

Data Storage

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What is Data Storage?

- The term data storage covers all of the many ways in which data is held.

What is a database?

Find some real life examples

- A database is a system for managing a collection of data.

What is the structure of a database table?

- Data such as customers details can be stored in tables.
- A database table is made up of rows and columns
- Every row is known as a record
- Every column is known as a field (e.g. customers names).

Clarify the following key terms:

Record – A group of selected data which are associated in some way.

Field – A single piece of data within a record.

Primary Key – A single unique key used to identify each record in a table.

Foreign Key - A field which can be used to cross-reference and access associated information across many tables.

What are the data types stored in a database?

Data Type	Example
Text	Sequences of letters, numbers and other symbols. Someone's name would be a text field. A field that can accept multi-line text is often called a memo field.
Number	Represents a numerical value. A product's price or the number of items left in stock would be stored as numbers. This would enable you to produce a report summing up the prices of all the products you had sold, which wouldn't be possible if they were stored as text.
Date/time	Stores dates or a combination of dates and times.
Logical/ Boolean	Represents a value that is either true or false. For example, when a customer opens an account with an online company, they might be asked whether they are happy to receive marketing material. Their answer could be stored in a logical field (true if they are happy to receive marketing information, false if they are not).

What is a primary key and a foreign key in a database?

Primary Key is a single unique key used to identify each record in a table.

Foreign Key is a field which can be used to cross-reference and access associated information across many tables.

What are the four types of database relationships?

Relationships can be one-way two-way, one-to-many or many-to-one. Many-to-many relationships also exist in some databases but are extremely complex to provide.

What is an online database?

Provide some real life examples

- Online databases are databases which are accessible using a network, including the internet.
- *Database are simply a collection of data held in a central place.* For example, KeepandShare, Vectorwise, Microsoft[®] Office[®] 365, Alventis).

What is a database management system?

- Database management systems (DBMS) are the programs which allow you to create any database that you need and to use the databases you have created.

What is structured query language?

What are the 2 parts of SQL?

Structured Query Language (SQL) is a high-level language which is used to undertake this management activity. It is normally in two parts:

- Data definition Language (ddl): This is the part which is used to define the database structure.
- Data Manipulation Language (dml): This is the part used to add, delete, change and query the data which is held in the database structure