

**Assignment: Use the Excel tools to generate a pie chart and clustered column chart from existing data**

Step	Task
1	<p>Download the <a href="#">Excel Charts and Graphs Student File</a> worksheet to begin.</p> <ul style="list-style-type: none"> <li>- After opening the link above select File -&gt; Download -&gt; Microsoft Excel</li> </ul>
	Create a Pie Chart
2	<ul style="list-style-type: none"> <li>- Highlight L2:M10 on the Sales by Employee sheet (these are contained within the smaller 2023 Annual Sales by Region table)</li> <li>- Insert tab -&gt; Charts group -&gt; Recommended Charts -&gt; All Charts -&gt; Pie -&gt; 3-D Pie -&gt; OK</li> <li>- Once the chart is on the worksheet select it then navigate to Chart Tools tab -&gt; Design -&gt; Location group -&gt; Move Chart -&gt; New Sheet (rename to "Pie") -&gt; OK, the chart should now be on its own sheet</li> </ul>
3	<p>Update the chart colors</p> <ul style="list-style-type: none"> <li>- In the Design tab -&gt; Chart Styles group -&gt; Change Colors -&gt; Change to one of the monochromatic colors <ul style="list-style-type: none"> <li>- You may not want to choose blue as it may make a later step a bit harder to see</li> </ul> </li> </ul>
4	<p>Update Text</p> <ul style="list-style-type: none"> <li>- Click the text box with the "Total Units Sold" title to edit it. Change the title to "Total Units Sold by Region"</li> <li>- Highlight all the title text then in Chart Tools tab -&gt; Format -&gt; WordArt Styles group -&gt; Pick a style</li> </ul>
5	<p>Change Labels</p> <ul style="list-style-type: none"> <li>- Select the entire chart area by clicking in the white space, there should be a plus sign that pops up on the top right.</li> <li>- Click the plus sign and check the box next to "Data Labels". <ul style="list-style-type: none"> <li>- The number of units will populate on each of the pie slices.</li> </ul> </li> </ul>
6	<p>Edit chart elements</p> <ul style="list-style-type: none"> <li>- Remove the legend: Chart Tools tab -&gt; Design -&gt; Chart Layouts group -&gt; Add Chart Element -&gt; Legend -&gt; None</li> <li>OR</li> <li>- Select the chart and click on the + symbol in the upper right and uncheck "Legend"</li> <li>- Chart tools tab -&gt; Format -&gt; Current Selection group -&gt; Dropdown menu -&gt; Series "Total Units Sold" Data Labels -&gt; Format Selection</li> </ul> <p><i>NOTE: This will open a menu pane on the right called "Format Data Labels"</i></p>

	<ul style="list-style-type: none"> <li>- Make sure you are in the Label Options portion of the Format Data Labels menu, if not click on one of the numbers on the pie slices</li> <li>- Check off “Category Name” and “Percentage”, uncheck “Value”</li> <li>- Select the paint bucket button (Fill &amp; Line) -&gt; Fill -&gt; Solid fill -&gt; Pick a fill color that lets you still read the text <ul style="list-style-type: none"> <li>- At this point you should have a pie chart called “Total Units Sold by Region” with color text boxes containing the region names and the percentages. If you have other elements, check back on the previous steps.</li> </ul> </li> </ul>
7	<p>Rotate Pie Chart</p> <ul style="list-style-type: none"> <li>- Click on the white space to change the menu to “Format Chart Area” -&gt; Chart Options dropdown -&gt; Plot Area -&gt; Pentagon button (Effects) -&gt; 3D Rotation -&gt; Change the X rotation until a slice you want is in the front of the chart</li> </ul>
8	<p>“Explode” Pie Slide</p> <ul style="list-style-type: none"> <li>- Click once on the pie to select all (blue dots will appear on the edges of each slice) <ul style="list-style-type: none"> <li>- If you have trouble seeing the blue dots, change the pie chart color</li> </ul> </li> <li>- Click once on the piece rotated to the front in the previous step to select only that slice (blue dots will appear only on that slice)</li> <li>- Format data point -&gt; Paint bucket button (Fill &amp; Line) -&gt; Solid fill -&gt; Change to a contrasting color from the rest of the chart -&gt; Bar graph button (Series Options) -&gt; Increase the point explosion to move the selected slice away from the rest of the chart</li> </ul> <p><i>NOTE: The slice can also be exploded by dragging it away from the rest of the chart</i></p>
	Create a Clustered Column Chart
9	<p>Flash Fill</p> <ul style="list-style-type: none"> <li>- Go back to the “<b>Sales by Employee</b>” sheet</li> <li>- Close the chart formatting menu pane if that is still up</li> <li>- Insert a new column before current Column A (Last Name) <ul style="list-style-type: none"> <li>- Click on the letter A at the top of the column to select the whole column -&gt; Right click on the letter A -&gt; Insert</li> </ul> </li> <li>- In the new cell A1, type “Employee”</li> <li>- In the new cell A2, type “Barry Allen” (this should be the first and last name in cells B2 and C2) and press enter</li> </ul> <p><i>NOTE: Correct spelling is essential, or Excel won’t pick up on the pattern. Capitalization (or lack of) of the first letter of the names does not cause an issue, though it will be repeated.</i></p>

