Advantages of relational databases
Less data entry / data is stored only once / avoids duplication of data
Less inconsistency of data
Easier to edit data / records
Easier to edit data / record format
Easier to add / delete data / records
More complex queries can be carried out
Better security
More ability to cater for future requirements / expansion

Disadvantages of relational databases
More complex than a flat file database as more tables are required
Takes more time to set up
More of a reduction in performance if many tables are needed
Slower extraction of meaning from data
Less robust due to broken keys and records / each table requires a key field
and relationships to other tables
More developer expertise / personnel to run the database:
More expensive to create a relational database
More processing power needed for complex queries.

Advantages of flat file databases
All records are stored in one place
Easier to understand / use
Sorting is simpler
Filtering is simpler
Can be used with a spreadsheet / single table DBMS

Disadvantages of a flat file database
Data is more likely to be duplicated / difficult to stop duplication
Records can be duplicated and the flat file will not stop this
Harder to update
Every record in the database has to have the same fields, even though many
are not used
Harder to change data format
Harder to produce complex queries
Almost no security

A foreign key is used to link tables together and create a relationship. It is a field in one table that is linked to the primary key in another table.

every single record in a database has something to **uniquely identify** it and this is called the 'Primary Key' or sometimes the 'Key Field'.