

Practical 4

1. Open your textbook on p.67 at the **Restaurant** file.
2. On the computer, open the **Restaurant** file on ClickUP in the **Data files for Practicals** folder.

The aim of the first part of your practical this week is to show you how Excel 2010 PivotTable Report can be used to construct a Cross tabulation. The instructions in this practical are the same as the instructions on p.70 in the textbook, but a few more functions are discussed in the practical.

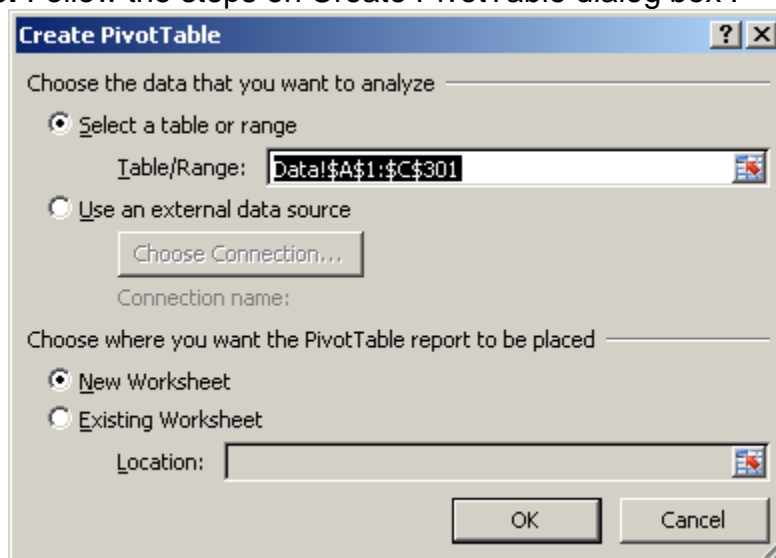
Apply Tools: To use the PivotTable report to create a cross tabulation, we need to perform 3 tasks:

- Display the initial PivotTable Field List and PivotTable Report
 - Set up the PivotTable Field List
 - Finalize the PivotTable Report
-
- **Display the initial PivotTable Field List and PivotTable Report:**

Step 1. Click the **Insert** tab on the Ribbon.

Step 2. In **Tables** group click the icon above the word PivotTable.

Step 3. Follow the steps on Create PivotTable dialog box :



Click **OK**

Figure 6.1

The resulting PivotTable Field List and PivotTable Report are shown in Figure 6.2.

- Set up the **PivotTable Field List**:

Step 1. In the **PivotTable Field List**, go to **Choose Fields to add to report**.

Drag the **Quality Rating** field to the **Row Labels** area.

Drag the **Meal Price** field to the **Column Labels** area.

Drag the **Restaurant** field to the **Values** area.

Step 2. Click on **Sum of Restaurant** in the **Values** area.

Step 3. Click **Value Field Settings** from the list of options that appear.

Step 4. When the Value Field Settings dialog appears,
Under **Summarize Value Field by**, choose **Count**.
Click **OK**

