

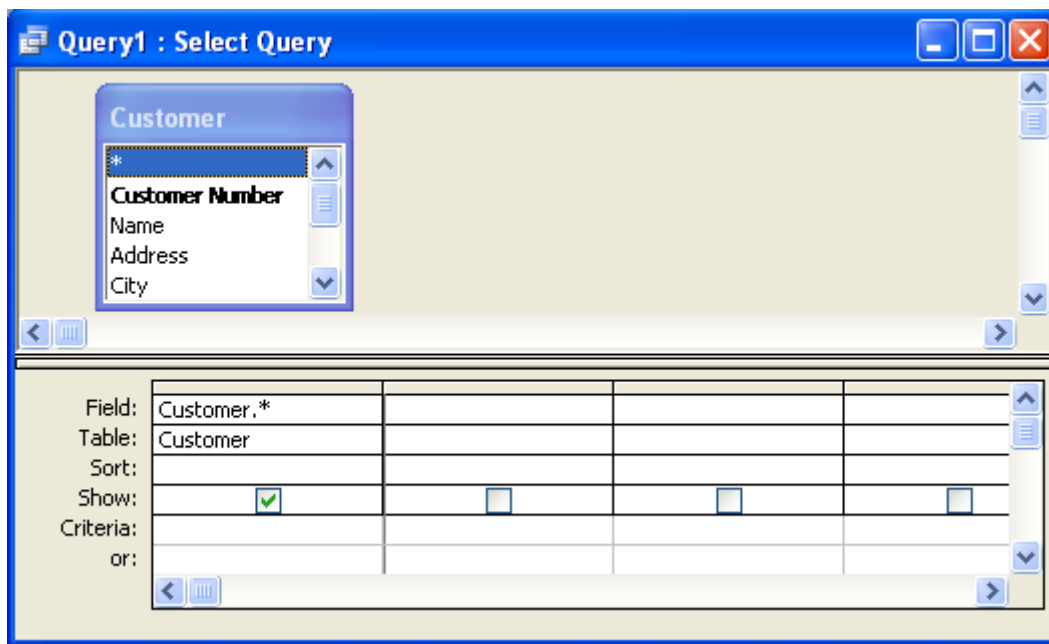
Lab 10 Querying a Database




Problem: Querying an Access database.

