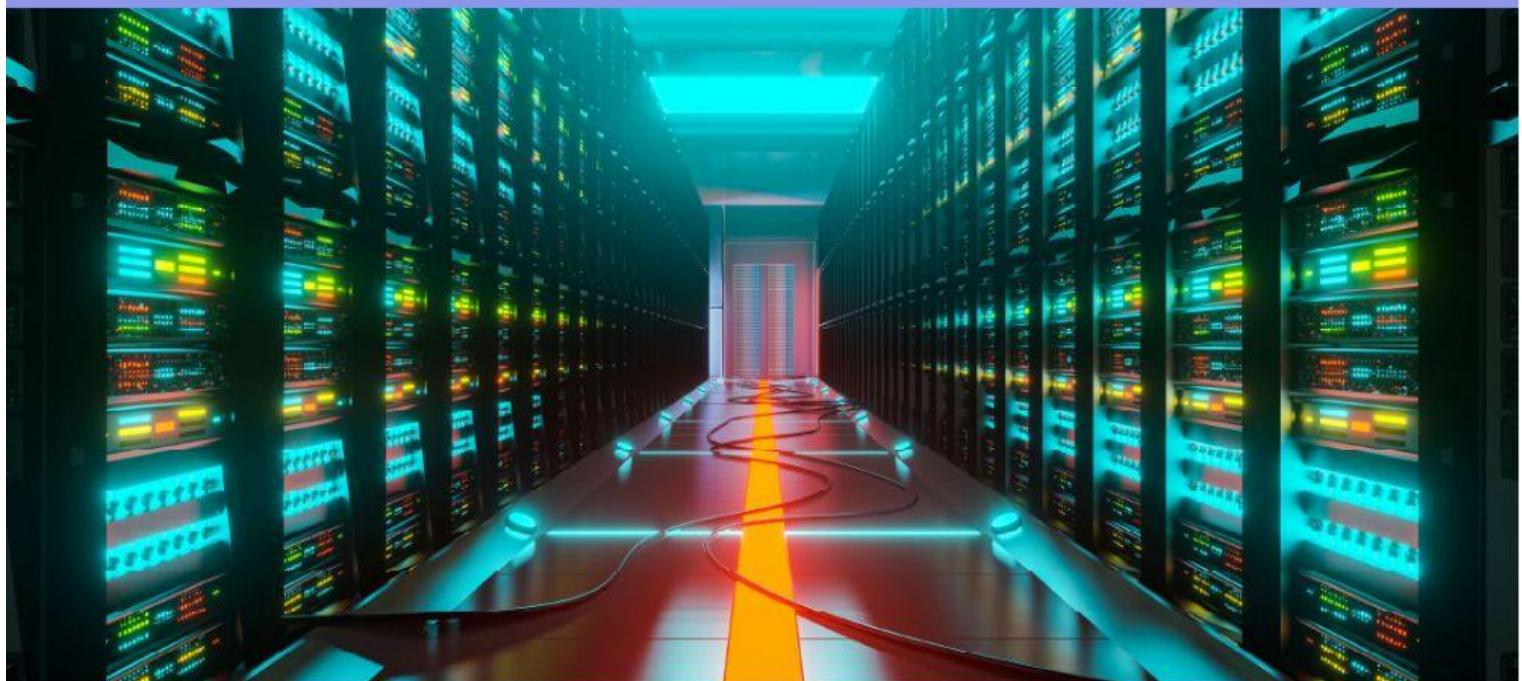# THE DIGITAL WORLD

LEVEL 1 • UNIT 2

DATABASES

A database is an organized collection of information or data typically stored electronically in a computer system. A database is usually controlled by a database management system (DBMS). Together, the data and the DBMS, along with the applications that are associated with them, are referred to as a database system, or just database

Data within the most common types of databases in operation today is typically modeled in rows and columns in a series of tables to make processing and data **querying** efficient. The data can then be easily accessed, managed, modified, updated, controlled, and organized. Most databases use structured **query language** for writing and querying data.

READING 2

SKILLS

- Details

Scanning

- Connecting information

GETTING STARTED:

Do you know what a database is?

Evolution of the database

Databases have evolved dramatically since their introduction in the early 1960s. Navigational databases such as the hierarchical database and the network database (a more flexible model that allowed multiple relationships) were the original systems used to store and manipulate data. Although simple, these early systems were inflexible. In the 1980s, relational databases became popular, followed by object-oriented databases in the 1990s. More recently, NoSQL databases were introduced as a response to the growth of the internet and the need for faster speed and processing of unstructured data. Today, cloud databases and self-driving databases are breaking new ground when it comes to how data is collected, stored, managed, and used.

*Adapted from https://www.oracle.com/database/what-is-database/

Glossary:

- **Query:** A query is a request for data or information from a database table or combination of tables.

- **Query language:** Query language (QL) refers to any computer programming language that requests and finds data from database and information systems by sending queries.

Complete these statements about databases using information from the text.

1._____ is a systematic compilation of information.

2. Data is structured in _____ and _____.

3. _____ language predominates in most databases.

4. Databases were _____ back in the sixties.

5. _____ is a more adaptable type of database.

6. _____ adapt to the need of quick connections and information that is not structured.

Language Note – Past Simple

- The hierarchical database and the network database were the original systems used to store and manipulate data.
- In the 1980s, relational databases became popular.

We use the past simple to talk about past actions or states, often with time expressions such yesterday, one month ago, in 1996, last week, when I was young, etc.
- Google **began** in January 1996 as a research project.
- George Stanley **sculpted** the "Oscar", the award that is given at the Academy Awards.

To form the past simple in affirmative sentences, add -ed to regular verbs.
- I **climbed** that mountain three years ago.
- We **stayed** in a nice hotel on our vacation.

Language Note – Past Simple

Some verbs are irregular:
- We **flew** to the coast on the weekend.
- Jane **wrote** her second novel in just three months.

We use the auxiliary verb *did* in questions and negative sentences.
- **Did** you find your wallet?
- I **didn't** play the game on Sunday because I was injured.

What do you think?

Think of real-life examples where databases are used. Can you name some of them?