Highline College - Busn 216: Computer Applications for Business (Fun and Power with Computers) Office 2016 Video #40: Access 2016: Office 2016 Video #40: Access 2016: Building Queries in Access (15 Examples)

Topics Covered in Video:

- 1. Define Data Analysis: Raw Data → into Useful Information
- 2. Define Query: Ask a question of the raw data. The answer is the useful information used for decision making.



ii. In the Show Tables dialog box double-click the tables that you want to ask a question of, then click the Close Button

Tables Queries Both	Double-click any tables you want.
Products SupplierData	
	 Then click Close

iii. Move and / or expand the Table Field List and then pull up the Query Grid.



iv. Create Query in Query Grid and then use Ctrl + S to save and give Query a smart name.



4. On the Next Pages are the questions (Queries) that we will ask of our database.

- 1. Question: "Show just Description and Sell Price, Sorted by Sell Price"
 - i. Name of Query: Description and Sell Price
 - ii. Show Products Table.
 - iii. Show Fields:
 - 1. Description
 - 2. Sell Price
 - iv. Sort: Ascending on Sell Price field

	Products				
	*				
	Product ID				
	Description				
	On Hand				
	Cost				
	Sell Price				
	Supplier Code				
	Wholesale Retail				
	Wholesale Retail				
	Wholesale Retail				
]	Wholesale Retail		 	ř	
Field:	Wholesale Retail	Sell Price	 		
Field: Table:	Wholesale Retail Description Froducts	Sell Price Products			
Field: Table: Sort:	Wholesale Retail Description Froducts	Sell Price Products Ascending			
Field: Table: Sort: Show:	Wholesale Retail Description Products	Sell Price Products Ascending			
Field: Table: Sort: Show: Criteria:	Wholesale Retail Description Products	Sell Price Products Ascending			

2. Question: "Show the product records for Supplier SC"

- i. Name of Query: Product Records For SC
- ii. Show Products Table.
- iii. Show Fields: All
- iv. Criteria:

Supplier Code Field: SC

	Pro	ducts					
	*						
	Product ID						
	Description						
	On Hand						
	Cost	On Hand Cost					
	Sell Price						
	Supplier Cod	le					
	Wholesale R	etail					
		1			N.		
Field:	Product ID	Description	On Hand	Cost	Sell Price	Supplier Code	Wholesale Reta
Table:	Products	Products	Products	Products	Products	Products	Products
Sort							

Field:	Product ID	Description	On Hand	LOST	Sell Price	Supplier Code	wholesale Retail	
Table:	Products	Products	Products	Products	Products	Products	Products	
Sort:								
Show:	1	V	V	V		1		
Criteria:						"SC"		
or:								

- 3. Question: "Show the product records, where On Hand units are greater than or equal to 10"
 - i. Name of Query: On Hand >= 10
 - ii. Show Products Table.
 - iii. Show Fields: All
 - iv. Criteria:

On Hand field: >=10

03 On H	land > = 10								
-	1	Produc	ts	2					
-	*								
	Product ID								
	Description								
	On Hand								
	Cost								
	Sell Price								
	Supplier Co	de							
	Wholesale	Retail							
•									
Field	Deaduct ID		Description	On Hand	Cash	Call Drive	Supplies Code	14/h a lacada Datail	
Table:	Products	10.00	Products	Products	Products	Products	Products	Products	
Sort:	Troducts		Troducts	Troducts	Troducts	Troducts	Troducts	Troducts	
Show:	V								
Criteria:				>=10	1 7258		0:0	611073	
or:									

4. Question: "Show records where Sell Price is less than \$10 and On Hand units are greater than or equal to 8"

- i. Name of Query: Sell Price < \$10 AND On Hand >=8
- ii. Show Products Table.
- iii. Show Fields:
 - 1. Description
 - 2. Sell Price
 - 3. On Hand
- iv. Criteria (AND Criteria goes on same row):

V

>=8

- Sell Price field: <10
- On Hand field: >=8

04 Sell Price <\$10 AND On Hand >=8

V

Show:

or:

Criteria:

8	Draduet				
-	*	LS			
	Product ID				
	Description				
	On Hand				
	Cost				
	Sell Price				
	Supplier Code				
	Wholesale Retail				
	1				
eld:	Description 🖉	On Hand	Sell Price		
able:	Products	Products	Products		
Sort:	0.000		22 CA		