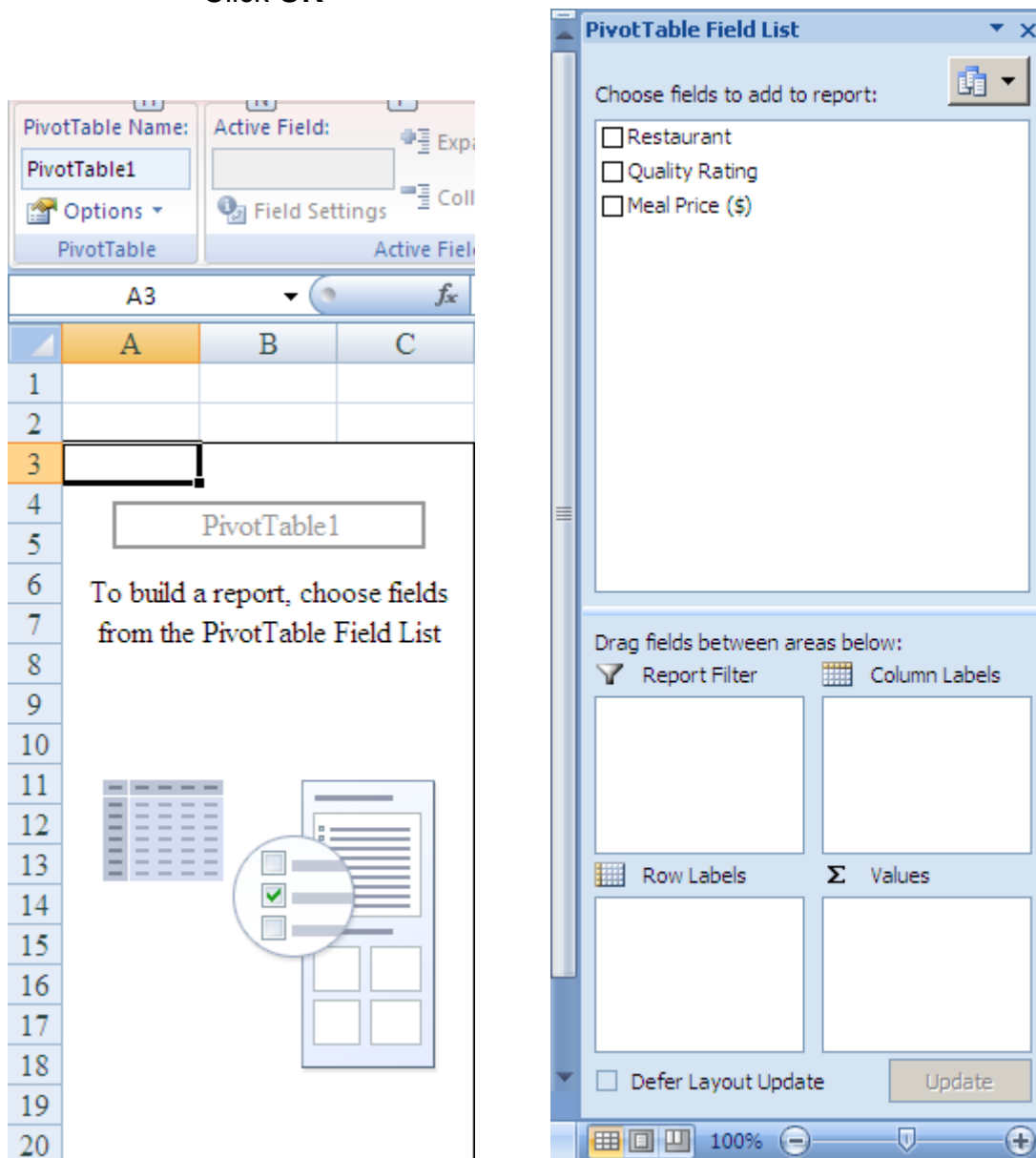


Figure 6.2

Fig. 6.3 shows a part (certain columns are hidden) of the PivotTable worksheet as it now appears.

	A	B	C	D	E	F	G	AL	AM	AN	
1											
2											
3	Count of Restaurant Column Labels										
4	Row Labels		10	11	12	13	14	15	47	48	Grand Total
5	Excellent				1			2	2		66
6	Good		6	4	3	3	2	4			84
7	Very Good		1	4	3	5	6	1		1	150
8	Grand Total		7	8	6	9	8	5	2	3	300

Figure 6.3

- **Finalize the PivotTable Report:** Group the columns representing meal prices and place the row labels for quality rating in the proper order. Follow the following steps:

Step 1. Right-click in cell B4 or any other cell containing meal prices.

Step 2. Choose **Group** from the list of options that appears.

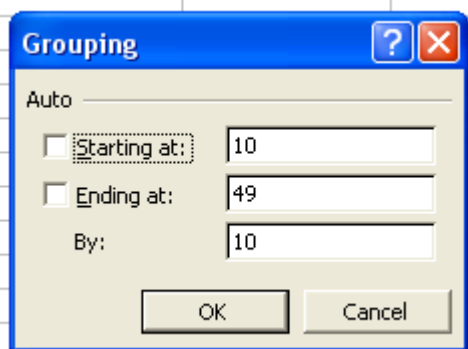
Step3. When the **Grouping** dialog box appears,

Enter 10 in the **Starting at** box

Enter 49 in the **Ending at** box

Enter 10 in the **By** box

Click **OK**



Step 4. Right click on **Excellent** in cell A5

Step 5. Choose **Move** and click **Move “Excellent” to End.**

The revised PivotTable is shown in Figure 6.7

	A	B	C	D	E	F
1						
2						
3	Count of Restaurant	Meal Price (
4	Quality Rating	10-19	20-29	30-39	40-49	Grand Total
5	Good	42	40	2		84
6	Very Good	34	64	46	6	150
7	Excellent	2	14	28	22	66
8	Grand Total	78	118	76	28	300

Figure 6.7

Redo this Exercise and choose row percentages as the data shown in the table. Your PivotTable should look like this:

	A	B	C	D	E	F
1						
2						
3	Count of Restaurant	Meal Price (\$)				
4	Quality Rating	10-19	20-29	30-39	40-49	Grand Total
5	Good	50.00%	47.62%	2.38%	0.00%	100.00%
6	Very Good	22.67%	42.67%	30.67%	4.00%	100.00%
7	Excellent	3.03%	21.21%	42.42%	33.33%	100.00%
8	Grand Total	26.00%	39.33%	25.33%	9.33%	100.00%

Redo the Exercise and choose column percentages as the data shown in the table. Your PivotTable should look like this:

	A	B	C	D	E	F
1						
2						
3	Count of Restaurant	Meal Price (\$)				
4	Quality Rating	10-19	20-29	30-39	40-49	Grand Total
5	Good	53.85%	33.90%	2.63%	0.00%	28.00%
6	Very Good	43.59%	54.24%	60.53%	21.43%	50.00%
7	Excellent	2.56%	11.86%	36.84%	78.57%	22.00%
8	Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%

Exercise P1

1. Open your textbook on p.74 at the **Crosstab2** file.
2. On the computer, open the **Crosstab2** file on ClickUP in the **Data files for Practicals** folder.
3. Answer Exercise 28 on p.74 by making use of Excel 2010. Check your answers on p.957 - 958.

Example P2: Calculating Factorials:

Calculate 5!:

Type the formula **=FACT(number)** into cell A1, press Enter:

Formula Worksheet:

	A	B
1	=FACT(5)	
2		

Value Worksheet:

	A	B
1	120	
2		

Example P3: Calculating Combinations:

Calculate C_2^5 :

Type the formula **=COMBIN(N,n)** into cell A1, press Enter:

Formula Worksheet:

	A	B
1	=COMBIN(5,2)	
2		

Value Worksheet:

	A	B
1	10	
2		

Example P4: Calculating Permutations:

Calculate P_2^5 :

Type the formula **=PERMUT(N,n)** into cell A1, press Enter:

Formula Worksheet:

	A	B
1	=PERMUT(5,2)	
2		

Value Worksheet:

	A	B
1	20	
2		