FOR THE RECORD

Teacher Guide

SUMMARY

In this activity, students create a database that catalogs their music collection of CDs and tapes. Then they sort, analyze, and print selected database records in answer to questions about their favorite music recordings and performing artists.

OBJECTIVES

◆ To build a full-featured database customized to meet specific needs.

◆ To learn how to search, sort, analyze and manage a database

◆ To evaluate the activity in a thoughtful essay

PREREQUISITE SKILLS

◆ Knows how to launch a database application in *Microsoft® Access* or *Microsoft® Works*

◆ Knows the functions of *Microsoft Access* or *Microsoft Works* including how to enter and correct information; copy, change, and delete information; change appearance of text and numbers, and print database files

◆ Knows database terms and concepts such as table, record, and field

◆ Knows how to browse the World Wide Web using *Microsoft® Internet Explorer*

TIME ALLOTTED

Approximately one to two weeks
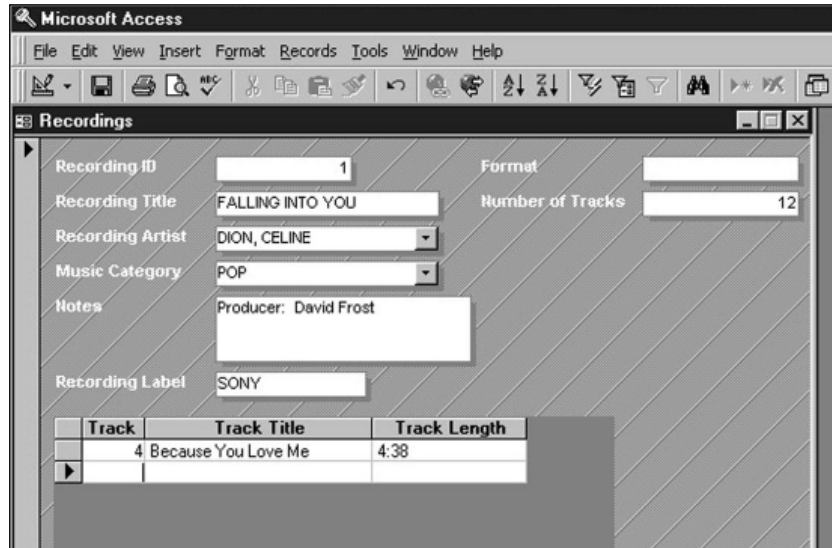
Music database entry in *Microsoft Access 97*

HOW TO BEGIN

Ask students how they keep track of important birthdays, addresses, telephone numbers, and appointments (e.g., wall or desk calendars with important dates penciled in, address books, notes on the refrigerator, sticky notes on a bedroom or kitchen bulletin board).

Have students discuss the advantages (inexpensive) and disadvantages (easy to lose) of conventional paper-based memory boosters.

Talk about what a computer database is and what it does. Encourage students to think about the advantages of an electronic database (e.g., information is stored in a single place; it's readily available; it can't be misplaced; it's easy to update; it's always neat and legible; you can search for records in a variety of different ways).

Explain to students that in this activity they will build a database to catalog either their home music collection of audio CDs, records, and cassette tapes or the collection available in the school music room/library.

Provide a glossary of terms that students are likely to encounter as they create a database such as table, record, field, query, filters, sort, layout, database wizard, design view, form view, datasheet view, preview mode.

Recommended Web Sites
◆ **Music Central Online**
   http://musiccentral.msn.com/
◆ **The Ultimate Band List**
   http://www.ubl.com/

Student Activity

DESCRIPTION

In this activity, you learn how to manage information by creating numbered records which you arrange, retrieve, sort, and print. You will use **Microsoft Access** to catalog your collection of music CDs, records, and cassette tapes, storing information about recording artists, music styles, and music tracks. (Note: With slight modifications, you can do this activity using **Microsoft Works 95**.) You will learn how to display this information in a datasheet (table format) or on a custom-designed form. You will also learn how to retrieve information from the database using the software's Find command. By employing a variety of sorting techniques to examine your data, you will try to find patterns or trends. The goal is to develop a "wish" list of CDs or tapes for distribution to friends and family, so that everyone knows exactly what to get for your next birthday. Finally, you will write a report using **Microsoft Word**, evaluating the significance of this activity.

