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Create and modify tables

Table references

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Managing large workbooks

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Exercise: Using table references

Note: You can pass this course and all graded assessments without access to the downloadable version of Excel.

How to complete this exercise

To complete this exercise, you will need access to Microsoft 365 Excel.

Note: Keep in mind that if you are using free Office for the web or another version of the Microsoft 365 Excel application some features covered in this exercise may not be available.

Free Office for the web

If you do not have access to Microsoft 365 Excel, you can use Free Office for the web. This version of Office allows you to view and edit files in apps like Word, Excel, and PowerPoint. This free service is available to anyone with a Microsoft account.

Access Microsoft Account

[Log in to your Microsoft account.](#) Type the email, phone number, or Skype sign-in that you use for other services (Outlook, Office, etc.), then select Next. If you don't have a Microsoft account, you can select No account? Create one!

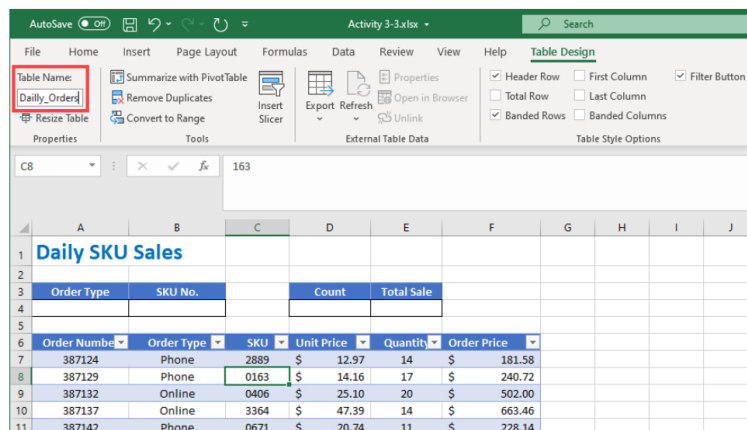
Let's get started!

You have been asked to create a workbook to analyze the daily SKU sales, by SKU number, and by order type. To complete this task, you decide to use database functions with structured references.

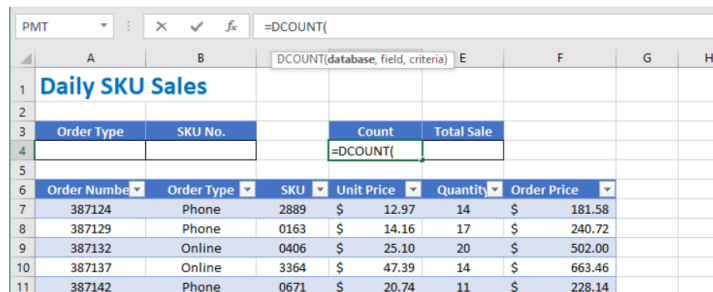
1. Click on the link below to open the Microsoft Excel exercise document you can use to complete this exercise.

[Exercise: Using table references](#)

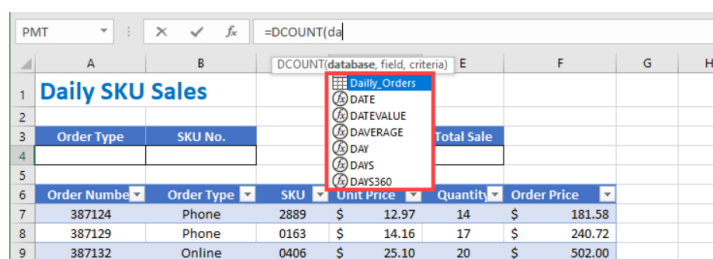
2. First select the table, then click **Table Design**, and type **"Daily_Orders"** in the Table Name field:



3. Press **Enter** to update the table name, then select cell **D4** and type **"=DCOUNT(""** in the Formula Bar:



4. Now begin typing the table name, **"Daily_Orders"** to display table name suggestions:



10	387137	Online	3364	\$	47.39	14	\$	663.46
11	387142	Phone	0671	\$	20.74	11	\$	228.14

