

# Databases

## Data and Information

While data is known, discrete facts that have been stored and recorded, information is data placed in context and presented. It is much more useful to humans. SQL is a tool for extracting information from a database.

## Metadata

Metadata is *data about data*. For example type, length or description. It helps us to keep data storage consistent, useful and meaningful.

A database is a large, integrated, structured collection of data, used to model some real world enterprise as entities and relationships. A Database Management System or DBMS is used to interface with a database. Databases differ from simple programs interfacing with files by avoiding redundancy and ensuring consistency. They also allow better file sharing and can improve development speed and reduce maintenance.