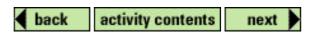
ACTIVITY CONTENTS:

Class Act Database

- Introduction
- Thinking About the Question
- Materials
- Safety
- Investigation I: Planning a survey
- Investigation II: Designing your database
- Investigation III: Collecting data
- Technical Hints
- Analysis
- Further Investigations



Class Act Database Introduction

Discovery Question: What do I have in common with my classmates?



This activity will introduce you to a database that sorts, organizes, and analyzes data about your classmates.



Thinking About the Question

What do I have in common with my classmates?

Everyday each of us makes many decisions. We decide what to do, where to go, what to eat, what to buy, and how to do the things that are important to us. We make these decisions based on data. Data is any information that we can collect in an organized manner to answer a question. Some data that we collect can be used to answer many questions. Sometimes we want to save data and come back to it at a later time. Being able to sort through and organize data efficiently can be very useful, saving a lot of energy, time, and money.

Let's think about an example from school. A coach must record ages, grades, home addresses, emergency telephone numbers, and parent names of all the players on the soccer team. He will need this information the to order soccer shirts, shorts, and shoes in the right sizes for everyone on the team. He creates a form for each student requesting all of this information. Now he wants to order the clothing and shoes. Before the season starts, the coach must supply each manufacturer the number of each size he needs. Since he has 20 team members and 20 sheets he must filter through all of the papers. As the season starts he needs to send notices about the practice schedule to each parent. How would you organize all of this data so that it is easy to use?

Spend five minutes discussing this problem with other people in your group and write your ideas down.



Class Act Database Materials

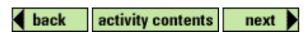
- ClarisWorks
- student information
- clipart





Class Act Database Safety

No specific safety features needed for this activity.



Class Act Database Investigation I

Planning a survey

Today you will learn to use a computer database to collect, sort, and organize data or information. One way to collect information about people is to ask them to complete a survey with a list of questions. Because data collection must be systematic you need a plan. First you need to decide what information you want to collect. Then you need to design a survey to collect the information. Next you need a plan for how you want to enter the data into your database so that you can retrieve it easily to answer your question(s).

Discuss with your partner what information you would like to collect on a survey that you will do with your classmates. Discuss and decide how to record the information that you collect. Design a survey that you will ask your classmates. You might include basics such as, first and last names, age, gender (boy or girl), hobbies, sports, favorite colors or foods, etc. Be sure to include first and last name and a choice for either boy or girl and at least three other categories of information in your survey.



Class Act Database Investigation II

Designing your database

Create a database that will hold the information you collected. Discuss how you want the data to appear in your database. Refer to <u>Technical Hints</u> on how to make a database.

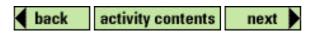


Class Act Database Investigation III

Collecting data

Record your data while interviewing your classmates or have them complete a written survey and then record the information in your database. Refer to <u>Technical Hints</u> on how to enter data into your database.

Record your data while interviewing your classmates or have them complete a written survey and then record the information in your database. Refer to Technical Hints on how to make a database.



Class Act Database Technical Hints

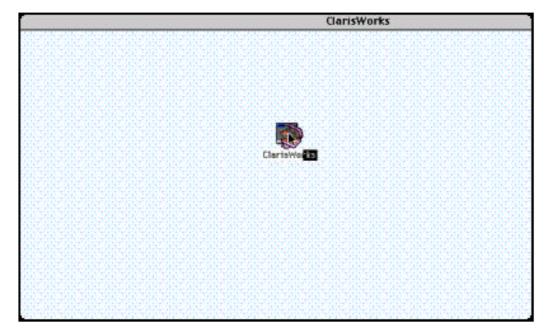
- Opening a database
- Creating specific fields
- Creating a popup menu
- Increasing the size of your database layout window
- Entering data into a database
- Sorting in a database
- Hiding or seeing multiple records
- Designing a layout
- Adding a picture in the header
- Sorting and matching using the Layout menu





To open a database:

- 1. Start ClarisWorks by double clicking on its icon.
- 2. Choose New from the File Menu.
- 3. In the New Document dialog box, choose Database and click OK.