5. With the **Daily_Orders** table highlighted, press **Tab** to accept the suggestion:

PMT		=DCOUNT(Daily_Orders					
A	B	DCOUNT(database, field, criteria)		E	F	G	H
Daily SKU Sales							
Order Type	SKU No.	Count	Total Sale				
		y_Orders					
Order Number	Order Type	SKU	Unit Price	Quantity	Order Price		
387124	Phone	2889	\$ 12.97	14	\$	181.58	
387129	Phone	0163	\$ 14.16	17	\$	240.72	
387132	Online	0406	\$ 25.10	20	\$	502.00	
387137	Online	3364	\$ 47.39	14	\$	663.46	
387142	Phone	0671	\$ 20.74	11	\$	228.14	

6. Next, type an open square bracket ([]) to show suggestions for table elements. Use the arrow key to select **#All** from the list, then press **Tab** to accept:

PMT		=DCOUNT(Daily_Orders[
A	B	DCOUNT(database, field, criteria)		E	F	G	H
Daily SKU Sales							
Order Type	SKU No.	Count	Total Sale				
		y_Orders					
Order Number	Order Type	SKU	Unit Price	Quantity	Order Price		
387124	Phone	2889	\$ 12.97	14	\$	181.58	
387129	Phone	0163	\$ 14.16	17	\$	240.72	
387132	Online	0406	\$ 25.10	20	\$	502.00	
387137	Online	3364	\$ 47.39	14	\$	663.46	
387142	Phone	0671	\$ 20.74	11	\$	228.14	

7. You can now type a closed square bracket (]) and a comma (,) to complete the database argument:

PMT		=DCOUNT(Daily_Orders[#All],					
A	B	DCOUNT(database, field, criteria)		E	F	G	H
Daily SKU Sales							
Order Type	SKU No.	Count	Total Sale				
		y_Orders					
Order Number	Order Type	SKU	Unit Price	Quantity	Order Price		
387124	Phone	2889	\$ 12.97	14	\$	181.58	
387129	Phone	0163	\$ 14.16	17	\$	240.72	
387132	Online	0406	\$ 25.10	20	\$	502.00	
387137	Online	3364	\$ 47.39	14	\$	663.46	
387142	Phone	0671	\$ 20.74	11	\$	228.14	

8. To define the field argument, click the table header **Order Number.** Excel enters the structured reference automatically:

A6		=DCOUNT(Daily_Orders[#All],Daily_Orders[Order Number])					
A	B	DCOUNT(database, field, criteria)		E	F	G	H
Daily SKU Sales							
Order Type	SKU No.	Count	Total Sale				
		y_Orders					
Order Number	Order Type	SKU	Unit Price	Quantity	Order Price		
387124	Phone	2889	\$ 12.97	14	\$	181.58	
387129	Phone	0163	\$ 14.16	17	\$	240.72	
387132	Online	0406	\$ 25.10	20	\$	502.00	
387137	Online	3364	\$ 47.39	14	\$	663.46	
387142	Phone	0671	\$ 20.74	11	\$	228.14	

9. To define the criteria argument, and complete the formula, first type a comma (,) to move to the next argument, then select the range **A3:B4**:

A3		=DCOUNT(Daily_Orders[#All],Daily_Orders[Order Number],A3:B4					
A	B	DCOUNT(database, field, criteria)		E	F	G	H
Daily SKU Sales							
Order Type	SKU No.	Count	Total Sale				
		4					
Order Number	Order Type	SKU	Unit Price	Quantity	Order Price		
387124	Phone	2889	\$ 12.97	14	\$	181.58	
387129	Phone	0163	\$ 14.16	17	\$	240.72	
387132	Online	0406	\$ 25.10	20	\$	502.00	
387137	Online	3364	\$ 47.39	14	\$	663.46	
387142	Phone	0671	\$ 20.74	11	\$	228.14	

10. Press the **F4** key to make this an absolute reference, then press **Enter**:

A3		=DCOUNT(Daily_Orders[#All],Daily_Orders[Order Number],\$A\$3:\$B\$4					
A	B	DCOUNT(database, field, criteria)		E	F	G	H
Daily SKU Sales							
Order Type	SKU No.	Count	Total Sale				
		\$A\$3:\$B\$4					
Order Number	Order Type	SKU	Unit Price	Quantity	Order Price		
387124	Phone	2889	\$ 12.97	14	\$	181.58	
387129	Phone	0163	\$ 14.16	17	\$	240.72	
387132	Online	0406	\$ 25.10	20	\$	502.00	
387137	Online	3364	\$ 47.39	14	\$	663.46	
387142	Phone	0671	\$ 20.74	11	\$	228.14	

