Summary

A **database** is a way of storing information in an organised, logical way.
Validation and verification are two ways to check that the data entered into a computer is correct. Data entered incorrectly is of little use.
There are two main methods of verification:
Double entry - entering the data twice and comparing the two copies. This effectively doubles the workload, and as most people are paid by the hour, it costs more too.
Proofreading data - this method involves someone checking the data entered against the original document. This is time-consuming and costly.
Validation is an automatic computer check to ensure that the data entered is sensible and reasonable. It does not check the accuracy of data.
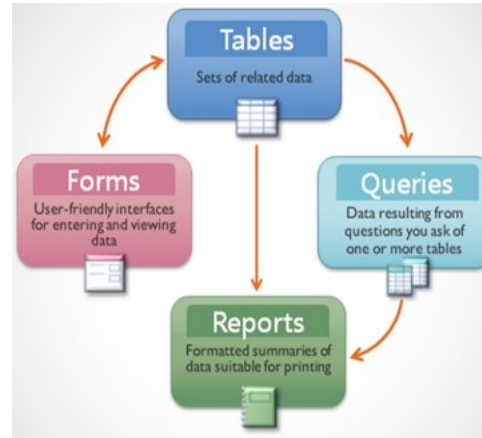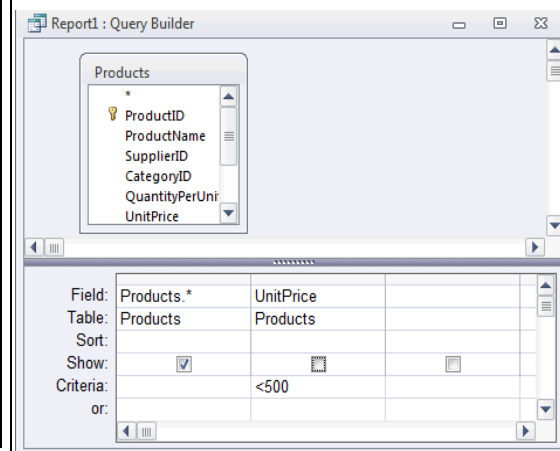
Why we use Databases?

- Databases can store very large numbers of records efficiently (little space needed).
- It is quick and easy to find information.
- It is easy to add new data and to edit/ delete old data.
- Data can be searched easily, e.g. 'find all Ford cars'.
- Data can be sorted easily, for example into 'date first registered' order.
- Data can be imported into other applications, for example a mail-merge letter to a customer saying that an MOT test is due.

Data Types

Text	Letterd, symbols and numbers. i.e alphanumeric data)
Number	Numbers only (no leters), includes numbers with decimal points
Date/ Time	Dates and times in lots of different formats (24 hour/ 12 hour, full date/ short date)
Currency	For all data that needs to be shown as money. The software will automatically insert a £ before the amount.
Yes/ No	Sed for whenever the field can only take 2 value Yes/ o, True/ False.
Auto-number	The is a unique value generated by the software for each record.

Query example

Find all the products that have a unit price of less than 500.

Term	Definition
Database	A data store designed in an organised way, making it easier to search for the information you need.
Record	All of the data relating to one entity in a database.
Field	An element of a database record in which one piece of information is stored. For example 'name' in an electronic address book.
Flat-file database	A database in which all the data is stored in a single table is known as a flat file database.
Primary Key Field	A unique identifier for a database record or table entry.
Form	Just like a paper form that you fill in, we can make electronic forms that people can input data into a system
Query	A search or question performed inside a database.
Criteria	A set of rules or conditions that must be met. Often used in searches.
Report	Selected data presented in a more readable and professional way, including any company branding
Validation	Checking input data is sensible and in the right format.
Verification	Verification is performed to ensure that the data entered exactly matches the original source.
Data Types	The data type of a value that tells the system what kind of data that value can have.

IT skills