

## Introduction to RDBMS

### What is RDBMS?

- **RDBMS** stands for **Relational Database Management System**.
- It is a software system that is used to manage relational databases.
- A **relational database** is a type of database that organizes data into one or more tables, each of which has a unique key.
- RDBMS systems use **SQL (Structured Query Language)** to manipulate data within these tables.

### Advantages of RDBMS

- The main advantages of using an RDBMS are:
  1. **Data integrity:** RDBMS systems enforce data integrity by ensuring that data is consistent and accurate. This is achieved through the use of constraints, such as primary keys, foreign keys, and check constraints.
  2. **Scalability:** RDBMS systems can handle large amounts of data and can be scaled to accommodate increasing amounts of data.
  3. **Data security:** RDBMS systems provide robust security mechanisms to protect data from unauthorized access.
  4. **Data consistency:** RDBMS systems ensure that data is consistent across tables and can enforce relationships between tables.

### Popular RDBMS systems

- Some examples of popular RDBMS systems include **MySQL, Oracle, SQL Server, and PostgreSQL**. RDBMS systems are widely used in businesses and organizations to manage their data efficiently and effectively.