V

<10

- 5. Question: "Show Products that have a Sell Price between \$5 and \$10"
 - i. Name of Query: Price Between \$5 and \$10
 - ii. Show Products Table.
 - iii. Show Fields: all
 - iv. Criteria (Between Criteria):Sell Price field: Between 5 And 10

05 Price t	Between \$5 An	d \$10						
	Pro	oducts	i i i i i i i i i i i i i i i i i i i					
	*		0					
	Product ID							
	Description							
	On Hand							
	Cost							
	Sell Price Supplier Code							
	Wholesale F	Retail						
			1					
Field:	Product ID	-	Description	On Hand	Cost	Sell Price	Supplier Code	Wholesale Reta
Table:	Products		Products	Products	Products	Products	Products	Products
Sort:	_							
Show:	1		V	V		V	1	V
Critoria						Detroper C And 10		100 C

- 6. Question: "Show Products that have a Sell Price between \$5 and \$10, upper and lower limit NOT included."
 - i. Name of Query: Sell Price >5 AND < 10
 - ii. Show Products Table.
 - iii. Show Fields: all
 - iv. Criteria (And Logical Test):
 - Sell Price field: >5 And <10

Products		
*		
Product ID		
Description		
On Hand		
Cost		
Sell Price		
Supplier Code		
Wholesale Retail		

- 48		
_		

Field:	Product ID	Description	On Hand	Cost	Sell Price	Supplier Code	Wholesale Retai
Table:	Products	Products	Products	Products	Products	Products	Products
Sort:			1	11.1	VI.3.	10. 10	1.11
Show:	V	V	V	V	V		V
riteria:		10000		0.000	>5 And <10	0.000	() (SEI)
or:							

- 7. Question: "Show records for the Suppliers SC or AP"
 - i. Name of Query: Supplier Code Toy Records SC Or AP
 - ii. Show Products Table.
 - iii. Show Fields: all
 - iv. Criteria(OR Criteria goes on different rows after you close and open again they appear on a single row with the Or operator):

Supplier Code field: SC

OR

Supplier Code field: AP

	Prod	lucts						
	*							
8	Product ID							
	Description							
	On Hand							
	Cost							
	Sell Price							
	Supplier Code	÷						
	Wholesale Ret	tail						
								10
Field:	Product ID		Description	On Hand	Cost	Sell Price	Supplier Code	Wholesale Reta
Table:	Products	-375	Products	Products	Products	Products	Products	Products
2011:	1							
Show:	V		V		1	1	V	

or:

Show:

Criteria:

J

- 8. Question: "Calculate average Sell Price"
 - i. Name of Query: Average Sell Price
 - ii. Show Products Table.
 - iii. Show Fields:
 - 1. Sell Price
 - iv. Totals Row:
 - 1. Avg function
 - v. Note: You must right-click Query Grid to show the Totals Row.

	Products				
	*				
8	Product ID				
	Description				
	On Hand				
	Cost				
	Sell Price				
	Supplier Code				
	Wholesale Retail				
		0	 	<u>n</u>	7
eld:	Sell Price				
ield:	Sell Price				

- 9. Question: "Calculate average Sell Price for each Supplier"
 - i. Name of Query: Average Sell Price Group By Supplier
 - ii. Show Products Table.
 - iii. Show Fields:
 - 1. Sell Price
 - 2. Supplier Code
 - iv. Totals Row:
 - 1. Sell Price: Avg function
 - 2. Supplier Code: Group by
 - v. **Note:** "Group By" is a Database Term that means to group records together by a condition and then do something with the records, like calculate an average.

	09	Ave	Sell	Price	Group	By	Supplier \
_							

	Products				
	*				
1	Product ID				
	Description				
	On Hand				
	Cost				
	Sell Price				
	Supplier Code				
	Wholesale Retail				
				 	(
Field:	Supplier Code	Sell Price	7		
Field: Table:	Supplier Code	Sell Price Products			
Field: Table: Total:	Supplier Code Products Group By	Sell Price Products Avg			
Field: Table: Total: Sort:	Supplier Code Products Group By	Sell Price Products Avg			
Field: Table: Total: Sort: Show:	Supplier Code Products Group By	Sell Price Products Avg			