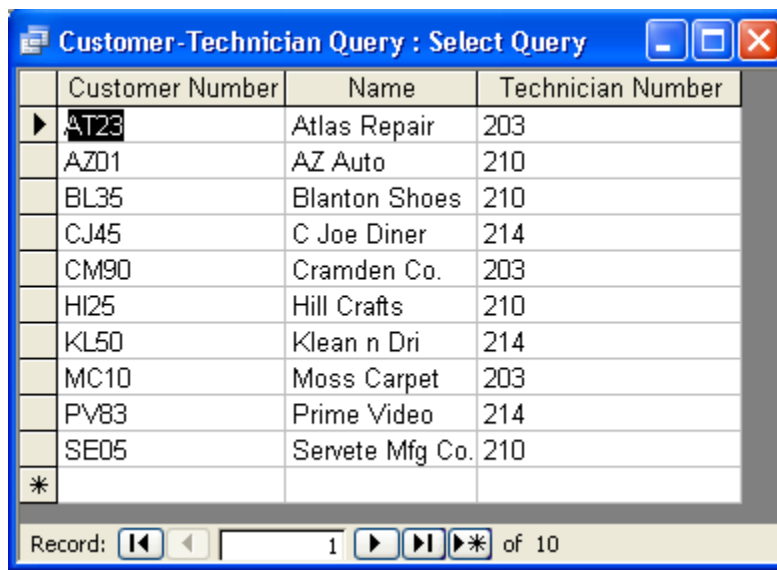
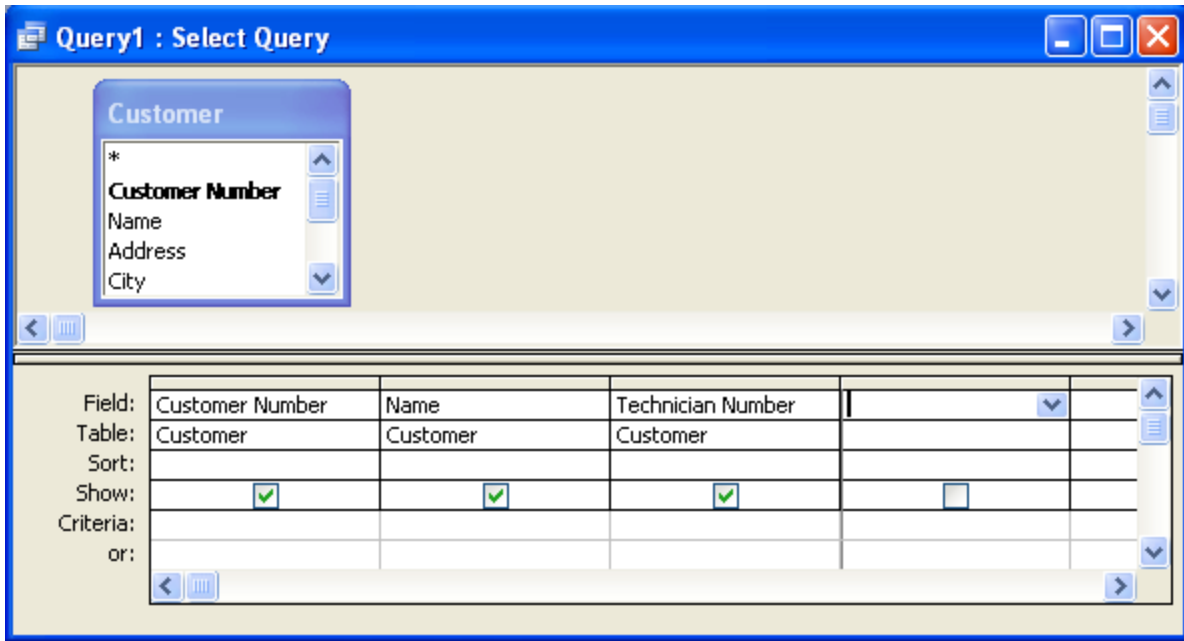
1. Download the Begon Pest Control database from http://faculty.lasierra.edu/~dlin/classes/cptg104/labs/lab10/Begon_Pest_Control.mdb
2. Save the database in your “My Documents” folder, and double click to open it.

Displaying records from the tables

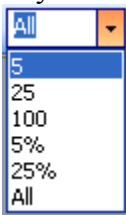
3. Create a new Select Query by selecting the Queries object and then double click on Create query in Design view.
4. In the Show Table window, select the Customer table and click the Add button. Then click the Close button.
5. In the Select Query window, click on the Field row in the first column, click the down arrow, and then select the Customer.* field.



6. Click on the Run button  to execute the query. You have just created a query that retrieves all of the records and displays all of the fields from the Customer table. The asterisk (*) in the field name means everything, in this case, it means to display all of the fields in the customer table. Compare this with the Customer table and you should see that all of the data are the same.
7. Click on the Design view button  to modify the query.
8. Instead of displaying all of the fields from the Customer table, display only the Customer Number, Name, and Technician Number. You do this by selecting the field that you want to display in the Field row; one field name per column as shown below. Make sure that there is a green check mark in the Show box for that column. Click on the Run button  again to see the result.



9. If you want to see only the top 5 records, go to Design view and click on the top values



menu from the toolbar, and select 5. Remember to click the Run button after each change. This will only show the first five records. When you have seen it, change back to All.

Searching for matching data

10. If you want to see only the clients whose technician number is 210 then type “210” in the Criteria row under the Technician Number column. Click Run. Compare the result from this

query with the data in the Customer table to make sure that it is correct. There should be 5 records.

