Guided Project 4-3

Clemenson Imaging analyzes expense reports from field representatives as well as patient and image data. To complete the worksheets, you format data as a table and build an advanced filter. You import a comma-separated text file (.csv) and use the Subtotal command. Finally, you display data in a PivotTable.

Skills Covered in This Project

- Format data as an Excel table.
- Build an Advanced Filter.
- Apply conditional formatting to filtered results.
- Sort data by multiple columns.

- Import a comma-separated text file.
- Use the Subtotal command.
- Export data via the Clipboard.
- Create a PivotTable.

↰ Alternate This image appears when a project instruction has changed to accommodate an update to Microsoft Office 365. If the instruction does not match your version of Office, try using the alternate instruction instead.

IMPORTANT: Download the resource file(s) needed for this project from the **Resources** link. Be sure to extract the file after downloading the resource(s) zipped folder. Please visit **SIMnet Instant Help** for step-by-step instructions.

Step 1
Download start file

1. Open the ClemensonImaging-04 start file. Click the **Enable Editing** button. The file will be renamed automatically to include your name. Change the **project file** name if directed to do so by your instructor.
2. Copy the **Past&Projected** sheet before the **Criteria** sheet and name the copied sheet **Adv Filter**.
3. Create and format an Excel table.
   a. Select cells **A4:E60** on the **Adv Filter** sheet.
   b. Click the **Quick Analysis** tool and choose **Tables**.
   c. Click **Table**.
4. Apply a table style.
   a. Click cell **A5** in the table.
   b. Click the **More** button [*Table Tools Design* tab, *Table Styles* group].
   c. Select **White, Table Style Medium 15**.

   ↰ Alternate Select **Table Style Medium 15**.
5. Create an output range for an *Advanced Filter*.
   a. Select cells **A4:E4** and copy and paste them to cell **G4**.
   b. Type **Extract Range** in cell **G3** and set the font to **Cambria 16 pt**.
   c. Adjust column widths to show the labels.
6. Create an *Advanced Filter*.
   a. Click the **Criteria** sheet tab.
   b. Type **>12/31/16** in cell **A3** to find records after 2016.
   c. Type **mri** in cell **B3**.
   d. Type **>12/31/14** in cell **A4** to find records after 2014.
   e. Type **ct scan** in cell **B4**. This criteria will find records dated 2017 or later for MRIs *and* records for CT scans after 2014 (Figure 4-90).

	A	B	C	D	E
1	Criteria Range				
2	Month	Image	Patients	Total Hours	# of Employees
3	>12/31/16	mri			
4	>12/31/14	ct scan			

4-90 Criteria for *Advanced Filter*

f.   Click cell **A5** on the **Adv Filter** sheet.

g.   Click the **Advanced** button [*Data* tab, *Sort & Filter* group].

h.   Select the **Copy to another location** radio button.

i.   Verify that the **List range** is cells **A4:E60**. If the range is incorrect, click and drag to select the range including the header row.

j.   Click the **Criteria range** box and select cells **A2:B4** on the **Criteria** sheet.

k.   Click the **Copy to** box and select cells **G4:K4** on **Adv Filter** sheet.

l.   Click **OK** in the *Advanced Filter* dialog box.

↑ **Alternate**   In some versions of *Office*, the above instructions to create an *Advanced Filter* may not work. If you experience this issue, complete instructions **6. a-e** as listed below, then continue with instruction **6.f-l** above.

6.   Create an *Advanced Filter*.
a.   Click the **Criteria** sheet tab.
b.   Type **>Dec 2016** in cell A3 to find records after 2016.
c.   Type **mri** in cell B3.
d.   Type **>Dec 2014** in cell A4 to find records after 2014.
e.   Type **ct scan** in cell **B4**. This criteria will find records dated 2017 or later for MRIs *and* records for CT scans after 2014.

7.   Sort data in the output range.
a.   Right-click cell **H5**, choose **Sort**, and select **Sort A to Z**.
b.   Right-click cell **G5**, choose **Sort**, and select **Sort Oldest to Newest**. This sorts the results by date, earliest date first.

8.   Apply conditional formatting and borders.
a.   Select cells **I5:I14**.
b.   Click the **Conditional Formatting** button [*Home* tab, *Styles* group].
c.   Choose **Highlight Cells Rules** and **Greater Than**.
d.   Type **750** and choose **Green Fill with Dark Green Text**.
e.   Click **OK**.
f.   Select cells **G5:K14** and apply **All Borders** (Figure 4-91).
g.   Press **Ctrl+Home**.