- 10. Question: "Calculate Min & Max Sell Price for each Supplier"
 - i. Name of Query: Min & Max Sell Price Group By Supplier
 - ii. Show Products Table.
 - iii. Show Fields:
 - 1. Sell Price
 - 2. Supplier Code
 - iv. Totals Row:
 - 1. Sell Price: Max function
 - 2. Sell Price: Min function
 - 3. Supplier Code: Group by

	Products				
	*				
	Product ID Description				
	On Hand				
	Cost Sell Price Supplier Code				
	wholesale Ketali				
]	wholesale Retail		- 02	 	
Field: Table:	Supplier Code	Sell Price Products	Sell Price Products		
Field: Table: Total: Sort:	Supplier Code Products Group By	Sell Price Products Min	Sell Price Products Max		

- 11. Question: "Calculate Inventory Value"
 - i. Name of Query: Inventory Value
 - ii. Show Products Table.
 - iii. Show Fields:
 - 1. Description
 - iv. Calculated Field:

Inventory Value:[On Hand]*[Cost]

v. Note: We create a formula here. Formulas are sometimes called "Expressions"

Products		
*		
Product ID		
Description		
On Hand		
Cost		
Sell Price		
Supplier Code		
Wholesale Retail		

Field:	Description	Inventory Value: [On Hand]*[Cost]			
Table:	Products				
Sort:					
Show:	V	V		(m)	1000

12. Question: "Gross Profit per Product"

- i. Name of Query: Gross Profit for each Product
- ii. Show Products Table.
- iii. Show Fields:
 - 1. Description
- iv. Calculated Field:
 - Gross Profit: [Sell Price]-[Cost]

12 Gross Profit for each Product

Products	
*	
💡 Product ID	
Description	
On Hand	
Cost	
Sell Price	
Supplier Code	
Wholesale Retail	

Field:	Description 💂	Gross Profit: [Sell Price]-[Cost]		
Table:	Products			
Sort:	0.25			
Show:	V	V	1000	
Criteria:			1910.0	0.012

- 13. Question: "Show records that have a Description that contains RAIL"
 - i. Name of Query: Products that Contain *rail*
 - ii. Show Products Table.
 - iii. Show Fields: all
 - iv. Criteria:
 - Description field: *rail*
 - v. Note: This sort of query is called a "Contains Query".
 - vi. Note: * is a wildcard that represents zero or more characters and ? represents a single character.

	Pro	ducts						
	*							
8	Product ID							
	Description							
	On Hand							
	Cost							
	Sell Price							
	Supplier Code							
	Wholesale Reta	ail						
	Wholesale Reta	ail						
	Wholesale Reta	ail						
Field:	Wholesale Reta	ail •	Description	On Hand	Cost	Sell Price	Supplier Code	Wholesale Retai
Field: Table:	Wholesale Reta Product ID Products	ail 💌	Description Products	On Hand Products	Cost Products	Sell Price Products	Supplier Code Products	Wholesale Retai Products
Field: Table: Sort:	Wholesale Reta Product ID Products	ail 💌	Description Products	On Hand Products	Cost Products	Sell Price Products	Supplier Code Products	Wholesale Retai Products
Field: Table: Sort: Show:	Wholesale Reta	ail 💌	Description Products	On Hand Products	Cost Products	Sell Price Products	Supplier Code Products	Wholesale Retai Products

14. Question: "Show phone and supplier contact for products that have On Hand less than 5"

- i. Name of Query: Product Re-Order Phone List
- ii. Show both Tables
- iii. Show Fields:
 - 1. Product ID
 - 2. Description
 - 3. On Hand
 - 4. Cost
 - 5. First Name
 - 6. Phone



- 15. Question: "Parameter Query for Supplier Code"
 - i. Name of Query: Records by Supplier
 - ii. Show Products Table.
 - iii. Show Fields: all
 - iv. Criteria:

Square brackets with phrase in it, like: [Enter Supplier Code]

v. Note: This sort of query is called a "Parameter Query".

15 Records by Supplier (Parameter Query) Products * Product ID Description On Hand Cost Sell Price Supplier Code Wholesale Retail 4 Field: Product ID Wholesale Retail Description On Hand Cost Sell Price Supplier Code Table: Products Products Products Products Products Products Products Sort: Show: V 1 V 1 V J 1 Criteria: [Enter Supplier Code] or:

New Keyboards in Video

1. F2 to rename Query