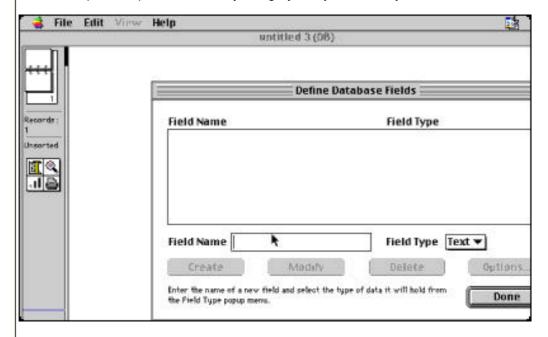
4. After the ClarisWorks database opens, a field dialog box will be visible. Fields or general categories will allow you to record information from your classmates. Refer to Technical Hints to see how to create specific fields.





To create specific fields:

- 1. Type a field name inside the box.
- 2. Click create to record your field name.
- 3. Repeat the process for every category that you will ask your classmates.



CLOSE

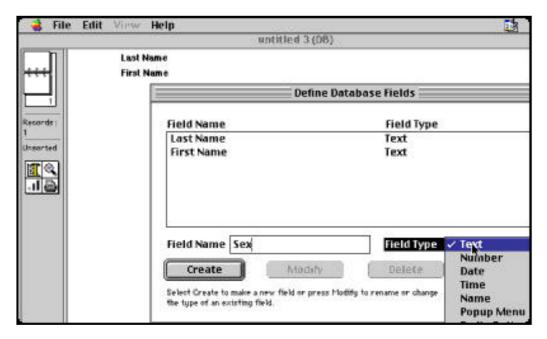


To create a popup menu:

Note that the dialog box has field types. Some of the fields are classified as text fields. Some of the categoies that you will ask may be other types of field types. Ages are recorded as number fields. Birthdates are recorded as date fields.

Some information can be easily recorded by using a popup menu.

- 1. Type the title of your category and click Create.
- 2. Select Popup from the Field Type menu.
- 3. With your category highlighted, click Modify.
- 4. Type a choice and click Create.
- 5. Repeat for each choice.
- 6. Delete item 1 from the choices.



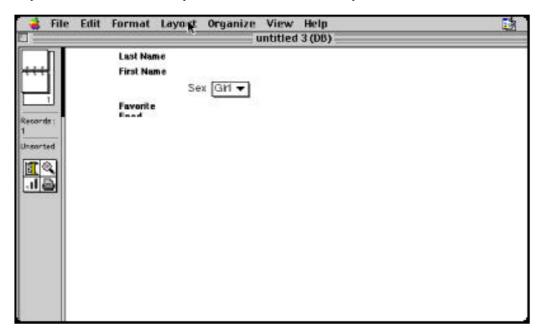
7. After you click Done, you will see your choices of fields in the database.





To increase the size of your database layout window:

- 1. Include all of your topics that you wish to ask on your survey.
- 2. Often your fields are too large for the database window. To solve this problem select Layout from the Layout menu. Slide the Body box down to include all of your fields.

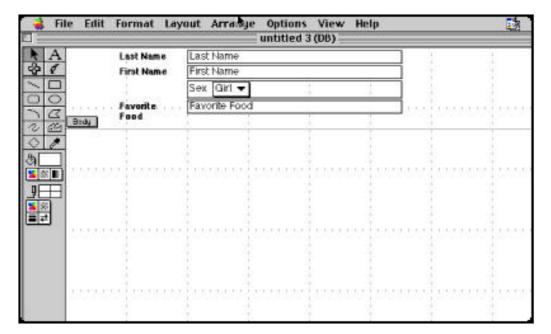




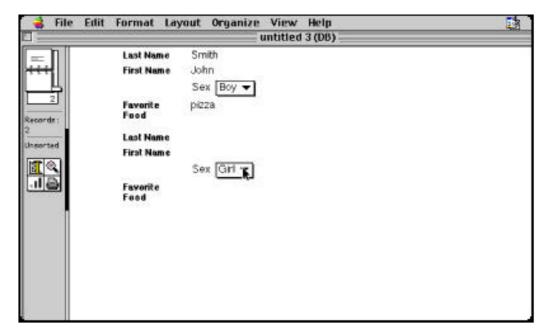


To enter data:

- 1. Open Browse found under the Layout menu.
- 2. . Enter your last and first name into the field.
- 3. To add data from other students, choose New Record from the Edit menu.
- 4. Delete a record from the same Edit menu.