Extract Range				
Month	**Image**	**Patients**	**Total Hours**	**# of Employees**
Apr 2015	CT Scan	1000	1800	5
Aug 2015	CT Scan	500	2400	3
Dec 2015	CT Scan	500	2400	2
Apr 2016	CT Scan	500	2400	3
Aug 2016	CT Scan	750	2400	3
Dec 2016	CT Scan	500	1800	4
Jan 2017	MRI	1000	1800	3
Apr 2017	CT Scan	750	2400	2
May 2017	MRI	750	3000	4
Aug 2017	CT Scan	500	2400	3

4-91 Advanced Filter *results*

9.   Import a comma-separated values text file.
a.   Click the **Expense Info** sheet tab.
b.   Select cell **A5**.
c.   Click the **From Text/CSV** button [*Data* tab, *Get &Transform Data* group].

Download Resources ▶

d.   Find and select the ***ClemensonImaging-04.csv*** file, downloaded from the **Resources** link, in the *Import Data* window.
e.   Click **Import**.
f.   In the *Get Data Editor*, click the **Load** arrow and select **Load To**...

g. Select **Existing worksheet**. Verify that cell **A5** displays as the destination (Figure 4-92).
h. Click **OK** to import the data.
i. Cut and paste the labels in row **4** to replace the labels in row **5**. Delete row **4** to move the table up one row.
j. Select cell **A4** and click the **Convert to Range** button [*Table Design* tab, *Tools* group].
k. Click **OK** to remove the query definition.
l. Select columns **A:D** and size each column to **12.11 (90 pixels)** wide.
m. Deselect the columns.
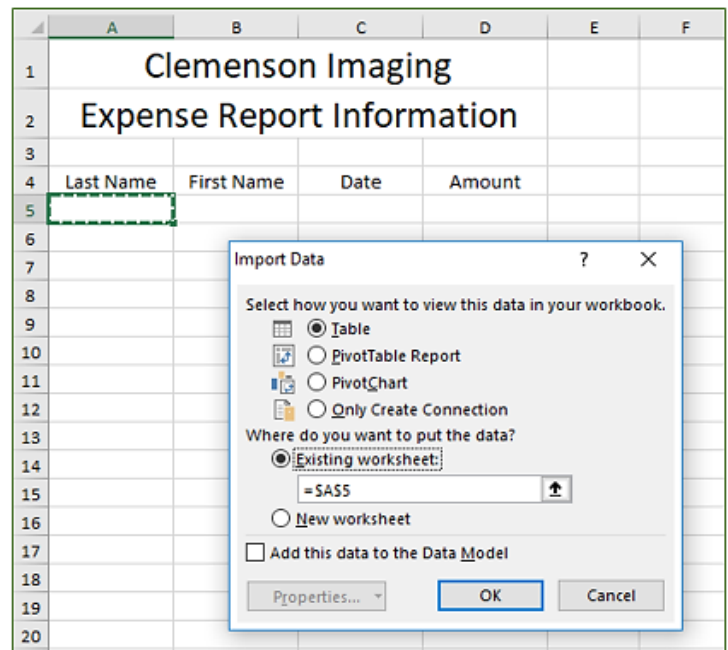
4-92·Import·Data·*dialog·box·for·CSV·file*

↰ Alternate 9. Import a comma-separated values text file.
a. Click the **Expense** Info sheet tab.
b. Select cell **A5**.

c. Click the **From Text** button [*Data* tab, *Get External Data* group].
d. Find and select the **ClemensonImaging-04.csv** file (downloaded from the **Resources** link) in the *Import Text File* window.
e. Click **Import**.
f. Select the **Delimited** button in the first *Wizard* window and click **Next**.
g. Deselect the **Tab** box and select the **Comma** box.
h. Click **Next**.
i. Click the date column in the **Data** preview area in the third *Wizard* window.
j. Click the **Date** radio button in the **Column data format** group. Click **Finish**.
k. Deselect the **Add this data to the Data Model box** in the Import **Data dialog box**, and click **OK**.
l. Select columns **A:D** and size each column to **12.11 (90 pixels)** wide.
m. Deselect the columns.

