

## Project 7 – Pivot Tables & Charting

For this project, we'll leverage the concepts that were learned in Section 8 of the Excel for Project Managers course. Please download the Project 8 spreadsheet located here: <https://www.danriverapmp.com/ms-excel-for-project-managers>

When leveraging Pivot Tables, you first need to define the data table that the Pivot Table will reference. We will first go over this step.

**Step 1:** Within the Project 8 spreadsheet, go to the *Internal Labor* tab and click on cell A1. In order to quickly select the entire sheet, hold down both the *SHIFT* and *CTRL* keys then click the *down arrow* key. While still holding down the *SHIFT* and *CTRL* keys click the *right arrow* key. You should've selected all the data elements as noted below...

	A	B	C	D	E	F	G	H	I
674	P-110	PPM Tool Implementation	Design	20180716	Daniel Rivera	0.5	7.5	USD	2018/07
675	P-110	PPM Tool Implementation	Requirements	20180629	Mary Louise Dey	2	30	USD	2018/06
676	P-110	PPM Tool Implementation	Design	20180622	Mary Louise Dey	2	30	USD	2018/06
677	P-110	PPM Tool Implementation	Build	20180827	Mary Louise Dey	2	30	USD	2018/09
678	P-110	PPM Tool Implementation	Build	20180727	Mary Louise Dey	4	60	USD	2018/07
679	P-110	PPM Tool Implementation	Requirements	20180629	Mary Louise Dey	2	30	USD	2018/06
680	P-110	PPM Tool Implementation	Build	20180727	Mary Louise Dey	4	60	USD	2018/07
681	P-110	PPM Tool Implementation	Test	20180928	Mary Louise Dey	2	30	USD	2018/09
682	P-110	PPM Tool Implementation	Build	20180827	Mary Louise Dey	2	30	USD	2018/09

**Step 2:** With the data still selected, press the *CTRL* button and then *T*. The data range you selected is automatically highlighted in the text box. Do not change this and ensure that the first row featuring the column names is also highlighted as part of the selection. Press *OK*.

	A	B	C	D	E	F	G	H	I
1	<b>Project Number</b>	<b>Project Name</b>	<b>Phase</b>	<b>Posting Date</b>	<b>Employee Name</b>	<b>Hours</b>	<b>Amount</b>	<b>Currency</b>	<b>Fiscal Year/Period</b>
2	P-101	System Decommission	Requirements	20180611	Lex Borga	0.5	38.5	USD	2018/06
3	P-101	System Decommission	Requirements	20180612	Lex Borga	1	77	USD	2018/06
4	P-101	System Decommission	Requirements	20180614	Lex Borga	1.5	115.5	USD	2018/06
5	P-101	System Decommission	Requirements	20180628	Lex Borga	2.5	192.5	USD	2018/06
6	P-101	System Decommission	Requirements	20180809	Lex Borga	1.5	115.5	USD	2018/08
7	P-101	System Decommission	Requirements			1	77	USD	2018/08
8	P-101	System Decommission	Requirements			3.5	269.5	USD	2018/06
9	P-101	System Decommission	Requirements			1	77	USD	2018/06
10	P-101	System Decommission	Requirements			1	77	USD	2018/07
11	P-101	System Decommission	Requirements			1	77	USD	2018/08
12	P-101	System Decommission	Requirements			1	77	USD	2018/08
13	P-101	System Decommission	Requirements			1	77	USD	2018/06
14	P-101	System Decommission	Requirements			1	77	USD	2018/06

Create Table

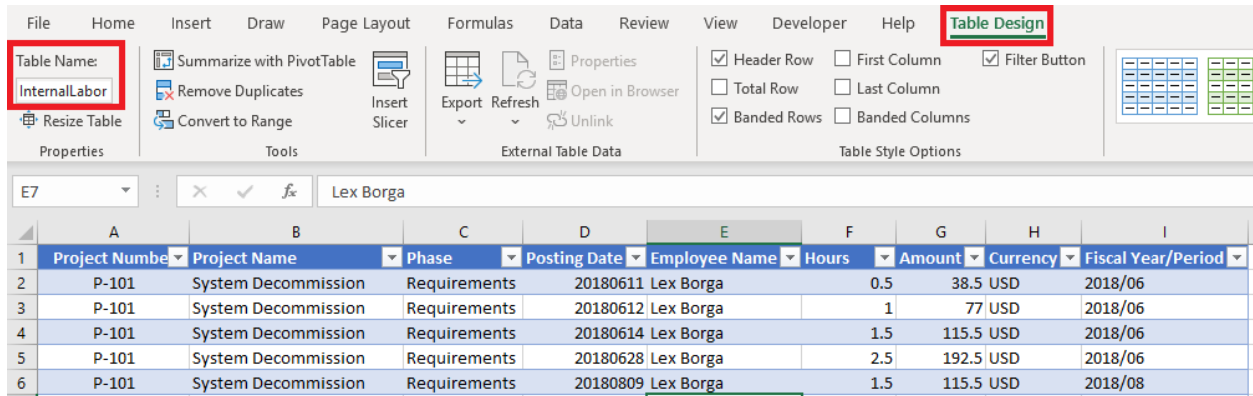
Where is the data for your table?