- If you put more than one condition in different columns but in the same Criteria row, then the conditions are ANDed together, i.e., all of the conditions has to be true for a match. If you put more than one condition on different Criteria rows, then the conditions are ORed together, i.e., only one of the condition has to be true for a match.
11. Modify the query so that it will only show the client records whose technician number is 210 AND their city is Kady. Compare the result from this query with the data in the Customer table to make sure that it is correct. There should be 3 records.
 12. Modify the query so that it will only show the client records whose technician number is 210 OR their city is Kady. Compare the result from this query with the data in the Customer table to make sure that it is correct. There should be 6 records.
 13. Modify the query so that it will find ONLY those clients who have an address on Fletcher. Use the * symbol for the wildcard character, i.e., type *Fletcher in the criteria field. Write down the number of records you found on the printout you will produce in step 21.

Modifying the data in the tables

14. Suppose technician 214 left the company and all his clients are given to technician 203, so we need to change all of the records for technician number from 214 to 203. Before you actually perform an update query, first look at the Customer table and note the records whose technician number is 214.
15. Select Query from the menu and select Update Query. Under the Technician Number column, type 214 for the Criteria, and type 203 for the Update To information. This will tell Access to search for all records with the Technician Number equal to 214 and change it to 203. Click the Run button. Access will display a message about the update. Click Yes to perform the change.
16. Now go look at the Customer table again and see that all the 214's have been changed to 203.
17. Create a new Update Query that will change all of the customer balance from \$0 to \$134. Make sure that you run this query. After you have executed the query, check the Customer table to make sure that the changes were made correctly.

Creating queries for reports

18. Create a new Select Query with the Customer table joined with the Technician table via the Technician Number. Add the Technician Number, First Name and Last Name fields from the Technician table, and the Customer Number, Name, Address and Balance fields from the Customer table. Display only customers whose balance is < 350 OR the address is on Fletcher. Sort the records in ascending order by Customer Number. Save this as "Query 2".
19. Create a report based on Query 2 from step 18:
 - a. The report uses all fields (except Address) from the Query 2 query.
 - b. Add a grouping by Technician Number
20. After generating the report, return to the report's Design view and make these changes:
 - a. Change the name of the report to Lab 10 Report 1, and include your full name as a label.
 - b. The Technician's First and Last names should appear in the Technician Number Header section. Do this by dragging the First Name and Last Name fields from the Detail section, into the Technician Number Header section.

- c. Modify the Page Header section of the report by removing the First Name and Last Name labels, and modifying the other text labels so the report should look like this (yours should contain more data):

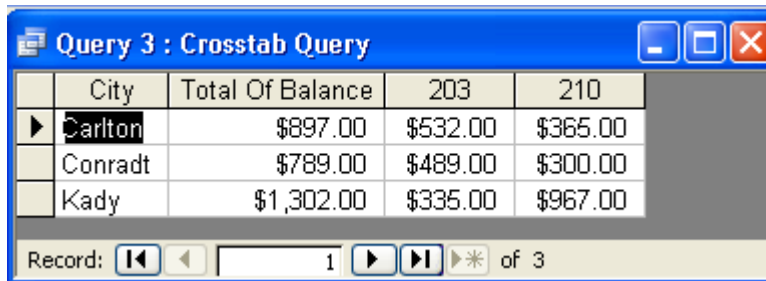
Lab 10 Report 1 by Your Full Name

<i>Technician</i>	<i>Customer</i>	<i>Name</i>	<i>Balance</i>
203	Miguel Estevez	PV83	Prime Video \$134.00
		MC10	Moss Carpet \$398.00
		CJ45	C Joe Diner \$134.00
		AT23	Atlas Repair \$335.00
210	Rachel Hillsdale	SE05	Servete Mfg Co. \$343.00
		HI25	Hill Crafts \$334.00
		BL35	Blanton Shoes \$290.00
		AZ01	AZ Auto \$300.00

- d. **Print and turn this report in, with the hand written answer to question 13.**

21. Create a Crosstab Query as follows.

- Do Insert | Query.
- In the New Query window, select Crosstab Query Wizard.
- Select the Customer table, and click Next.
- For the row heading, select City (click >). Click Next.
- For the column heading, select Technician Number. Click Next.
- For the calculation, select field Balance and function Sum.
- Save the query as Query 3. The query should look like this:



- Create a report based on Query 3. Label this report as “Lab 10 Report 2” and add a label with your full name.
- Print and turn this report in.**