10. Use the *Subtotal* command.
a. Close the *Queries & Connections* pane and click cell **A5**.
b. Click the **Sort A to Z** button [*Data* tab, *Sort & Filter* group] to sort by last name.
c. Click the **Subtotal** button [*Data* tab, *Outline* group].
d. Verify that **Last Name** is selected for **At each change in**.
e. Click the **Use function** arrow and choose **Average**.
f. Check the **Amount** box in the *Add subtotal to* area.
g. Click **OK**.
h. Format the values in column **D** as **Currency** with zero decimal places.

11. Collapse outline groups.
  a. Click the collapse symbol (-) for Allen in row **8**.
  b. Click the collapse symbol (-) for McAllister (Figure 4-93).
12. Create a *PivotTable*.
  a. Click the **Past&Projected** sheet tab.
  b. Select cells **A4:E60**.
  c. Click the **Quick Analysis** tool and choose **Tables**.
  d. Point to each *PivotTable* option to see the *Live Preview*.
  e. Choose the option that shows a sum of the employees, the total hours, and the patients (Figure 4-94).
  f. Rename the sheet **PivotTable**.
  g. Drag the **Month** field in the *Rows* area in the *PivotTable Fields* pane out of the pane and into the worksheet.
13. Format a *PivotTable*.
  a. Click cell **C4**.
  b. Click the **Field Settings** button [*PivotTable Tools Analyze* tab, *Active Field* group].
  c. Click **Number Format**.
  d. Choose **Number** as the *Category*.
  e. Select the **Use 1000 Separator (,)** box and set zero decimal places.
  f. Click **OK** to close each dialog box.
  g. Apply the same number format for the "Sum of Patients" field.
  h. Click the **More** button [*PivotTable Tools Design* tab, *PivotTable Styles* group].
  i. Select **Dark Gray, Pivot Style Dark 9**.

  ⬆️ **Alternate** Select **Pivot Style Dark 9**.

1 2 3		A	B	C	D
	3				
	4	Last Name	First Name	Date	Amount
+	8	**Allen Average**			$692
	9	Bashir	Atef	1/1/2016	$635
	10	Bashir	Atef	2/1/2016	$575
	11	Bashir	Atef	3/1/2016	$655
	12	Bashir	Atef	4/1/2016	$655
	13	Bashir	Atef	5/1/2016	$655
	14	Bashir	Atef	6/1/2016	$655
−	15	**Bashir Average**			$638
	16	Gabrys	Elizabeth	1/1/2016	$555
	17	Gabrys	Elizabeth	2/1/2016	$635
	18	Gabrys	Elizabeth	3/1/2016	$765
	19	Gabrys	Elizabeth	4/1/2016	$765
	20	Gabrys	Elizabeth	5/1/2016	$765
	21	Gabrys	Elizabeth	6/1/2016	$765
−	22	**Gabrys Average**			$708
	23	Gomez	Paola	1/1/2016	$845
	24	Gomez	Paola	2/1/2016	$435
	25	Gomez	Paola	3/1/2016	$535
	26	Gomez	Paola	4/1/2016	$535
	27	Gomez	Paola	5/1/2016	$535
	28	Gomez	Paola	6/1/2016	$535
−	29	**Gomez Average**			$570
+	36	**McAllister Average**			$586
−	37	**Grand Average**			$633

4-93 Subtotals added and outline collapsed for two groups

Database			fx	Month						
	A	B	C	D	E	F	G	H	I	J
40	Dec 2015	CT Scan	500	2400	2					
41	Jan 2016	MRI	750	3000	3					
42	Feb 2016	Ultrasonography	750	3000	4					
43	Mar 2016	Angiography	1000	3000	3					
44	Apr 2016	CT Scan	500	2400	3					
45	May 2016	MRI	750	2400	3					
46	Jun 2016	Ultrasonography				Row Labels	Sum of # of Employees	Sum of Total Hours	Sum of Patients	
47	Jul 2016	Angiography				⊞Angiography	43	35400	11250	
48	Aug 2016	CT Scan				⊞CT Scan	44	30000	9250	
49	Sep 2016	MRI				⊞MRI	49	35400	11250	
50	Oct 2016	Ultrasonography				⊞Ultrasonography	50	36600	12250	
51	Nov 2016	Angiography				Grand Total	186	137400	44000	
52	Dec 2016	CT Scan	500	1800	4					
53	Jan 2017	MRI				Formatting	Charts	Totals	**Tables**	Sparklines
54	Feb 2017	Ultrasonography								
55	Mar 2017	Angiography								
56	Apr 2017	CT Scan								
57	May 2017	MRI				Table	PivotTable	PivotTable	PivotTable	PivotTable	More
58	Jun 2017	Ultrasonography								
59	Jul 2017	Angiography				Tables help you sort, filter, and summarize data.				
60	Aug 2017	CT Scan								
61										
62										

4-94 Suggested *PivotTable* choices from the *Quick Analysis* tool

      j.   Select the **Banded Rows** box [*PivotTable Tools Design* tab, *PivotTable Styles Options* group].

      k.   Select the **Banded Columns** box (Figure 4-95).

