

Digital Communications 7.01

1. If calculations are going to be made in a database field, the type of field to be used should be number.
2. One row of data is a record.
3. Advantages of using a database are easy to insert information, search data electronically, and sort data electronically.
4. Database management software is used to organize large amounts of data.
5. Examples of databases at a hospital are linen inventory, patient data, and prescription drug catalog. A hospital newsletter is not an example of a database.
6. A record in a database is made up of a series of fields.
7. Column E in a database, used to enter student grades, should be formatted as a number.
8. The data in a field is an entry.
9. A coin collection could be set up as a database.
10. Field names, search, and sort are related to computerized databases.
11. In a database, a social security number should be formatted as text.
12. Field types such as date, numeric, and text would be used in databases.

Digital Communication 7.02

1. Use filter/query to retrieve particular records with a certain set of conditions.
2. To find all the Grammy winners in the Alternative category since 1990, one should efficiently search the database by Category = "Alternative", Year>="1990".
3. Jake's Auto Sales has two databases. One database includes all the new vehicles and the other database includes all the cars on the lot. To retrieve information from both databases in the same query identify the key field.
4. The # symbol indicates that the data in a field is too long.
5. When inputting data while viewing one record at a time, use list view to see a full page of records.
6. After planning a report from a database, fields must be selected to include in the report.
7. If Brown's Clothing is searching a database for all products costing more than \$50.00, you use should the > mathematical operator.
8. Mrs. Cauthorn needs to quickly locate all of the cosmetic customers in the city of Raleigh. She should filter the database.
9. To make changes to an existing database, you must first retrieve the file.
10. To filter a database for all FBLA members who are juniors and raised more than \$100 in the fundraiser, the class and sales fields would be queried.
11. The process of arranging data in an A-Z order is ascending.
12. When sorting a column of data, the second column to consider when arranging the data is the secondary sort.

Ascending — Sorting data in alphabetical order from A-Z or numerical order from

Comparison Operators — Symbols used in search criteria. (>, <, =, >=, <=, <>)

Connectors — Words such as AND, OR and NOT that join certain conditions together when performing a search.

Currency — A numeric type which add a \$ sign to number.

Database - An organized collection of information.

Database Management System — Software that allows the computer to create a database; add, change, and delete data in the database; sort the data; retrieve the data; and create forms and reports using the data in the database.

Date data — Entries in a database that are formatted for data in a particular style. (i.e. 04/15/03 or April 16, 2003)

Descending — Sorting data the opposite of ascending order. (Z-A & 9-0)

Entry — Data that is keyed into a field.

Field — A category of information in a database.

File — A group of related records.

Filter/Query/Search — A method to find specific data within a database that meets certain criteria.

Form view — A method of viewing or inputting data that displays only one record at a time.

List view — A method of viewing or inputting data that displays several records at a time.

Numeric data — Entries in a database that are formatted for numbers and can be used in a calculation.

Primary key — The field selected as a unique identifier for the database.

Primary sort — The first field that a database is sorted on.

Record — A group of fields related to one topic.

Sort - To arrange data in alphabetical or numerical order.

Text data — Entries in a database that represent text; such as, phone numbers, names, colors.

Examples of Uses of Database Software

- To keep a list of friends and family addresses to mail Christmas cards.
- To update patient information at a hospital.
- To delete a customer from the telephone book.
- To arrange an inventory list in alphabetical order.
- To generate a report from student data.

Ascending - A type of sort that arranges data from A-Z.

Descending - A type of sort that arranges data from 10-1.

Key - The field that is used as an unique identifier.

Secondary - A type of sort that is performed after the primary sort is defined.

Field Name - A name given to a field in the database.

Comparison - Operators, such as (<, >, =), that are used to define the search criteria.

Commonly used databases

Address books, Dictionaries, Encyclopedias, Library card catalogs, Patient data, Student data, Telephone directories

Advantages of an electronic database

Accurate, quick and efficient arrangement of data in alphabetical or numerical order
Ability to find and retrieve data
Ability to generate reports on the database
Ease of editing existing data

Steps to design a database

Plan and design the database according to needs and requirements
Determine the fields or categories that will be used in the database
Determine field properties to include size and type

Techniques/Devices to input data

Keyboard, Mouse, PDA's, Scanners, Speech Recognition Software, Web forms

Terminology

An *entry* is data that is in a field
A *field* is one category of information
A *field name* is the title that is assigned to a field
A *record* is a group of related fields of one item of information in the database
A *file* is the collection of related records.

Typical views of a database

List view - Displays several records on the screen at a time
Form view - Displays one record on the screen at a time. Commonly used in data entry.

General data types

Currency (\$)
Date (03/03/03)
Numeric (450) - These numbers can be used in calculations, I.E. Gross pay, basketball statistics, etc.
Text/General (Smith) - Numbers may used, but would not be computed, I.E. Social security numbers, telephone numbers, etc.

Sorting - to arrange data in alphabetical or numerical order

Ascending order (1-10 or A-Z)

1,2,3,4,5

Adams, Petteway, Rodriquez

Descending order (10-1 or Z-A)

5,4,3,2,1

Rodriquez, Petteway, Adams

Primary/Secondary Sorts

Primary key: The field selected as the unique identifier for the database.(i.e. Student number)
Primary sort: The first field that a database is sorted on. Secondary sort: The second field that a database is sorted on.

Searching/Querying/Filtering to find specific data based upon a given criteria or condition

Queries/Filters use *connectors* and *comparison operators* to define the search criteria

- Connectors (AND, OR, NOT)
- Comparison operators (<, >, <=, >=, =, <>)