	<ul style="list-style-type: none"> <li>- In cell A3 start typing “Bruce Banner”, after a few letters Excel will pick up on the pattern and complete that cell, as well as flash fill the rest of the cells (the names will come up in a lighter gray color), press the Enter key</li> </ul> <p><i>NOTE: If this does not happen automatically, you can complete the Flash Fill by going to the Home tab &gt; Editing group &gt; Fill tool &gt; Flash Fill</i></p>
10	<p>Select range for chart</p> <ul style="list-style-type: none"> <li>- Highlight A1:A33,</li> <li>- Press and hold the “Ctrl” key then also highlight H1:H33 and L1:L33</li> </ul> <p><i>NOTE: Make sure there are no extra cells highlighted and that all the needed cells are highlighted, or chart will not work properly</i></p>
11	<p>Insert Chart</p> <ul style="list-style-type: none"> <li>- With the three columns highlighted, in the Insert tab -&gt; Charts group -&gt; Recommended Charts</li> <li>- From the options that appear select “Clustered Column”</li> </ul>
12	<p>Edit Chart</p> <ul style="list-style-type: none"> <li>- Select the chart, Chart Tools tab-&gt; Design -&gt; Location group -&gt; Move Chart -&gt; New sheet (name it “Columns”)</li> <li>- Depending on the size of the chart you may or may not see all of the employee names at the bottom. The data is still there even if you can’t see it easily. Widen the chart to view all names if they are missing.</li> </ul>
13	<p>Apply Formatting to Clustered Column</p> <ul style="list-style-type: none"> <li>- Click the text box with “Chart Title” to open the text box, rename the chart “Sales by Employee”</li> <li>- In the Chart Tools tab -&gt; Design -&gt; Chart Styles group -&gt; Pick one of the premade designs</li> <li>- If the design you selected does not include labels above columns add them in Chart Tools tab -&gt; Design -&gt; Chart Layouts group -&gt; Add Chart Element -&gt; Data Labels -&gt; Outside End</li> <li>- Click one of the data labels which will select all of them, Chart Tools tab -&gt; Format -&gt; Current Selection group -&gt; Format Selection -&gt; Format Data Labels pane opens -&gt; Text Options -&gt; Textbox button -&gt; Text Direction -&gt; Rotate all text 90 (or 270) degrees</li> <li>- Click the labels on the shorter bars while the menu pane is still open to turn those horizontal as well</li> <li>- Click on one of the columns to select them all, the pane becomes “Format Data Series”, -&gt; Paint bucket button (Fill &amp; Line) -&gt; Fill -&gt; Solid Fill -&gt; Pick a color</li> </ul>

	<ul style="list-style-type: none"> <li>- Repeat for the smaller bars. You can also change the background color in the same manner by selecting the chart area first (pane will change to "Format Chart Area").</li> </ul>
14	<p>Prepare Sheet for Printing</p> <ul style="list-style-type: none"> <li>- Create a new worksheet called Print, close the Format Shape pane if still open</li> <li>- On the Columns worksheet click on the chart area to select the whole thing, then copy</li> <li>- Paste the chart onto the Print worksheet, then click an empty cell to deselect the chart</li> <li>- On the Pie worksheet, copy the pie chart and paste on the Print worksheet under the columns chart.</li> <li>- Click an empty cell to deselect the pie chart.</li> <li>- In the Page Layout tab -&gt; Page Setup group -&gt; select the Dialog box</li> <li>- In the Page Setup popup make the following adjustments: <ul style="list-style-type: none"> <li>- Page: <ul style="list-style-type: none"> <li>- Orientation: Landscape</li> <li>- Scaling: Fit to: 1 page by 1 page tall</li> </ul> </li> <li>- Margins: <ul style="list-style-type: none"> <li>- Center on page: check off both horizontally and vertically</li> </ul> </li> <li>- Header/Footer: <ul style="list-style-type: none"> <li>- Custom header: <ul style="list-style-type: none"> <li>- Left: Your Name   Middle: "Excel"   Right: Date (middle button that looks like a calendar with a 7, it will populate a placeholder that says "&amp;[Date]")</li> </ul> </li> </ul> </li> <li>- Press OK</li> </ul> </li> <li>- Sheet: In the Print section check off Gridlines</li> <li>- Press Print</li> </ul>

A sample of the print preview of the final result is on the next page. Results will vary slightly depending on color choices.

