

Access 2003: Select Queries

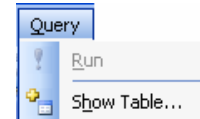
Select Query

Create and use a Select Query. This is the most common kind of query.

You can ask questions of more than one table (unlike filters), create new calculated fields, summarize and group data, and show and/or hide fields. This handout uses the Access Business Template called Service Call Management located at <http://office.microsoft.com/en-us/templates/TC010184671033.aspx?CategoryID=CT011366681033>

You can create a select query by using Queries>New>Design View.

Add any tables or queries you want to use.
Use Query>Show Table” or click on the icon.



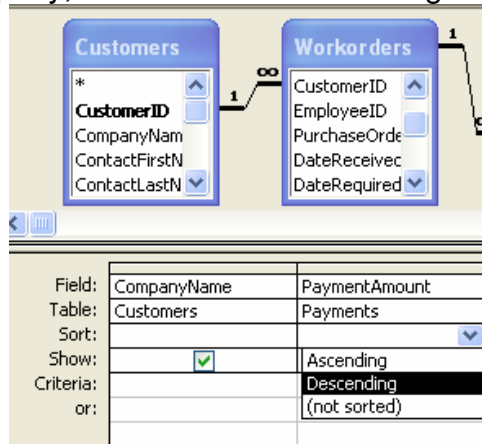
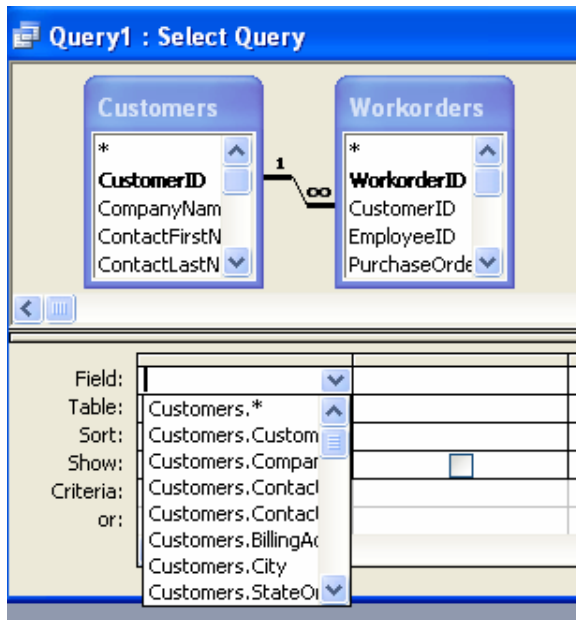
Add any fields to the lower pane of the window.

Click on the dropdown on a cell & choose the field.

You can also drag the fields to the lower cells or double-click on the field. If you double-click, the field will show up in the next available location.

Double-clicking on the * automatically includes all fields.

To Show or Hide fields in the query, click on the box in the Show row. If the field is needed in a form or report that is based on the query, the field must be showing.



Records can be sorted according to the Sort choices, ascending, descending, or not sorted.

If records are to be sorted by more than one field, the sorting order is left to right by the fields placed in the query.

Adding Criteria to a Select Query

Choose various options, such as sorting, grouping, or specific criteria.

Comparison operators for criteria are:

< (Less than) <= (Less than or equal to) = (Equal to)
 > (Greater than) >= (Greater than or equal to) <> (Not equal to)

Access automatically places pound signs (#) around the dates and quotes around the alphanumeric values (“”).

If you use wildcard characters (? for single character and * for one or more character), Access automatically inserts the word “Like” before the criteria and puts quotes around the criteria.

Adding a Calculated Field to a Query

Where it is not appropriate to have a calculated field in a table because it is a waste of space, it is very appropriate to have a calculation performed in a question. The answer can be generated and put into a report.

Use New>Design View and set up the query with the appropriate tables and fields.

In the Workorder Labor table, there are the fields “BillableHours” and “BillingRate.” A calculated field can be created in the query, LaborFee which is the BillableHours field multiplied by the BillingRate field.

Field:	WorkorderID	EmployeeID	BillableHours	BillingRate	LaborFee: [BillableHours]*[BillingRate]
Table:	Workorder Labor	Workorder Labor	Workorder Labor	Workorder Labor	
Sort:					
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:					
or:					

Here are the results. The LaborFee would need to have currency formatting in a report, not in the query results. This query can be saved as a LaborFeeQry. (Remember that queries and fields cannot have the exact same name.)

Workorder ID	Employee ID	Billable Hours	Billing Rate	LaborFee
2	Focht, Kelly	1	\$23.00	23
1	Focht, Kelly	1	\$56.00	56
1	DeSerrano, Shane	2	\$45.00	90
3	Getzinger, Tom	1.5	\$22.00	33
4	DeSerrano, Shane	1.25	\$45.00	56.25
5	Focht, Kelly	0.45	\$55.00	24.75
6	Getzinger, Tom	0.85	\$35.00	29.75
7	Focht, Kelly	1.75	\$55.00	96.25
8	DeSerrano, Shane	0.4	\$45.00	18
9	DeSerrano, Shane	0.4	\$45.00	18
9	Osada, Michiko	1.2	\$35.00	42

And/Or Query

You can create and/or queries by making modifications to the select query. And/Or queries involve having criteria for more than one field. For example, you could search for cities and states, sales reps and customers, etc.

An And Query is used to meet criteria for more than one field at the same time. Place all criteria on the same row.

For example, if you wanted to know when employee Getzinger received a cash register from Coho Vineyard & Winery to work on, you would set a query.

