

Unit 8.2

Superhero Database



Key Word Vocabulary

During this unit you will hear the following key words. Make sure you listen carefully to each lesson as you may be asked questions at any time.

Database

Table

Record

Field

Data

Query

Form

Paper-Based

Report

Computerised

Primary Key

Data Types

Examples of Databases

Example 1

The simple super hero database

Example 2

The complex student database

Searching a Simple Database

- One of the advantages of a computer-based database was that they are very easy and quick to search.
- Consider this scenario:
 - Professor Xavier (leader of the X-Men) is looking to recruit some new super-heroes.
 - Xavier wants you to search for super heroes that have particular traits such as heights and hair colour.
 - You have been provided with a database of super heroes that may be suitable. Your job is to search the database to come up with the name of the super hero that best matches desired traits.

Super Hero Search



Data Types

1 Data Types

There are many different kinds of data that you might come across, for example text, images, numbers, money, dates.

A database likes to store these different types of data in a specific way.

It is important that you can recognise the correct data type for each field.



Text

2 Text

A 'Text' datatype will be used for fields which contain text.

Examples include: name, hair colour, favourite food

This datatype will also be used for fields which contain a mixture of letters and numbers.

Examples include: postcode (e.g. CV42 9TR) or car registration number (e.g. EA52 EAL)



Number

3 Number

A 'Number' datatype will be used for fields which only contain numbers.

They can contain whole numbers, e.g. 5, 199

They can contain decimal places e.g. 8.76

They can contain negative numbers e.g. -2.31

Examples of fields which would use a number datatype might be:

- shoe size
- height
- exam mark



Date / Time

4 Date / Time

A 'date / time' datatype will be used to store any data which is a date or which is formatted as time.

Examples include:

- Date of birth
- Date you started school
- Time of doctor's appointment
- Time that a TV program is due to start

This datatype will let you choose how the date or time is displayed, for example:

- 14th May 2007
- 14 May 07
- 14/05/2007
- 14/05/07



Currency

5 Currency

A 'currency' datatype will be used to store data about money.

It can be stored in U.K. pounds (£) or dollars (\$), in euro's or any other World currency.

The data type will allow you to set up the money with 0, 1 or 2 decimal places e.g.

£99

£9.99



Yes / No

6 Logical / Boolean

A 'Logical' or 'Boolean' datatype is sometimes known as a 'Yes/No' datatype.

Basically, it is used when a field can only have two options and no more. Examples include:

- Yes / No
- Hot / Cold
- On / Off
- Male / Female
- Right / Wrong



AutoNumber

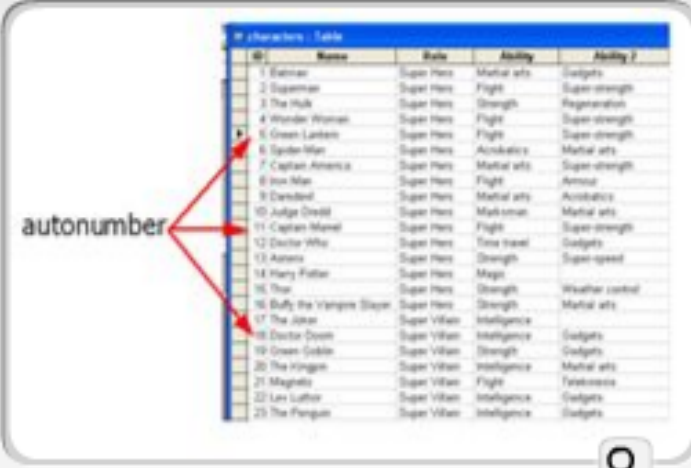
8 Autonumber

This is quite an important datatype. Every record in a database table needs something to uniquely identify it. This is called the 'Primary Key' **data types**

Every bank customer has their own unique bank account number. Imagine how annoyed the customer would be if the bank just took a guess as to which John Smith's account to pay a cheque into.

You probably have a student number. That will be your unique primary key in the school database.

Autonumber can be set up on the 'Primary Key' field. Every time you enter a new record into the database, the 'autonumber' datatype will automatically give it a new and unique number.



The screenshot shows a database table titled "Characters" with the following columns: ID, Name, Role, Ability, and Ability 2. The "ID" column is highlighted in blue, indicating it is the primary key. A red arrow points from the word "autonumber" to the "ID" column. The table contains 23 rows of data, including characters like Batman, Superman, The Hulk, Wonder Woman, Green Lantern, Spider-Man, Captain America, Iron Man, Daredevil, Judge Dredd, Doctor Who, Captain Marvel, Doctor Who, Ant-Man, Mary Poppins, Thor, Buffy the Vampire Slayer, The Joker, Doctor Doom, Green Goblin, The Winger, Magneto, Lex Luthor, and The Penguin.

ID	Name	Role	Ability	Ability 2
1	Batman	Super Hero	Martial arts	Gadgets
2	Superman	Super Hero	Flight	Super strength
3	The Hulk	Super Hero	Strength	Regeneration
4	Wonder Woman	Super Hero	Flight	Super strength
5	Green Lantern	Super Hero	Flight	Super strength
6	Spider-Man	Super Hero	Acrobatics	Martial arts
7	Captain America	Super Hero	Martial arts	Super strength
8	Iron Man	Super Hero	Flight	Armor
9	Daredevil	Super Hero	Martial arts	Acrobatics
10	Judge Dredd	Super Hero	Marksmanship	Martial arts
11	Captain Marvel	Super Hero	Flight	Super strength
12	Doctor Who	Super Hero	Time travel	Gadgets
13	Ant-Man	Super Hero	Strength	Super speed
14	Mary Poppins	Super Hero	Magic	
15	Thor	Super Hero	Strength	Weather control
16	Buffy the Vampire Slayer	Super Hero	Strength	Martial arts
17	The Joker	Super Villain	Intelligence	
18	Doctor Doom	Super Villain	Intelligence	Gadgets
19	Green Goblin	Super Villain	Strength	Gadgets
20	The Winger	Super Villain	Intelligence	Martial arts
21	Magneto	Super Villain	Flight	Telekinesis
22	Lex Luthor	Super Villain	Intelligence	Gadgets
23	The Penguin	Super Villain	Intelligence	Gadgets

Which Data Type?

9, Oak Street, Worcester



14th May 2007

£9.75



-2256



Which Data Type?

lion

324.654

\$5.76

Enter / Exit

