **D5** and press **Enter** to copy the formula. Format results to display two decimal places and apply **All Borders**.
- Copy dates as values.
 - ☐ Select cell **C5**. Cell C5 is a reference to the *TODAY* function in cell F2.
 - ☐ Sort the column by date in newest to oldest order. Because the dates are calculated, the formulas are wrong. The date that was originally in cell C5 sorted to row 51 and now has a relative reference to cell F48. ([Figure 4-113](#)).

- c. ☐ Click the **Undo** button [*Undo* group, *Home* tab] and select cell **C5**. The formulas are restored.
- d. ☐ Select cells **C5:C51**. You can copy and paste to replace the formulas with the actual dates.
- e. ☐ Press **command+C** to copy the range to the *Clipboard*.
- f. ☐ Select cell **C5** and click the **arrow** with the *Paste* button [*Home* tab, *Clipboard* group].
- g. ☐ Choose **Paste Values**.
- h. ☐ Press **Esc** to remove the moving border and click cell **C5**. Formulas are replaced with the date. Your dates will be different from figures in this text.

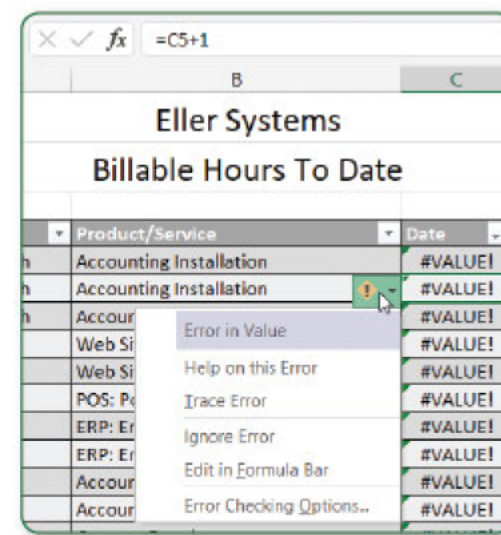


Figure 4-113 Errors result when calculated dates are sorted

9. ☐ Sort the table by product/service in ascending order.
10. Import data from a text file.
 - a. ☐ Select the **Contracts** sheet tab and select cell **A4**.
 - b. ☐ Use the *From Text (Legacy)* command to preview the **EllerText-04.txt** file downloaded from the *Resources* link in the *Import Data* window.
 - c. ☐ Click **Next** in the *Text Import Wizard* to move on to step 2.
 - d. ☐ Click **Next** in the *Text Import Wizard* after verifying *Tab* is selected under *Delimiters*.
 - e. ☐ Click **Finish** to close the *Text Import Wizard* and import the data.
 - f. ☐ Load the data to cell **A4** in the existing worksheet.
 - g. ☐ Click **column C**, the *Address* column, to select it. Delete the column to remove it.
 - h. ☐ The *Phone Number* column should be selected. If it is not, select **column C**, and delete the column to remove the *Phone Number* data.
 - i. ☐ Use **command** to select columns **D**, **E**, and **G** and **Delete** them to remove the **ZIP**, **ID**, and **First Contact** data from the worksheet.
 - j. ☐ Select cells **A4:E31** and click the **Format as Table** button [*Home* tab, *Styles* group], use **Green, Table Style Medium 7** style. **NOTE:** If you receive a message saying the selection overlaps one or more external data ranges, click **Yes** in the message box to convert the selection to a table and remove all external connections.
11. Place a formula in a table.
 - a. ☐ Select cell **F4**, type **Fees** as the header, and press **Enter**.
 - b. ☐ Select cell **F5** and build a formula to multiply the value in cell **E5** by **225**.
 - c. ☐ Format the values in column **F** as **Currency** with zero decimal places.
 - d. ☐ Click cell **A5**.
12. ☐ Sort the data by **Fees** and then by **City**, both in ascending order.
13. ☐ Change the font size for cells **A1:A2** to **20 pt.** and set the font style to **bold**.
14. ☐ Select cells **A1:F2** and center them across the selection.
15. ☐ Copy the **Billable Hours** sheet to the end and name the copy **Data**.
16. Create a *PivotTable*.
 - a. ☐ Select cell **A5** and click the **Table Name** box [*Table* tab, *Properties* group].
 - b. ☐ Name the table **tblHours**.
 - c. ☐ Click the **Summarize with PivotTable** button [*Table* tab, *Tools* group]. The range is identified as *tblHours*.
 - d. ☐ Verify that **New Worksheet** is selected and click **OK**.
 - e. ☐ Name the sheet **PivotTable**.
17. Manage fields in a *PivotTable*.
 - a. ☐ Show the **Product/Service** and **Billable** fields in the *PivotTable*.
 - b. ☐ Drag the **Billable** field from the *Field Name* area below the **Sum of Billable** field in the *Values* area so that it appears twice in the report layout and the pane.
 - c. ☐ Select cell **C4** and open the **Value Field Settings** dialog box.
 - d. ☐ Type **Average Hours** as the *Custom Name*, choose **Average** as the calculation, and set the *Number Format* to **Number** with two decimal places.
 - e. ☐ Open the **Value Field Settings** dialog box for cell **B4** and set its *Custom Name* to **Total Hours** and the number format to **Number** with two decimal places.
 - f. ☐ Apply **Dark Gray, Pivot Style Dark 11** with banded rows and columns.
18. ☐ Select the **Data** sheet tab and copy cells **A1:A2** to cell **A1** on the **PivotTable** sheet. Left align cells **A1:A2** on the **PivotTable** sheet (Figure 4-116).
19. Create subtotals.

- ☐ Copy the **Data** sheet to the end and name the copy **Subtotals**.
 - ☐ Select cell **A5** and convert the table to a range. You cannot use the *Subtotal* command in a table.
 - ☐ Select cells **A5:E51** and apply **No Fill** [*Home* tab, *Font* group].
 - ☐ Select cells **A4:E4** and change the font color to **Black, Text 1**.
 - ☐ Use the *Subtotal* command to show a **SUM** for billable and add on amounts for each product/service.
 - ☐ Apply **All Borders** to cells **A56:E57**.
 - ☐ Display only the product/service and grand totals.
20. ☐ Save and close the workbook ([Figure 4-117](#)).

	A	B	C
1	Eller Systems		
2	Billable Hours To Date		
3	Row Labels	Total Hours	Average Hours
4	Accounting Installation	54.00	4.91
5	Content Development	40.00	4.44
6	ERP: Enterprise Resource Planning	37.00	6.17
7	POS: Point of Sale Installation	31.75	3.97
8	Web Site Development	55.75	4.29
9	Grand Total	218.50	4.65

Figure 4-116 Completed *PivotTable*

	A	B	C	D	E
1	Eller Systems				
2	Billable Hours To Date				
3					
4	Client Name	Product/Service	Date	Billable	.5 Add On
16		Accounting Installation Total		54.00	59.50
26		Content Development Total		40.00	44.50
33		ERP: Enterprise Resource Planning Total		37.00	40.00
42		POS: Point of Sale Installation Total		31.75	35.75
56		Web Site Development Total		55.75	62.25
57		Grand Total		218.50	242.00
58					
59					

Figure 4-117 Excel 4-4 completed

21. ☐ Upload and save your project file.
22. ☐ Submit file for grading.