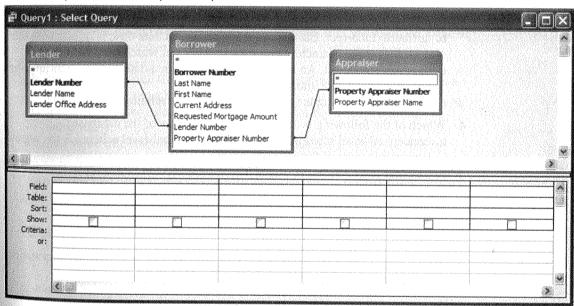**4.9** Using only the data in Table 4-18, create a set of relational tables that solve the update, insert, and delete anomalies.

Table 4-18
Purchase Order (PO) Table

Purchase Order #	Purchase Date	Order Part #	Description	Unit Price	Quantity Ordered	Vendor #	Vendor Name	Vendor Address
2	3/9/08	334	XYZ	$30	3	504	KL Supply	75 Stevens Dr.
2	3/9/08	231	PDQ	$50	5	504	KL Supply	75 Stevens Dr.
2	3/9/08	444	YYM	$80	6	504	KL Supply	75 Stevens Dr.
3	4/5/08	231	PDQ	$50	2	889	Oscan Inc	55 Cougar Cir.

4.10 From the database created in the comprehensive problem, perform queries based on the tables and query grid shown in Table 4-19.
   a. Which borrowers use Advent Appraisers?
   b. What is the average amount borrowed from National Mortgage?
   c. List all of the property appraisers.
   d. List all of the lenders.
   e. List the lenders that lent more than $100,000.
   f. Which borrower requested the largest mortgage?
   g. Which borrower requested the smallest mortgage?

Table 4-19
Select Query Screen for Chapter Comprehensive Problem

CASE 4-1 Research Projects

As in all areas of information technology, DBMSs are constantly changing and improving. Research how businesses are using DBMSs, and write a report of your findings. Address the following issues:

1 Which popular DBMS products are based on the relational data model?

2 Which DBMS products are based on a logical model other than the relational data model?

3 What are the relative strengths and weaknesses of the different types (relational versus other logical models) of DBMSs?