14. Create and format a
    PivotChart.

      a.   Click the **PivotChart**
           button [*PivotTable Tools
           Analyze* tab, *Tools* group].

      b.   Select **Bar** as the chart
           type and **Stacked Bar** as
           the subtype.

      c.   Click **OK**.

	A	B	C	D
1				
2				
3	Row Labels ▼	Sum of # of	Sum of Total Hours	Sum of Patients
4	Angiography	43	35,400	11,250
5	CT Scan	44	30,000	9,250
6	MRI	49	35,400	11,250
7	Ultrasonography	50	36,600	12,250
8	Grand Total	186	137,400	44,000

4-95 *PivotTable* with new settings

      d.   Position the chart object
           so that its top-left corner is
           at cell **A12**.

      e.   Drag the bottom-right selection handle to reach cell **J30**.

      f.   Click the **More** button [*PivotChart Tools Design* tab, *Chart Styles* group] and choose **Style 8**.

      g.   Click the **Change Colors** button [*PivotChart Tools Design* tab, *Chart Styles* group].

      h.   Select the **Monochromatic Palette 1 Blue-Gray gradient, dark to light** in the *Monochromatic*
           group.

↰ Alternate   Select the **Monochromatic Palette 1** in the *Monochromatic* group. *Excel 2013* users,
select **Color 5** in the *Monochromatic* group.

      i.   Deselect the **# of Employees** box in the *PivotChart* Fields pane (Figure 4-96).
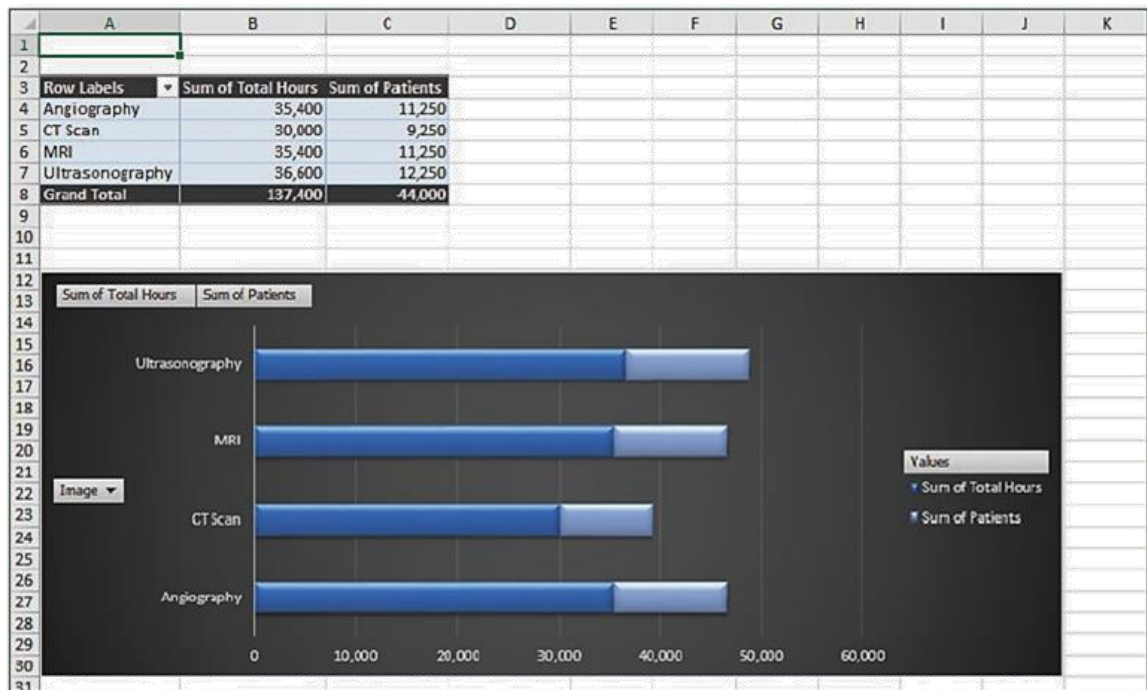
4-96 PivotChart *object*

      j.   Click cell **A1**.

