Sorry, after reading other student's answer I realize my understanding wrong.

According to Sharma, N., Perniu, L., Chong, R. F., Iyer, A., Nandan, C., Mitea, A. C., Nonvinkere, M., & Danubianu, M. (2010). Databases fundamentals. database is a repository of data, a ***database management system***, or simply DBMS, is a set of software tools that control access, organize, store, manage, retrieve and maintain data in a database. In practical use, the terms database, database server.

According to Watt, A., & Eng, N. (2014). Database design, A *database management system (DBMS)* is a collection of programs that enables users to create and maintain databases and control all access to them. The primary goal of a DBMS is to provide an environment that is both convenient and efficient for users to retrieve and store information.

**Advantages**

* Reduced data redundancy
* Reduced updating errors and increased consistency
* Greater data integrity and independence from applications programs
* Improved data access to users through use of host and query languages
* Improved data security
* Reduced data entry, storage, and retrieval costs
* Facilitated development of new applications program

**Disadvantages**

* Database systems are complex, difficult, and time-consuming to design
* Substantial hardware and software start-up costs
* Damage to database affects virtually all applications programs
* Extensive conversion costs in moving form a file-based system to a database system
* Initial training required for all programmers and users

**References**

Sharma, N., Perniu, L., Chong, R. F., Iyer, A., Nandan, C., Mitea, A. C., Nonvinkere, M., & Danubianu, M. (2010). Databases fundamentals. (pp. 23 - 46)

Watt, A., & Eng, N. (2014). Database design,  2nd ed. BCcampus, BC Open Textbook Project. (pp. 1 - 27)

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http://www.cl500.net/index.html