My table has headers

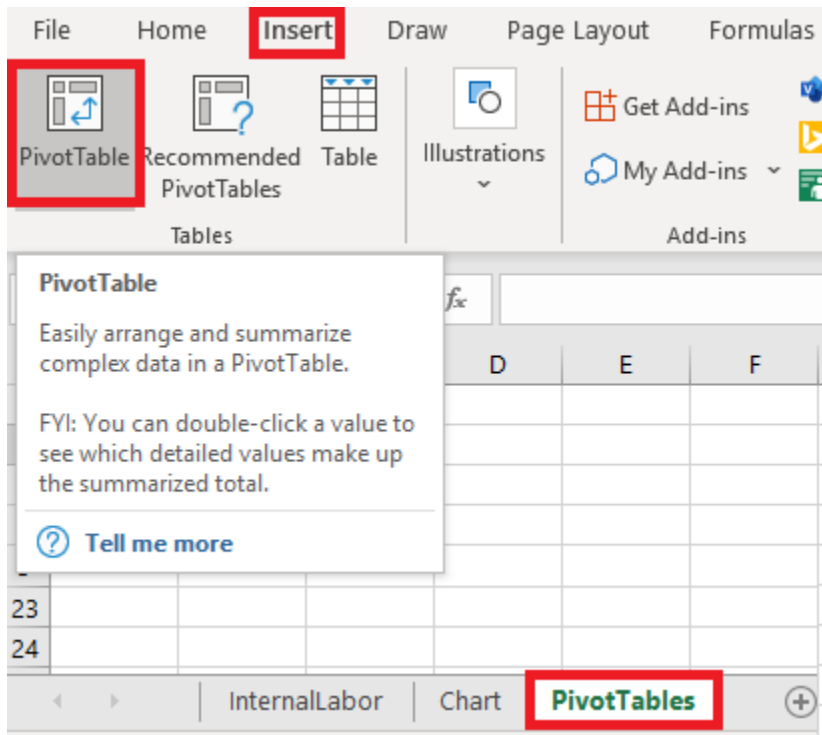
OK Cancel

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**Step 3:** You will now notice that the data range has each alternate row highlighted by a color. In this case, the rows have been highlighted in blue. Another thing that has changed is that now there is a *Table Design* menu available. With this menu selected, go to the *Properties* group and enter *InternalLabor* as the name of the Table. This name will be the name of this data source that you will later reference when you build your pivot table.

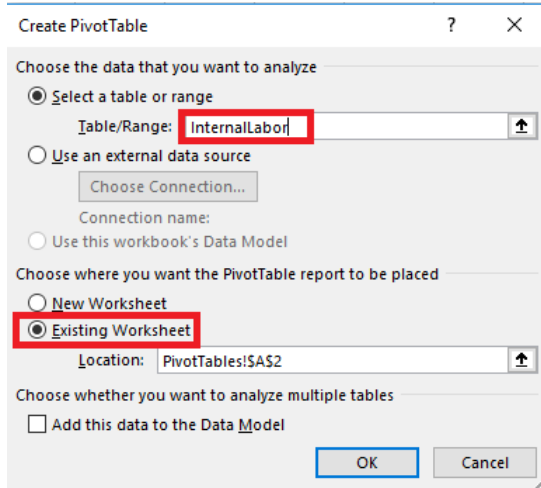


**Step 4:** Go to the *Pivot Tables* tab and select cell A2. Select the *Pivot Table* icon from the *Insert* menu.



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**Step 5:** In the Create Pivot Table dialogue box, enter *InternalLabor* as the name of the table range. This is where it was important to give your selected data a customized name. You can select *Existing Worksheet* so that the pivot table will be inserted into the current worksheet starting at cell A2 (indicated in the *Location* text box). Press OK.



