

Kit's Computing Quest: Mastering Databases

Learning objective: To understand the structure, function, and purpose of databases, including fields, records, and searching strategies.

Use these flashcards to test your knowledge of databases. Kit the fox has prepared these to help you organise information like a computer scientist!

What is a database?

A structured collection of data held in a computer, designed to make searching and retrieving information efficient.

Define a 'Record' in a database.

A single complete set of related information about one item, person, or event, usually represented as a row in a table.

Define a 'Field' in a database.

A single category of information within a record, such as 'First Name' or 'Price', representing a column in a table.

What is a 'Query'?

A specific request for information from a database, often used to find records that meet certain criteria.

What is the purpose of a 'Primary Key'?

A unique identifier for each record in a database, ensuring that no two records are identical, such as a student ID number.

Explain the difference between 'Sorting' and 'Filtering'.

Sorting arranges data in a specific order (like alphabetical or numerical), while filtering hides data that does not meet specific criteria.

Why do we use databases instead of paper files?

Databases allow for much faster searching, easier updating of information, and the ability to handle massive amounts of data without losing it.

What is a 'Flat-file database'?

A database that stores all data in a single table, which is simple but can lead to repeated information if the data becomes complex.

In a library database, if you search for all books published after 2010, what are you performing?

A query using a filter or search criteria.

If a database contains prices, why is it important to define the field type as 'Currency' rather than 'Text'?

Defining it as currency allows the computer to perform mathematical calculations like sums or averages, which it cannot do with text.