ClubMac Database Presentation

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Spreadsheet vs. Database Software

- Definitions
- Uses for spreadsheet software
- Uses for database software

Spreadsheet Software

- A modern spreadsheet file consists of multiple worksheets that make up one workbook, with each file being one workbook.

- A cell on one sheet is capable of referencing cells on other, different sheets, whether within the same workbook or even, in some cases, in different workbooks.

Spreadsheet Software

- Spreadsheets share many principles and traits of databases, but spreadsheets and databases are not the same thing.

- A spreadsheet is essentially just one table, whereas a database is a collection of many tables

Spreadsheet Software

- While it is true that a workbook that contains three sheets is indeed a file containing multiple tables that can interact with each other, it lacks the relational structure of a database.

- Spreadsheets and databases are interoperable—sheets can be imported into databases to become tables within them, and database queries can be exported into spreadsheets for further analysis.

Spreadsheet Software

- A formula identifies the calculation needed to place the result in the cell it is contained within.

- Spreadsheets usually contain a number of supplied functions, such as arithmetic operations (for example, summations, averages and so forth), trigonometric functions, statistical functions, and so forth. In addition there is often a provision for user-defined functions

Database Software

- A database is a structured collection of data. The data are typically organized to model relevant aspects of reality (for example, the availability of rooms in hotels), in a way that supports processes requiring this information (for example, finding a hotel with vacancies).

- The term database is correctly applied to the data and their supporting data structures, and not to the database management system (DBMS). The database data collection with DBMS is called a database system.

Database Software

- Database software allows you to organize information (data). This helps users keep track of lists of things, sort the information by categories and find data that fits specific criteria.

- The telephone directory is one example of a database. Database software also helps users manage product inventories, customer accounts, library holdings and even websites.

Database Types

- A basic database that keeps all of your field names and data in the same file is a <u>flat file database</u>. You create flat file databases to manage all of your information about a particular topic or list.

- However, if your databases hold related information about several topics or lists, you should create a <u>relational database</u>. It is more flexible and powerful than a flat file. It allows you to store the fields for a customer's name and address in a separate file from the one that you use to store the customer's purchase history. A common field such as the customer's ID number links the databases.

Creating a Database

- Sketch your design on paper before you start. This will give you a guide to go by as you construct it on the computer.

- Use tutorials on the Filemaker website)<u>http://www.filemaker.com</u>/) and others like Lynda.com (<u>http://www.lynda.com/</u>).

- Use templates supplied with the program or download from the internet.

Example Databases

- A flat file database used for managing student information in for a school guidance office.

- A relational database for managing a school Advanced Placement (AP) program.

- Examples of some templates.

Database Resources

- http://www.filemaker.com/products/filemaker-pro/12/resources.html/

- http://www.Lynda.com/

- http://www.vtc.com/products/FileMaker-Pro-11-Beginner-Tutorials.htm

- http://filemakerfree.com/index.html

- http://www.briandunning.com/filemaker-pro/

- http://filemaker.suisolutions.com/products/

- http://www.filemakertoday.com/com/forumdisplay.php/7-FileMaker-Pro-and-the-Web

- http://info.filemaker.com/US-en-FM12-iOS-Platform-LP.html?source=S6

- http://www.easyfreeware.com/freeware/filemaker.html