A **database system** is a term that is typically used to encapsulate the constructs of a [data model](http://en.wikipedia.org/wiki/Data_model), database Management system ([DBMS](http://en.wikipedia.org/wiki/DBMS)) and [database](http://en.wikipedia.org/wiki/Database" \o "Database).[[1]](http://en.wikipedia.org/wiki/Database_system#cite_note-0)

A [database](http://en.wikipedia.org/wiki/Database" \o "Database) is an organised pool of logically-related data. Data is stored within the data structures of the database. A [DBMS](http://en.wikipedia.org/wiki/DBMS) is a suite of computer software providing the interface between users and a database or databases. A DBMS is a shell which surrounds a database or series of databases and through which all interactions take place with the database. The interactions catered for by most existing DBMS fall into four main groups:

* Data Definition. Defining new data structures for a database, removing data structures from the database, modifying the structure of existing data.
* Data Maintenance. Inserting new data into existing data structures, updating data in existing data structures, deleting data from existing data structures.
* Data Retrieval. Querying existing data by end-users and extracting data for use by application programs.
* Data Control. Creating and monitoring users of the database, restricting access to data in the database and monitoring the performance of databases.

Both a database and its DBMS conform to the principles of a particular data model.[[2]](http://en.wikipedia.org/wiki/Database_system#cite_note-1) Data models include the [hierarchical data model](http://en.wikipedia.org/wiki/Hierarchical_model" \o "Hierarchical model), the[network data model](http://en.wikipedia.org/wiki/Network_model), the [relational data model](http://en.wikipedia.org/wiki/Relational_model" \o "Relational model) and the [object-oriented data model](http://en.wikipedia.org/wiki/Object_database" \o "Object database).