**Step 6:** You will now notice that the Pivot Table appears with a Pivot Table field selector on the right of the screen. Also, at the top, you will notice two new menus – Pivot Table Analyze and Design. Within the Pivot Table field selection box, select the following fields: Project Number, Project Name, Phase, Employee Name, Amount, and Fiscal Year / Period. You should get the image below. On thing we want to change is to list the months highlighted in Red on the left to appear as Columns and not part of the row data.

	A	B	C	D	E	F	G
1							
2	Row Labels	Sum of Amount					
3	People Soft Integration	21348.25					
4	P-105	21348.25					
5	Build	18114.25					
6	2018/01	6160					
7	Daniel Rivera	6160					
8	2018/02	3734.5					
9	Daniel Rivera	3734.5					
10	2018/03	6583.5					
11	Daniel Rivera	6583.5					
12	2018/04	1636.25					
13	Daniel Rivera	1636.25					
14	Deployment	231					
15	2018/05	231					
16	Daniel Rivera	231					
17	Test	3003					
18	2018/04	1193.5					
19	Daniel Rivera	1193.5					
20	2018/05	1809.5					
21	Daniel Rivera	1809.5					
22	PPM Tool Implementation	25112.25					
23	P-110	25112.25					
24	Build	7416					

PivotTable Fields	
Choose fields to add to report:	
Search	
<input checked="" type="checkbox"/> Project Number	
<input checked="" type="checkbox"/> Project Name	
<input checked="" type="checkbox"/> Phase	
<input type="checkbox"/> Posting Date	
<input checked="" type="checkbox"/> Employee Name	
<input type="checkbox"/> Hours	
<input checked="" type="checkbox"/> Amount	
<input type="checkbox"/> Currency	
Drag fields between areas below:	
Filters	Columns
Rows	Σ Values
Project Name	Sum of Amount
Project Num...	
Phase	

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**Step 7:** If you look at the *Pivot Table Fields* box, go to the *Rows* box where the fields are listed for rows. Click and drag the *Fiscal Year/Period* field up and to the right and drop it within the *Columns* box. The Year/Period Columns are automatically generated.

Sum of Amount	2018/01	2018/02	2018/03	2018/04	2018/05	2018/06	2018/07	2018/08	2018/09	2018/10	Grand Total
<b>People Soft Integration</b>	6160	3734.5	6583.5	2829.75	2040.5						21348.25
<b>P-105</b>	6160	3734.5	6583.5	2829.75	2040.5						21348.25
Build	6160	3734.5	6583.5	1636.25							18114.25
Daniel Rivera	6160	3734.5	6583.5	1636.25							18114.25
Deployment					231						231
Daniel Rivera					231						231
Test				1193.5	1809.5						3003
Daniel Rivera				1193.5	1809.5						3003
<b>PPM Tool Implementation</b>					5513	7208.5	5458.5	6482.25	450		25112.25
<b>P-110</b>					5513	7208.5	5458.5	6482.25	450		25112.25
Build					2571.5	3658.5	1186				7416
Dan Romero							30				30
Daniel Rivera					2271.5	1963.5	616				4851
Dave Roberts					120	180	30				330
Ludvig Luger					60	552.5					612.5
Mary Louise Dey					120	962.5	510				1592.5
Deployment					30		300				330
Dan Romero							60				60
Dave Roberts							60				60
Lex Borga					30						30
Ludvig Luger							180				180

**Step 8:** Select all data between cells *B4* through *L71*. From the *Home* menu go to the *Number* section and click the \$ icon to make the cells currency. Then, click on the decimal reduction icon indicated below to remove decimal places.

Sum of Amount	2018/01	2018/02	2018/03	2018/04	2018/05	2018/06	2018/07	2018/08	2018/09
<b>People Soft Integration</b>	\$ 6,160	\$ 3,735	\$ 6,584	\$ 2,830	\$ 2,041				
<b>P-105</b>	\$ 6,160	\$ 3,735	\$ 6,584	\$ 2,830	\$ 2,041				
Build	\$ 6,160	\$ 3,735	\$ 6,584	\$ 1,636					
Daniel Rivera	\$ 6,160	\$ 3,735	\$ 6,584	\$ 1,636					
Deployment					\$ 231				
Daniel Rivera					\$ 231				
Test				\$ 1,194	\$ 1,810				
Daniel Rivera				\$ 1,194	\$ 1,810				
<b>PPM Tool Implementation</b>					\$ 5,513	\$ 7,209	\$ 5,459	\$ 6,482	

Now, we want to work with charts leveraging the pivot table that we just created. We will first generate the chart for our pivot table and then generate a chart for a general data set that is not part of a pivot table.