Field:	CompanyName	LastName	DateReceived
Table:	Customers	Employees	Workorders
Sort:			
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:	Like "coho*"	"getzinger"	
or:			

In the CompanyName field, the criteria is 'Like "coho*" ' with coho & an asterisk in quotes for the Coho company name.

After the query has been run, it can be saved with an appropriate name, such as CompanyANDEmployeeQry. The query can be reused with different companies and employee combinations.

An Or Query is used to meet criteria for any field at the same time. Place all criteria on different rows.

For example, if you wanted to know if someone from Wide World Importers had brought in a cash register to work on OR if Focht has been getting any work requests. You could show the date for either one of these circumstances.

Field:	CompanyName	LastName	DateReceived
Table:	Customers	Employees	Workorders
Sort:			
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:	Like "wide*"		
or:		"focht"	

In the CompanyName field, the criteria is 'Like "wide*" ' with wide & an asterisk in quotes for the Wide World company name.

After the query has been run, it can be saved with an appropriate name, such as CompanyOREmployeeQry. The query can be reused with different companies and employee combinations.

Between/And Query

You can create between/and queries by adding criteria to the lower pane of the query window.

The values mentioned in the Between/And are included as being relevant.

If the phrase were "Between 1 and 5," both 1 and 5 would be included in the answer.

You cannot use wildcards when putting in the values for this type of query.

You will not get valid information if you try to use "Not" as in "Not Between 2 and 6."

Between/And information is entered on the Criteria row in the chosen field.

Notice in the pictures below, quotes are around the phrases (") & pound signs (#) are around the dates.

If you wanted to see if there was a pattern with Error 3435, you could look to see if there was a correlation with either serial numbers or date received.

Field:	WorkorderID	SerialNumber	ProblemDescription
Table:	Workorders	Workorders	Workorders
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:		Between "J55555-55" And "J77777-77"	
or:			

Field:	WorkorderID	DateReceived	ProblemDescription
Table:	Workorders	Workorders	Workorders
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:		Between #1/1/2003# And #3/1/2003#	
or:			

Workorder ID	Serial Number	Description
2	J656565-56	Cash register door does not open.
4	J656565-57	Screen reads "Error 3435"
6	J656565-58	Screen is blank.
8	J656565-59	Cash register door does not open.
(AutoNumber)		

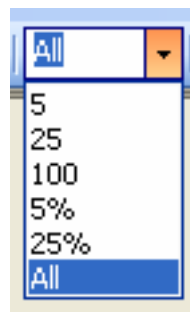
Workorder ID	Date Received	Description
5	1/11/2003	Screen reads "Error 3433"
4	1/18/2003	Screen reads "Error 3435"
5	1/25/2003	Screen is blank.
6	1/12/2003	Screen is blank.
7	2/2/2003	Screen reads "Error 3433"
8	2/1/2003	Cash register door does not open.
9	2/8/2003	Stop working after a power surge in lightening storm.
(AutoNumber)		

The queries could be saved as BetweenAndSerialNumbersQry and BetweenAndDateReceivedQry.

Top Value Query

You can create top value queries by using the Top Value box. The default is usually All to show all records.

TopValues can be used only in select, append, and make-table queries.



Chose New>Design View.

Add the appropriate table or tables.

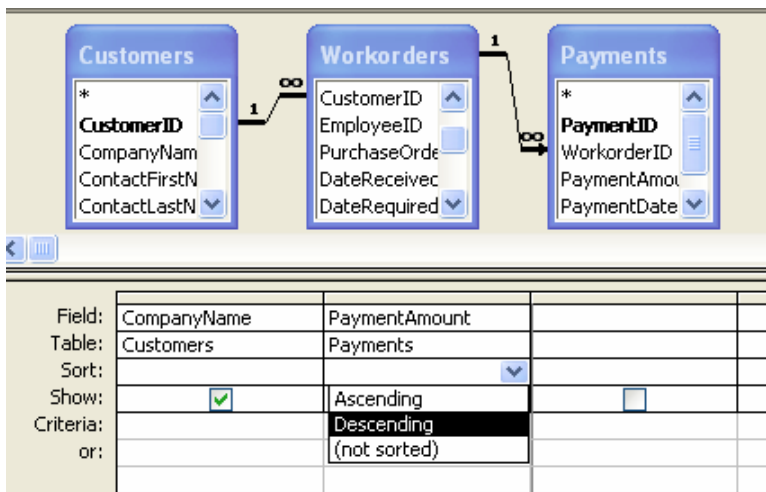
Add the appropriate fields.

Select the Sort row under the field you want sorted.

Sort ascending or descending.

Choose the Top Value box and either choose or enter in the number you want sorted.

For example, if you only wanted the top two values, you could type a “2” in the Top Value box.



In this case, the query was asking which two payments were the greatest amount and who paid them.

Although Customers>Company Name and Payments>PaymentAmount were not related, adding the additional table Workorders gave accurate data.

Here are the results:

Company Name	Payment Amou
Alpine Ski House	\$190.03
Litware, Inc	\$190.03
Trey Research	\$190.03
Coho Vineyard & Winery	\$190.03
Contoso, Ltd	\$190.03
A. Datum Corporation	\$190.03
Fourth Coffee	\$190.03
Wide World Importers	\$190.03
Northwind Traders	\$190.03

WITHOUT the additional table

Company Name	Payment Amou
Wide World Importers	\$190.03
Wide World Importers	\$37.80
*	

WITH the related table