

# Year 5 – Flat-file Databases

A **database** is a collection of data that is stored in a computer and that can be easily used and added to.

Every item you put into your **database** is called a **record**. Each record will have its own row with all the information you want to store about it,

The columns of the table are called **fields**.

When searching a database the search puts matching records into groups

The screenshot shows a search interface with the query 'How many legs' and a table of results. A purple box highlights a row for 'Bumble bee' with 6 legs. Arrows point from the word 'fields' to the column headers and from 'record' to a row.

Mini Beast	Picture	How many legs	Does it have v
Bumble bee		6	<input type="checkbox"/>
Ant		6	<input type="checkbox"/>
Butterfly		6	<input checked="" type="checkbox"/>

The screenshot shows a table with the following fields and values for South Africa:

Field	Value	Description
Country Name	South Africa	This data is text
Area	1,221,037 km <sup>2</sup>	This data is numeric
Population	54956900	This data is numeric
Language	Afrikaans	This data is text
Flag		This data is an image
Currency	South African Rand	This data is text

## Searches:

- You can narrow a search by using AND in the database. This will show you records where both the fields searched for take place.

The screenshot shows a search interface with the query: Age = 16 AND Boarded = Southampton.

- You can also narrow your search by using OR to show the results of more than one field.

The screenshot shows a search interface with the query: Class = 1st OR Class = 2nd.

- Real life databases use the same search tools to help you find exactly what you are looking for. This travel website also helps you to sort the records that match your search from the lowest to highest price.

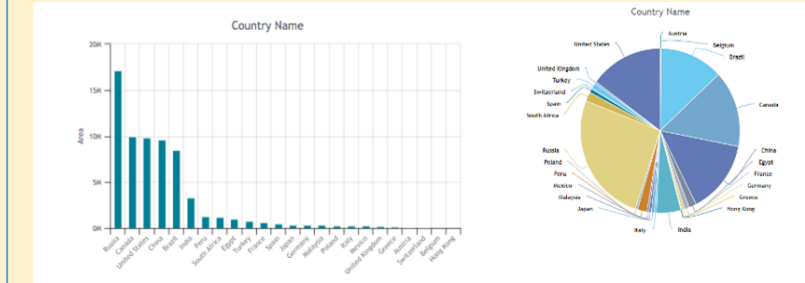
The screenshot shows a travel website search results page. Annotations include: 'Filters' pointing to the left sidebar, 'Sort by' pointing to the 'Price (Lowest)' dropdown, and 'Records' pointing to the flight results table.

## Graphs:

We use graphs to help present information visually.

bar graph

pie chart



You can use the chart tab to create a chart using filters to define the x and y axes. There are many different types of graph and it is important to choose the right one to present your information

The screenshot shows a database interface with a 'chart' tab selected. A bar graph is displayed with 'Gender' on the x-axis and 'Survivor (S) or Victim (V)=S' on the y-axis. The chart shows two bars: one for 'Female' and one for 'Male'.