15. Export data using the *Clipboard*.

    Download Resources

    a. Click the **Adv Filter** sheet tab.
    b. Select cells **G4:K14** and click the **Copy** button [*Home* tab, *Clipboard* group].
    c. Open the **ClemensonImaging-04** Word document downloaded from the **Resources** link.
    d. Press **Ctrl+End** to position the insertion point.
    e. Click the arrow with the **Paste** button [*Home* tab, *Clipboard* group] and choose **Paste Special**.
    f. Select **Microsoft Excel Worksheet Object** in the *Paste Special* dialog box.
    g. Select the **Paste link** radio button in the *Paste Special* dialog box and click **OK**.

    IMPORTANT: If you receive an error message similar to **"Excel cannot obtain the data for the {00020830-0000-C000-000000000046} link.",** link.", make sure that you have extracted the **ClemensonImaging-04** Word document from the resources zip folder and open the workbook from the extracted folder, save your *Excel* workbook, and then try again.
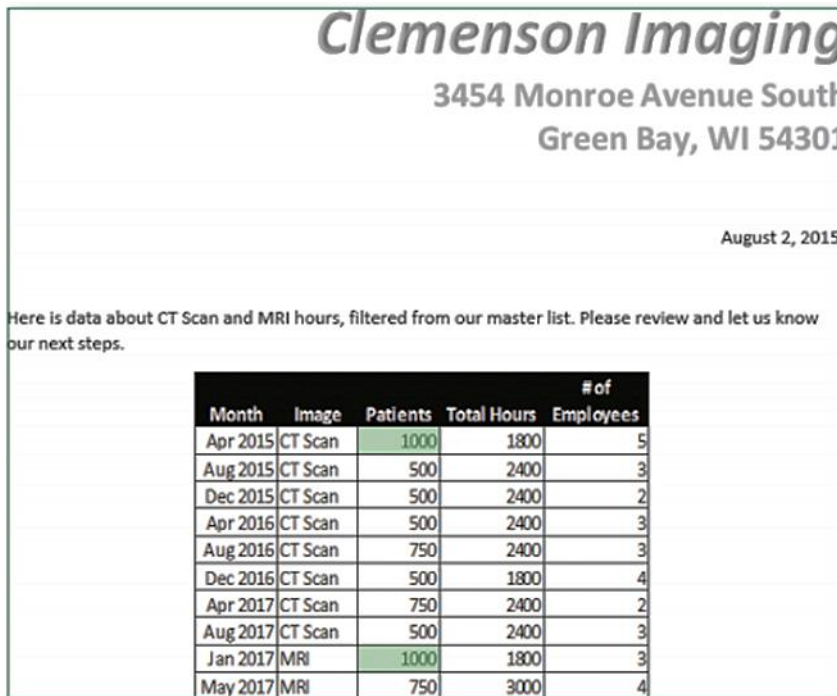
    h. Click the **Center** button [*Home* tab, *Paragraph* group].
    i. Save the Word document as *[your initials] Excel 4-3* in your usual folder (Figure 4-97). **You will not be uploading this file to SIMnet.**
    j. Close Word.

Step 2: Upload & Save

16. Save and close the **ClemensonImaging-04** Excel workbook.

17. Upload and save the **ClemensonImaging-04** Excel workbook.

Step 3: Grade my Project

18. Submit project for grading.

Clemenson Imaging
3454 Monroe Avenue South
Green Bay, WI 54301

August 2, 2015

Here is data about CT Scan and MRI hours, filtered from our master list. Please review and let us know our next steps.

Month	Image	Patients	Total Hours	# of Employees
Apr 2015	CT Scan	1000	1800	5
Aug 2015	CT Scan	500	2400	3
Dec 2015	CT Scan	500	2400	2
Apr 2016	CT Scan	500	2400	3
Aug 2016	CT Scan	750	2400	3
Dec 2016	CT Scan	500	1800	4
Apr 2017	CT Scan	750	2400	2
Aug 2017	CT Scan	500	2400	3
Jan 2017	MRI	1000	1800	3
May 2017	MRI	750	3000	4

4-97 Word document with pasted Excel object