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**Step 9:** Firstly, from the *PivotTable Analyze* menu, go to the *Show* section and deselect *Field List*. By doing this, the Field selection box will disappear. Next, go to the *Column Labels* drop-down and select only Jan thru Jun of 2018 to do a mid-year report. What we want to do here is to give more room to the right of the spreadsheet to insert our chart.

The screenshot shows the Excel PivotTable Analyze ribbon with the 'Field List' button highlighted in red. Below the ribbon, a PivotTable is displayed with 'Column Labels' selected in the field list. The PivotTable data is as follows:

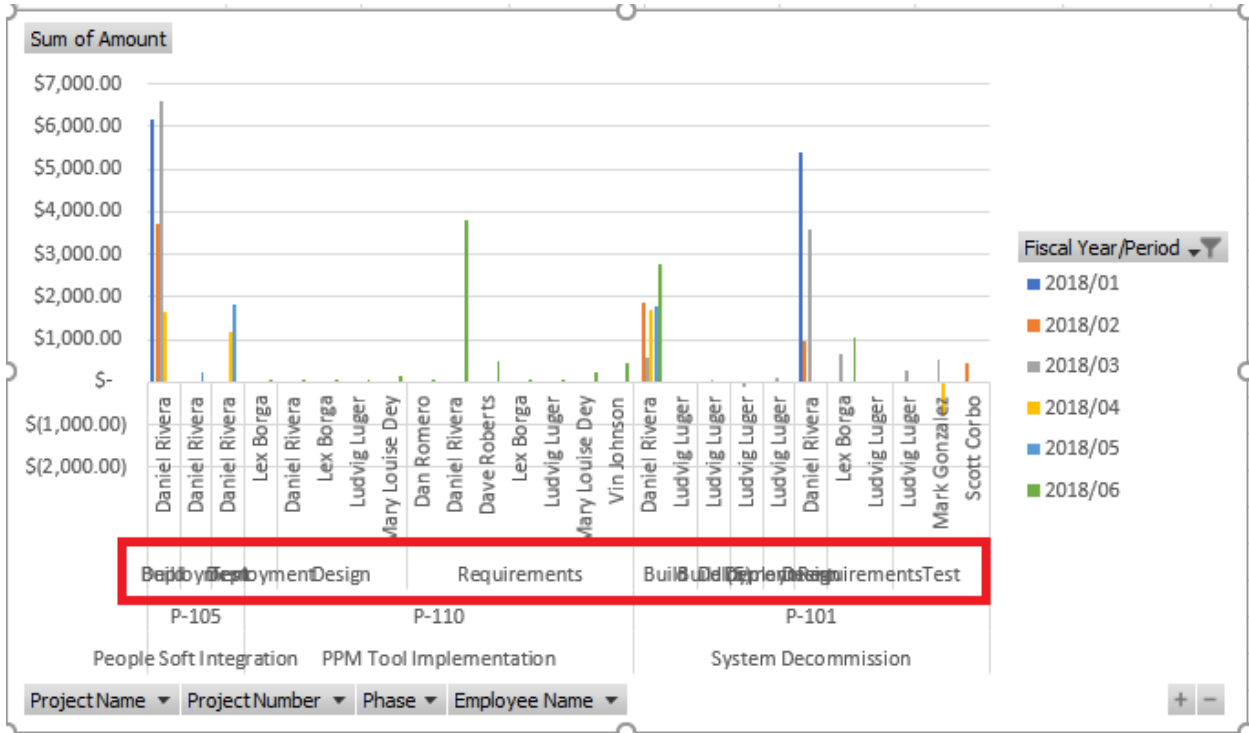
Row Labels	2018/02	2018/03	2018/04	2018/05	2018/06	2018/07	2018/08	2018/09	2018/10	Grand Total
Sum of Amount	\$ 3,734.50	\$ 6,583.50	\$ 2,829.75	\$ 2,040.50						\$ 21,348.25
2018/01	\$ 3,734.50	\$ 6,583.50	\$ 2,829.75	\$ 2,040.50						\$ 21,348.25
2018/02	\$ 3,734.50	\$ 6,583.50	\$ 1,636.25							\$ 18,114.25
2018/03	\$ 3,734.50	\$ 6,583.50	\$ 1,636.25							\$ 18,114.25
2018/04				\$ 231.00						\$ 231.00
2018/05				\$ 231.00						\$ 231.00
2018/06				\$ 1,193.50	\$ 1,809.50					\$ 3,003.00
2018/07				\$ 1,193.50	\$ 1,809.50					\$ 3,003.00
2018/08						\$ 5,513.00	\$ 7,208.50	\$ 5,458.50	\$ 6,482.25	\$ 450.00
2018/09						\$ 5,513.00	\$ 7,208.50	\$ 5,458.50	\$ 6,482.25	\$ 450.00
2018/10						\$ 2,571.50	\$ 3,658.50	\$ 1,186.00		\$ 7,416.00
2018/11								\$ 30.00		\$ 30.00
2018/12						\$ 2,271.50	\$ 1,963.50	\$ 616.00		\$ 4,851.00
2018/13						\$ 120.00	\$ 180.00	\$ 30.00		\$ 330.00
2018/14						\$ 60.00	\$ 552.50			\$ 612.50
2018/15						\$ 120.00	\$ 962.50	\$ 510.00		\$ 1,592.50
2018/16						\$ 30.00		\$ 300.00		\$ 330.00