5. **Caution**: If you do not select within a field, the page will turn black. You will need to locate a field to begin entering your information.



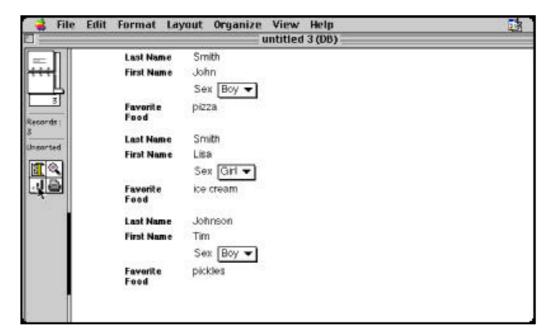
6. Be sure to save your database before closing. Select Save from the File menu.





To sort a database:

- 1. Select the Sort icon in the left margin.
- 2. Choose New Sort from the menu.
- 3. When the Sort Records dialog box opens, highlight and move the item which you want to sort the information.
- 4. Name your sort and click OK. The database will be sorted. To sort again after adding new records, select your sort by clicking again on the Sort icon.

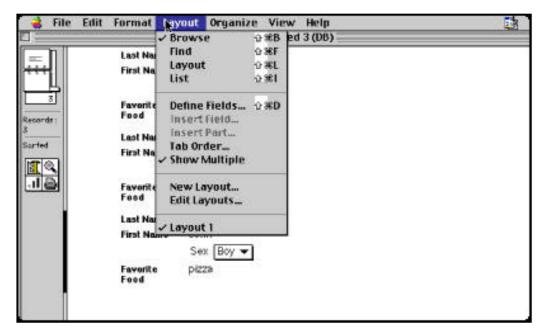






To hide or see multiple records:

- 1. Deselect Multiple Records under the Layout menu.
- 2. If a single record is showing, leaf through the database by clicking on the flip chart in the left margin. Another option is to choose Find/Change under the Edit menu.

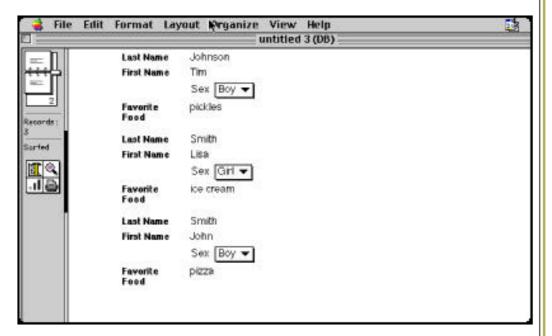






To design your layout:

- 1. From the Layout menu, select Layout.
- 2. Click on any box, four squares will appear in the corners.
- 3. Resize the field boxes.
- 4. Move the field boxes to desired location.

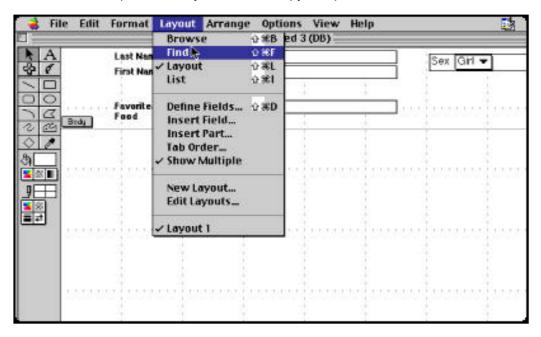




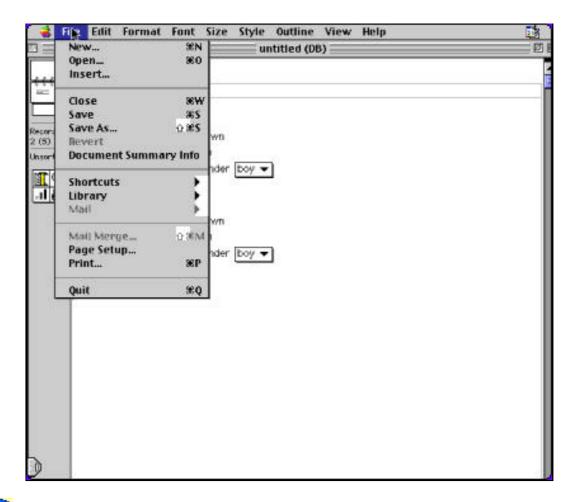


To add a picture in a header:

- 1. Return to the Browse mode under the Layout menu.
- 2. Under the Format menu, select Insert Header.
- 3. You can select clipart from any source and copy and paste it into the header.