7	387124	Phone	2889	\$	12.97	14	\$	181.58			
8	387129	Phone	0163	\$	14.16	17	\$	240.72			
9	387132	Online	0406	\$	25.10	20	\$	502.00			
10	387137	Online	3364	\$	47.39	14	\$	663.46			
11	387142	Phone	0671	\$	20.74	11	\$	228.14			

11. You will see that the formula returns the value 99, as there are 99 rows in the table, and no criteria have been entered:

	A	B	C	D	E	F	G	H
1	Daily SKU Sales							
2								
3	Order Type	SKU No.		Count	Total Sale			
4				99				
5								
6	Order Number	Order Type	SKU	Unit Price	Quantity	Order Price		
7	387124	Phone	2889	\$ 12.97	14	\$ 181.58		
8	387129	Phone	0163	\$ 14.16	17	\$ 240.72		
9	387132	Online	4066	\$ 25.10	20	\$ 502.00		
10	387137	Online	3364	\$ 47.39	14	\$ 663.46		
11	387142	Phone	0671	\$ 20.74	11	\$ 228.14		

12. Now type “Online” in cell A4. You will see that 50 of the order types were Online:

	A	B	C	D	E	F	G	H
1	Daily SKU Sales							
2								
3	Order Type	SKU No.		Count	Total Sale			
4	Online			50				
5								
6	Order Number	Order Type	SKU	Unit Price	Quantity	Order Price		
7	387124	Phone	2889	\$ 12.97	14	\$ 181.58		
8	387129	Phone	0163	\$ 14.16	17	\$ 240.72		
9	387132	Online	0406	\$ 25.10	20	\$ 502.00		
10	387137	Online	3364	\$ 47.39	14	\$ 663.46		
11	387142	Phone	0671	\$ 20.74	11	\$ 228.14		

13. Type the SKU number “0406” in cell **B4**. While you would expect the count value to change, it has not:

	A	B	C	D	E	F	G	H
1	Daily SKU Sales							
2								
3	Order Type	SKU No.		Count	Total Sale			
4	Online	0406		50				
5								
6	Order Number	Order Type	SKU	Unit Price	Quantity	Order Price		
7	387124	Phone	2889	\$ 12.97	14	\$ 181.58		
8	387129	Phone	0163	\$ 14.16	17	\$ 240.72		
9	387132	Online	0406	\$ 25.10	20	\$ 502.00		
10	387137	Online	3364	\$ 47.39	14	\$ 663.46		
11	387142	Phone	0671	\$ 20.74	11	\$ 228.14		

14. This is because the heading in cell B3, "SKU No.," does not match the column name in your table. Change the text in cell **B3** to "**SKU**" to match the column name. Now you will see that the count value has changed:

	A	B	C	D	E	F	G	H
1	Daily SKU Sales							
2								
3	Order Type	SKU		Count	Total Sale			
4	Online	0406		2				
5								
6	Order Number	Order Type	SKU	Unit Price	Quantity	Order Price		
7	387124	Phone	2889	\$ 12.97	14	\$ 181.58		
8	387129	Phone	0163	\$ 14.16	17	\$ 240.72		
9	387132	Online	0406	\$ 25.10	20	\$ 502.00		
10	387137	Online	3364	\$ 47.39	14	\$ 663.46		
11	387142	Phone	0671	\$ 20.74	11	\$ 228.14		

15. You can now select cell **E4** and follow the same steps, but this time use the **DSUM** function and use the table header **“Order Price”** for the field argument:

=DSUM(Daily_Orders[#All],Daily_Orders[Order Price],A\$3:B\$4)

16. You will now see the sum of orders where SKU 0406 had an order type of Online:

Daily SKU Sales						
Order Type	SKU	Count	Total Sale			
Online	0406	2	\$ 978.90			
Order Number	Order Type	SKU	Unit Price	Quantity	Order Price	
387124	Phone	2889	\$ 12.97	14	\$ 181.58	
387129	Phone	0163	\$ 14.16	17	\$ 240.72	
387132	Online	0406	\$ 25.10	20	\$ 502.00	
387137	Online	3364	\$ 47.39	14	\$ 663.46	
387142	Phone	0671	\$ 20.74	11	\$ 278.14	

17. Save the current workbook as Activity 3-3 Complete and then close Microsoft 365 Excel to complete this

exercise.

18. Now, you can check out an example of a completed document in the link below:

[Completed exercise: Using table references](#) 

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