**Step 10:** From the *Pivot Table Analyze* menu, select the *Pivot Chart* icon. When the *Insert Chart* dialogue appears, select the *Column* option to show a Column bar.

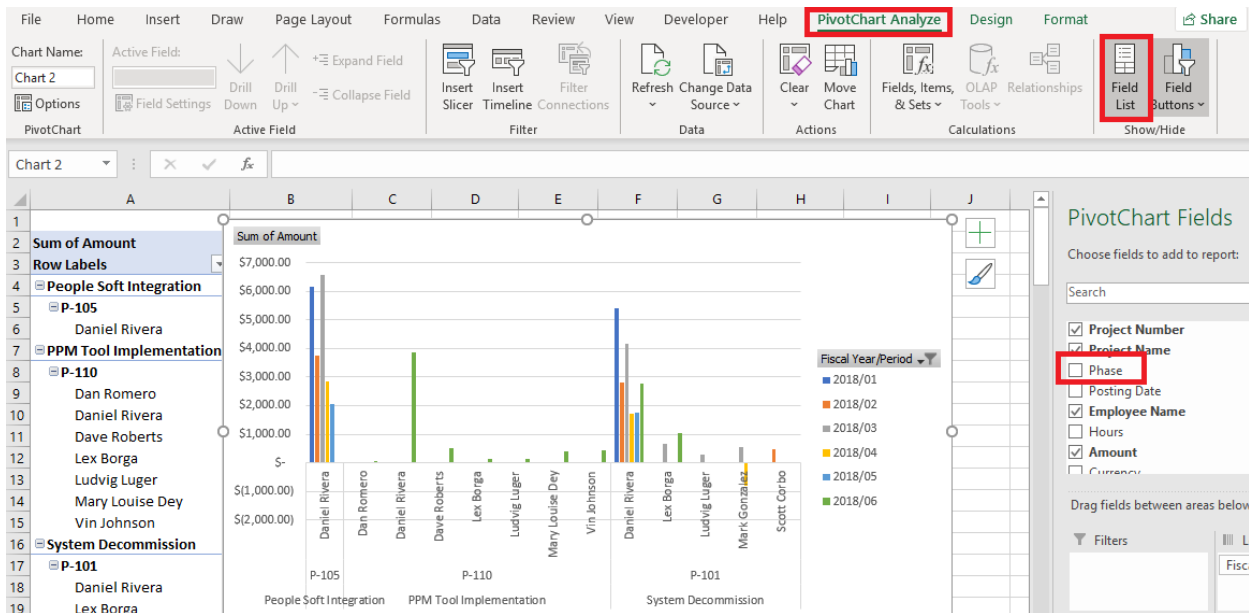
The screenshot shows the Excel PivotTable Analyze ribbon with the 'PivotChart' button highlighted in red. Below the ribbon, the 'Insert Chart' dialog box is open, showing various chart types. The 'Column' chart type is selected and highlighted in red. The dialog also shows a preview of a 'Clustered Column' chart.

