

1. Data is a collection of information gathered by observation, measurements, research/analysis.

examples can be numbers, names, objects, images, texts...

2. Information is the processed form of data, it's a fact that is provided or learned about something or someone.

3. Database is a systematic collection of related data that represent some real world entities.

4. RDBMS is a software application that interacts with users, applications, even the database itself to capture and analyze data.

5. Uses of RDBMS

- can easily manage large amounts of information.
- security
- backups

6. Relational database/SQL - store data in the form of a table.

Non relational database/no SQL - stores data in the form of a document.

7. Examples of relational database Oracle, MySQL, Microsoft SQL

8. Examples of non relational database Mongo database, couch database.

9. SQL is a relational database which is used for accessing and managing databases. We use it to define tables and structures.

10. DDL - Data Definition Language

- Used to change or modify the structure of a database.
- We can do things like deleting table, creating table,
- It auto commits the changes we make permanently.

DML - Data Manipulation Language

- It manipulates the stored data.
- It uses commands like insert, select, delete, update.
- It does not auto commit the changes we make.

DCL - Data Control Language

- It allows us to control access to the database; granting or revoking access to the database.

TCL - Transaction Control Language

- commands used to manage the changes made by DML.
Eg: commit, savepoint, transaction, rollback.

11. Table is a basic element of relational databases. It stores data in tabular format and means the system organizes data in rows and columns.

12. Row is a series of data put horizontally in a table/spreadsheet, while column is a vertical series of cells in a table/spreadsheet.