STEP 1

Prepare a Database Template

SOFTWARE: **Microsoft Access**
(or Microsoft Works);

WHAT TO DO: Launch **Microsoft Access**, choose Database Wizard from the Create a New Database dialog box, then
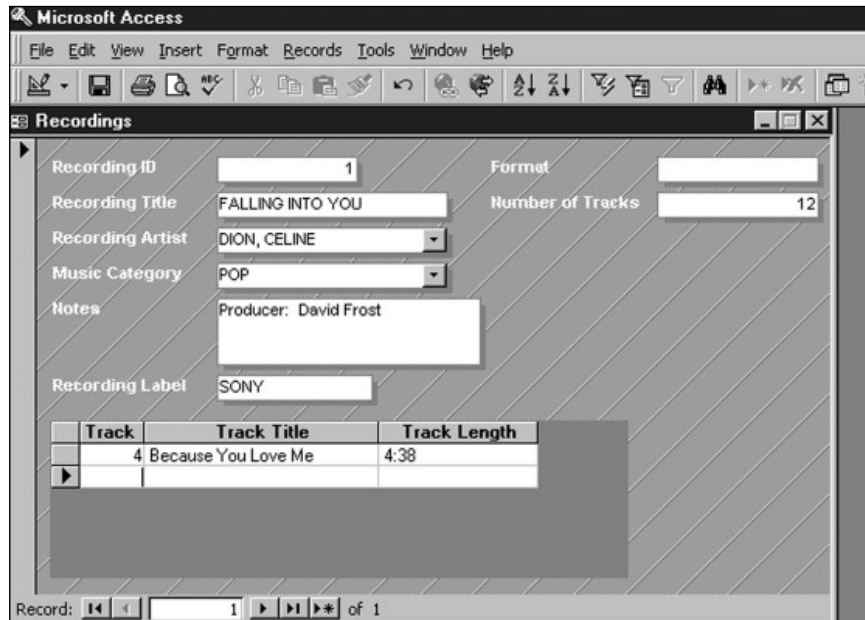
Example 1: **Record database entry using Microsoft Access**

double click on the "Music Collection.mdz" wizard to create a music collection database. Name your new database, then click the Create button. (Note: If you use the database module in **Microsoft Works 95**, you can use a WorksWizard to create a database template. **Works** does not have a Music Collection TaskWizard.)

When the Music Collection Database Wizard appears on screen, choose the fields you want to include in the various database tables. Decide whether you want to include any optional fields (the ones listed in italics) or any sample data. Click the Next button.

Choose a style for the screen display of your database form, then click Next. Choose a style for your printed reports, then click Next. Finally, name your database and decide

whether you want to include a picture on all reports. When you click Finish, your music database will be ready to accept data.

STEP 2

Enter Data

SOFTWARE: **Microsoft Access**

WHAT TO DO: If the Access Main Switchboard dialog box is not visible on screen, choose Open database from the File menu, then double-click on the music collection database. Click the Enter/View Recordings button. Begin cataloging your music CDs and other recordings by filling out the Recordings form.

In the Recording Title field, enter the title of your record, for example, Falling Into You. As soon as you begin entering data, **Access** automatically assigns this record a

Example 2: **Display of multiple recordings from more than one musical category in *Microsoft Access***

Recording ID. This is the number *Access* uses to identify this record to related tables in your music collection database.

Press the tab key to enter the name of the recording artist. Since this is a new entry, you won't be able to select an artist from the drop down list. Follow *Access*' request to double-click this name field. Doing so displays the Recording Artist form. Enter "Dion, Celine" in the Recording Artist field. In the Notes field, enter the name of the Producer and any other information you would like to include. Click the Close button to return to the Recordings form. Now you can select Celine Dion's name from the menu drop down list.

Tab to the Music Category field, and enter the appropriate cateogory. Tab to the Recording Label, and enter the name of the record label, for example, Sony. Include the appropriate information in the fields that specify Format and Number of Tracks (see Example 1). You can enter information about each track, track title, and track length by tabbing from one field to another to move through the list. To create a new record, choose New Record from the Insert menu.

STEP 3

Sort Data

SOFTWARE: Microsoft Access (or Microsoft Works)

WHAT TO DO: Develop new insights about your music collection by rearranging, sorting, and filtering the data. After you've entered a few records, you can make them easier to find by putting them in alphabetical order. In Example 2 , we sorted a collection of CDs in the catagories of Jazz and Chants by the name of the artist.

To sort the table alphabetically by artist, press F11 to open your Music Collection Database window. This shortcut key works from any location in the database. Click the Tables tab, then double-click the Recordings object. The Recordings Table opens on screen. Click the column heading labeled "Recording Artist ID." The entire column will highlight. Then click the Sort Ascending Toolbar button (AZ).

Access then alphabetically sorts the table data by Recording Artist. To resize column width for any column in the table (Data- sheet view), click-drag on the line divider to the

right of a column heading. To resize a column so that all data fit, double-click a column heading's right divider line.

STEP 4

Find Data

SOFTWARE: Microsoft Access or Microsoft Works

WHAT TO DO: If you can't remember the name of a particular recording, but you know the name of its recording artist, use the *Microsoft Access* Find command to locate the required information. Follow these steps:

◆ Press F11 to open the Music Collection Database window. Click the Forms Tab, then double-click the Switchboard object. The Main Switchboard window opens. Click the Recording Artist category, then click the binoculars (Find) icon on the Forms toolbar. The Find dialog pops up on screen.