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After performing the previous step, you will get the image below. One thing we have noticed is that the Phase descriptions are clashing against each other and appearing as jumbled text. We are not interested in listing the Phases anyway as the overall cost per month is only what interests us.



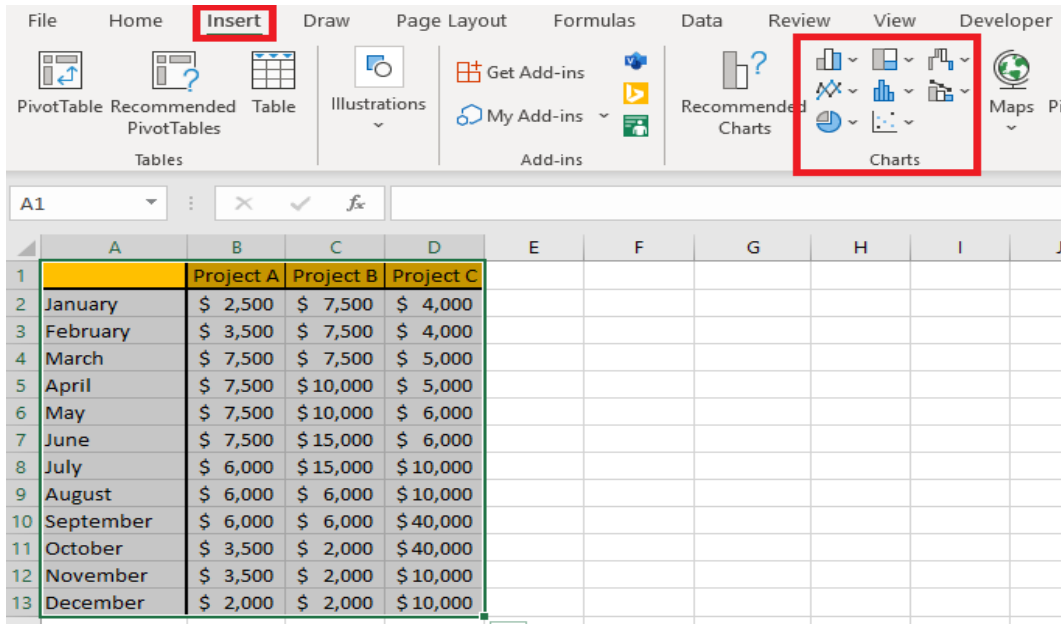
**Step 11:** From the *PivotChart Analyze* menu click *Field List*. With the field list box, unselect the *Phase* field. To your left, the Pivot Chart will become clearer where the labels are along the X-axis. With the chart still selected, move it to the right or below the pivot table as you see fit.



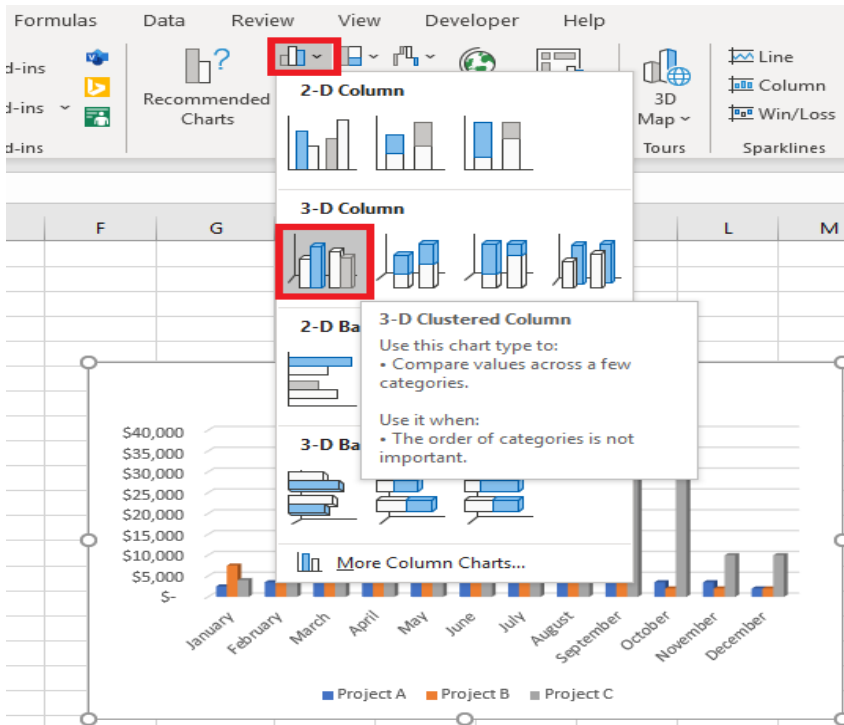
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Finally, we will generate a chart for regular cell range data and not for a pivot table.

