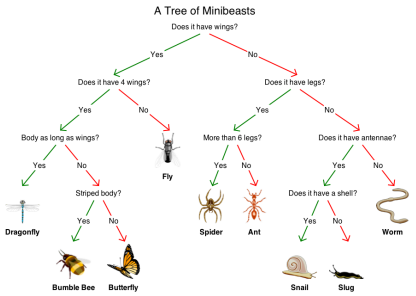
Computing
Branching Databases

Overview

- Data is raw numbers and figures. Information is what we understand from looking at and analysing data.
- Objects can be organised into groups based on the attributes of the items.



- Branching databases can help us to identify objects within sets of data. They are used for classifying objects and in science we call them classification keys.

Grouping and separating

Grouping: Objects can be sorted into different groups. These groups can be made up of objects that have the same attributes.

Yes or No Questions: Branching databases use yes or no questions to separate objects. E.g. *Does the minibeast have 6 legs?* We can combine yes and no questions to refine groups into subgroups.

Open ended questions: An open ended question is a question which you can answer in many different ways. Open ended questions are too detailed to create large enough groups for a branching database.

Branching databases

Branching Databases

A branching database, also called a binary tree, is a method used to categorize a collection of objects. When designed properly, it can assist in identifying a specific object within the group.

Creating a Branching Database

Software like j2data can be used to build branching databases. To begin, choose the objects you want to include. Then, create 'yes' or 'no' questions to sort them. Continue adding questions until each object is classified separately. For the best results, aim to keep the number of objects in each group fairly balanced.

The Structure of Branching Databases

To create an effective branching database, the quality of your questions is crucial. Each question should distinguish objects based on their characteristics. For example, asking "Does it have stripes?" would help to separate certain animals. It's also important to think carefully about the order in which you ask your questions to ensure a clear and logical classification process.

Key Questions

What is data?

Raw data and figures

What are branching databases for?

Organising items into groups and identifying objects in a group

When we sort items into a collection they share with others with the same attribute, what do we call this?

Grouping

What kind of questions do we have to ask to create a branching database?

Yes or no questions

Give one other name for a branching database.

Binary tree or classification key

Key Vocabulary