- 4. Or, you can open clipart inside ClarisWorks by selecting Library under the File menu and use the ClariWorks clipart.
- 5. Select open from the menu.
- 6. Choose the Education option. Select School Bus or any other desired clipart.

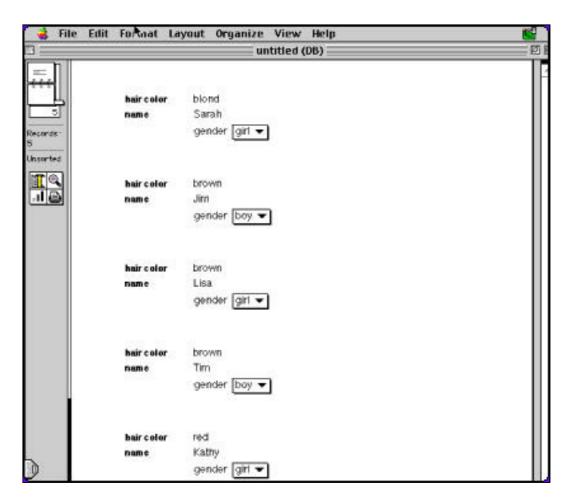


CLOSE

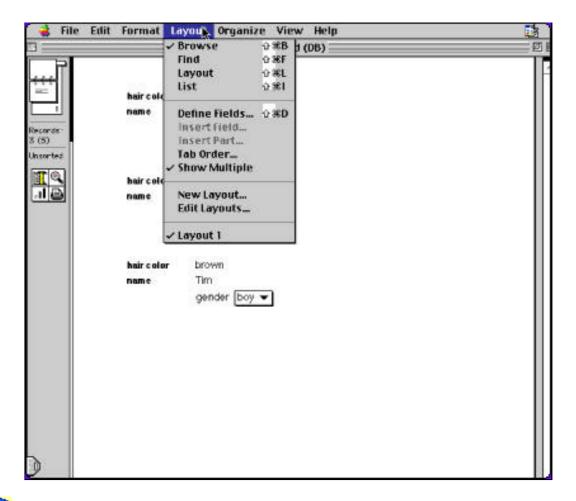


To sort and match from the Layout menu:

- 1. Select Show All Records from the menu.
- 2. Select Find from the Layout menu.
- 3. Enter your sorting selection in the appropriate defined field box.
- 4. Click on the Find button.



- 1. To find more than one choice at a time (also called matching), select Find from the Layout menu.
- 2. Select Find from the Layout menu.
- 3. Enter your sorting selections in the appropriate defined field box.
- 4. Click on the Find button.



CLOSE

Class Act Database Analysis

- 1. Sort your data for a specific question in your survey. Refer to <u>Technical Hints</u> to perform a sort. For example, sort your data by gender. How many boys and girls are there in your class?
- 2. Now pick another of your questions, such as favorite movie. Sort your data based on the field that contains the information for that question. You should end up with an alphabetical list, with identical answers grouped together.
- 3. On a spreadsheet or on a paper make a chart to record how many different responses there were for one of your questions. For each different response record how many student responded that way. Which response was the most frequent? Which was the least frequent? What is the range of the number of responses for the question that you asked? In other words, how many students answered questions in similar way?
- 4. Write a paragraph about what you learned from your survey about your question on paper. Cite evidence from your database and chart to support your conclusion(s).
- 5. Is there a relationship between one category such as boys or girls and another such as favorite movie or food? You can use the Find function under the Layout Menu to help you organize this data to answer this question. Refer to <u>Technical Hints</u> to perform multiple finds or a match of several characteristics at one time.
- 6. Use your data to discuss and write a statement about what you have found out about your question on paper.
- 7. Find another team that asked one of the same questions. Did you come to the same or different conclusions? If not, what might account for the difference?



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Class Act Database Further Investigation

Expand your data to a larger number of people. Include other students at your school. Interview members of your family and your neighborhood. Add new fields to your database if necessary.