◆ Enter the name of the recording artist in the Find What field. Select All from the Search field drop down list. Select Any Part of Field from the Match drop down list (that way you don't have to enter the full name of the Recording artist). Make
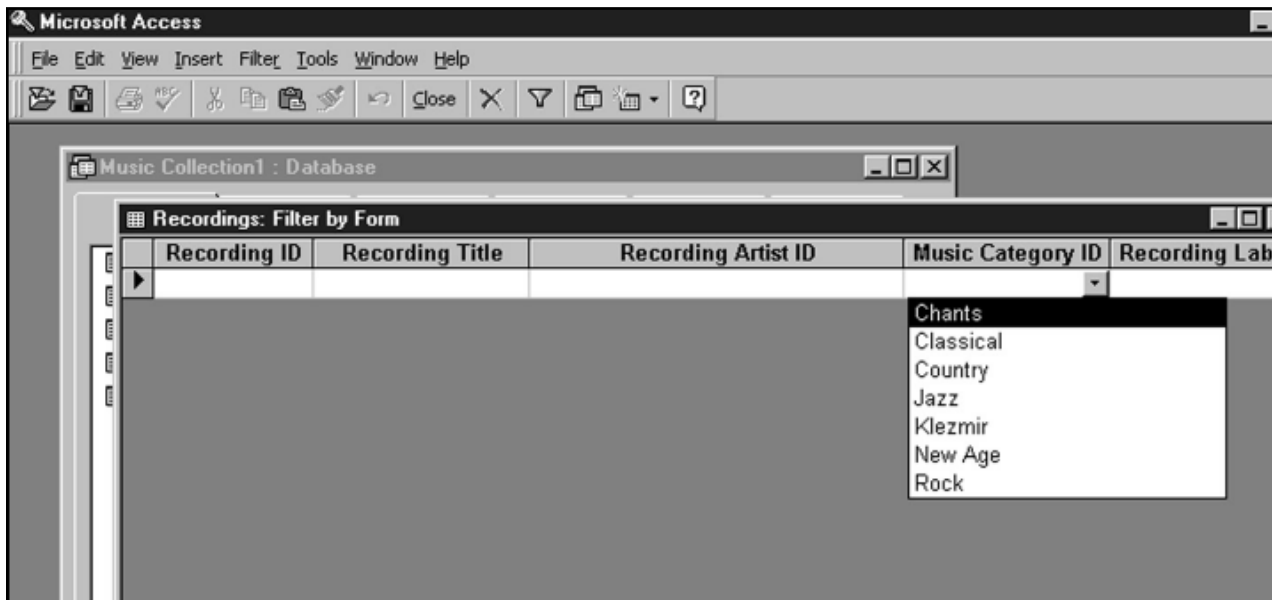
Example 3: **The Recording Filter by Form window in *Microsoft Access***

sure there's no check mark next to the Match Case or Search Only Current Field options.

◆ Click the Find First button. *Access* searches the database and returns a record that matches the criteria you've entered. If this is the record you want, click the Close button. If this is the record, click the Find Next button.

◆ To display all recordings of a particular music category, press F11 to return to the Database Window. Click the Tables tab, then double-click the Recordings object. Click a music category in the Music Category ID column, then click the Filter By Selection toolbar button (the icon with both a funnel and a lightening bolt). *Microsoft Access* then displays only those database records in the music category you chose.

To work with all records in the database, click the Remove Filter toolbar button. To have *Microsoft Access* display recordings from more than one musical category, use the Filter by Form toolbar button. Just follow these steps:

◆ Have *Access* display all records in the database by clicking the Remove Filter toolbar button.

◆ Next, click a Music Category ID field that you want to include in the search (e.g., Jazz) then click the Filter by Form toolbar button.

◆ *Access* displays the "Recordings: Filter by Form" window. Click the "Or" tab at the bottom of this window, then select "Chants" from the Music Category ID drop down list (see Example 3).

◆ Next, click the Apply Filter toolbar button. A new table displays on screen containing all Jazz and Chants records in the database. You can also filter the database by mixing items from several columns.

◆ Click the Print Preview Toolbar button to see how your database will look when printed. Next, click the Print toolbar button to have Access print a copy of selected records.

STEP 5

Reporting the Results

SOFTWARE: Microsoft Word;
Microsoft Access

WHAT TO DO: To import an *Access* table to a *Microsoft Word* report, display the *Access* table you want to import. Next, choose Office Links from the *Access* Tools menu. Finally, select "Publish It with *MS Word*." *Access* will save the table in RTF format and automatically open it in *Microsoft Word*.

Once you have database information in *MS Word*, report on the results. Who's your favorite artist? What's your favorite music category? What's your favorite musical instrument. Would any of your other data collections benefit from database management? ■