

TYPES OF QUERIES

A query is a description of records that are to be retrieved from a database table. It helps answer questions about the information in a database. For example, “Which students received a G.P.A. of 3.0 or higher?” or “Which students are taking an English course?” When creating a query, the names of the fields, the table associated with the fields, and the criteria to use for the query are specified. With Microsoft Access queries, it is possible to:

- ☞ Focus on only information needed by displaying only a few fields from a large table.
- ☞ Apply functions and other expressions to fields to arrive at calculated results.
- ☞ Add, update, or delete records in tables in order to create an entirely new table or tables.
- ☞ Summarize and group values from one table and display the result in a table.
- ☞ Save a query definition that Access will treat as a table for the purpose of creating forms and reports.
- ☞ Retrieve information stored in multiple tables, even when the tables aren’t open.

A query datasheet is a subset of data that is similar to a filter. However, it is much more powerful than a filter. See the table below for the different types of queries.

Type	What It Does
Select	This type of query retrieves and displays data from one or more linked tables and displays the results in a datasheet. This is the most common type of query.
Crosstab	This query is used to summarize values (sums, counts, averages) from one field in a table and then group the values by one set of fields listed down the left side of the datasheet and another set of fields listed across the top of the datasheet.
Action	Use this type of query to perform operations on the records that match specified criteria. There are four kinds of action queries that can be performed on one or more tables. These are listed below.
Append	This is a query that appends (adds) records to another table.
Delete	Use this query to delete the records in a table based on an expression. You need to use caution when working with this type of query. Once a record is deleted from a table, it is not possible to retrieve that record. It might be a good idea to create a backup copy of the table just in case the query doesn’t work properly.
Make Table	To create a new table based on the query, use this type of query.
Update	This type of query is used to update data based on an expression that has been inserted into the query. You need to use caution when working with this type of query. Changes in a record are not reversible. You would have to run another Update query to reverse the change made by this type of query.
Parameter	This is a query that uses a prompt for a single piece of information to use as a selection criteria. For example, instead of creating a separate query to retrieve information about each state in which business is done, a parameter query could be created that prompts the user to enter the name of a state. A dialog box is displayed asking for the specific criteria for the query.

Type	What It Does
Union	This query is used to combine the results of two or more independent queries or tables.
Pass-Through	This is an SQL query that is used to send data directly to the ODBC database server. It allows the user to work directly with tables on the server.
Data Definition	This is an SQL query that allows the user to create or alter objects in the database.