

Database Management system in agriculture

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1 Data Base

A database is a systematic collection of data arranged in columns and rows. It can be used to quickly retrieve, sort and test data meeting specific criterion. In database language, each row is called a record and each column a field. A database is used to store large volumes of data.

2 DBMS

A database management system is the software that functions as the interface between users, other programs and the database itself. It allows the data to be stored, maintained, manipulated and retrieved.

3 Features of DBMS

The DBMS permits the user to create, maintain and manipulate the information stored within a file. These features are common to almost all database packages.

1. Creating a file
2. Entering database records
3. Sorting
4. Deleting
5. Updating

4 Structure of database management packages

The structure of DBMS is used to organize the data elements in three basic ways:

1. Hierarchical database structure
2. Network database structure
3. Relational database structure

5 Relational Database Management Systems (RDBMS)

A relational database management system is defined as a method of viewing information from several, separate databases that relate to one another through keywords or values.

Features of RDBMS

1. Tables
2. Queries
3. Forms
4. Reports

Excel as package for RDBMS

To some extent, Microsoft Excel also serves as database management software, which stores data in the form of columns and rows. In Excel there are 256 columns and 65,536 rows.

Sort: Use the Sort dialog box to sort a range of selected cells. Sort by

If you're sorting rows, select the first column to sort by. If you're sorting columns, select the first row to sort by. Then by

Use this box if you're sorting by more than one column or row. After the range is sorted by the column or row in the Sort By box, additional columns or rows sort the range in sequence.

Filtering

Filtering is a quick and easy way to find and work with a subset of data in a range. A filtered range displays only the rows that meet the criteria (criteria: Conditions you specify to limit which records are included in the result set of a query or filter.) you specify for a column. Microsoft Excel provides two commands for filtering ranges:

6 Perform a statistical analysis:

Microsoft Excel provides a set of data analysis tools— called the Analysis Tool-Pak— that you can use to save steps when you develop complex statistical or engineering analyses. You provide the data and parameters for each analysis; the tool uses the appropriate statistical or engineering macro functions and then displays the results in an output table. Some tools generate charts in addition to output tables.

1. On the Tools menu, click Data Analysis.
2. If Data Analysis is not available, load the Analysis ToolPak.
3. In the Tools menu, click Add-Ins.
4. In the Add-Ins available list, select the Analysis ToolPak box, and then click OK.
5. If necessary, follow the instructions in the setup program.
6. In the Data Analysis dialog box, click the name of the analysis tool you want

to use, then click OK.

7. In the dialog box for the tool you selected, set the analysis options you want.