**Step 12:** At the bottom of the workbook, select the *Chart* tab then select the data set from cells *A1* to *D13*. From the *Insert* menu, you will notice the various charting options within the *Charts* group. Feel free to play around with each type of chart to see which works best for you.

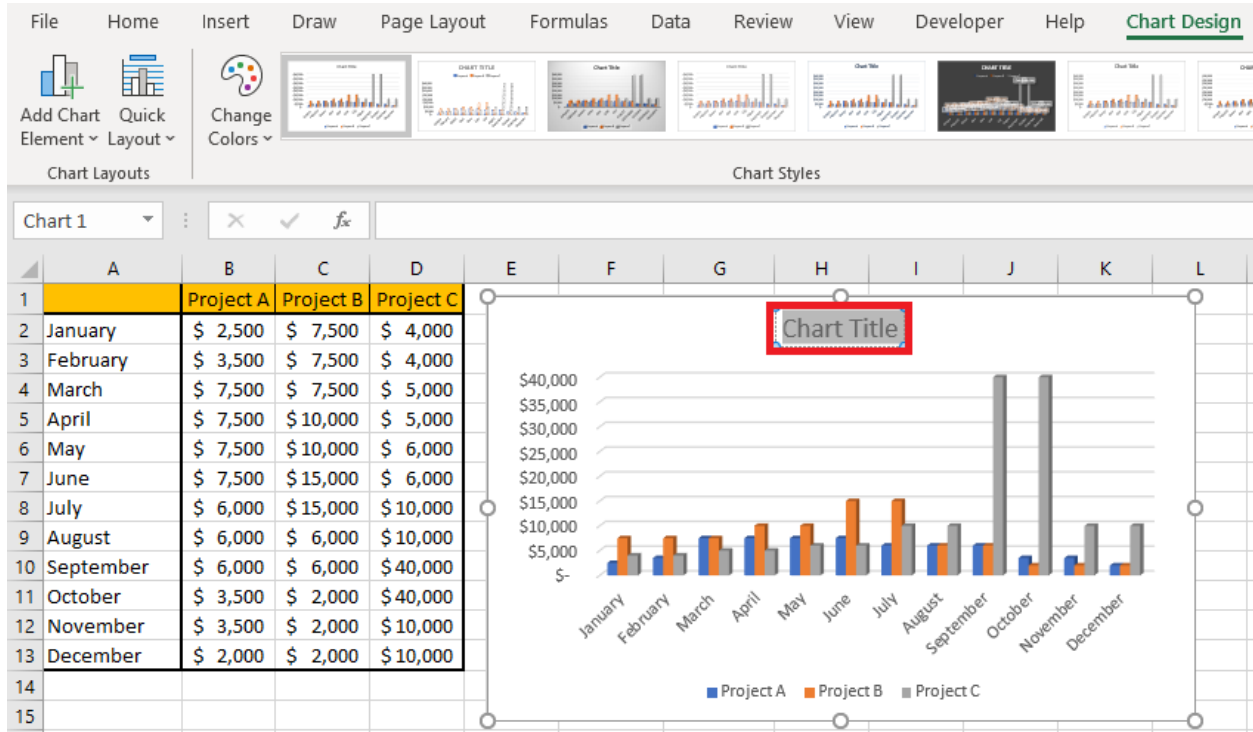


**Step 13:** Select the *Line Chart* icon and a drop-down appears with the various options for line charts. Within the *3D Column* section, select the *3D Clustered Column* option.



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**Step 14:** When the chart is created reposition the chart to your liking. Within the chart the title of the chart is a generic label as highlighted in *red* below. You can double-click within this label to activate it and you can change the name of this chart to your liking.



That concludes this project. Please feel free to play around with dragging around the data fields within the Pivot Table fields box to see what effect your actions have. If you have questions, please reach me leveraging the contact box at:

<https://www.danriverapmp.com/ms-excel-for-project-managers>