sql => Structured query language

Database : A large volume of information / Data

DBMS is a Software that stores and manages large amount of data

When DBMS is introduced there are some companies

Oracle

Sybase

Informix

Microsoft

Initially DBMS is maintained individually to store data . later there is a need to connect the database to software

The software developed using a programming language is connected with the DBMS.

Java was the first programming language to give a hand to connect the software developed using java with database.

DBMS software gave a structured way / well organized way to store the data

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Each row is called as a record ( green coloured portion )

Maintaining a large amount of data in a single table is not so easy

Eg: consider a passport of a person it has a lot of information like , address , mobile number ,

Face id , parents name, nationality , gender , Iris data , passport validity etc . maintaining a lot of information in a single table is difficult to maintain sometimes

To solve this problem we use RDBMS (Relational Database Management System)

Here information is stored in multiple tables and all the tables are connected .

Some of the popular RDBMS are

My SQL

PostgreSQL

Oracle Server

SQL Lite

MariaDB

SQL is a language and the above are databases

SQL is a Structured Query language using this language you can store data in RDBMS databases

NoSQL Databases are

When you are dealing with bulk data processing then it is not recommended to store the data in the rows and columns , then we should go with NoSQL

Some of the NoSQL databases are

MongoDB

Cassandra

Hbase

In NoSQL Databases the data is stored in the form of key – value pair, Graphs , Documents etc

Here data is not stored in a structured way. To perform operations in these databases , they doesn’t have a common language like SQL , each database have their own language and methodology .

SQL is case insensitive

Usually sql commands are written in uppercase

Note : Some RDMS use “ ; ” at the end of the statement , and some doesn’t use semicolon , so better learn by writing semicolon at the end of the statement .

Recommended Naming Conventions

For Database names , table names variable names it is recommended to use lower case

For SQL commands , clauses , constrains which are predefined in SQL ,that is recommended to use in upper case.

In MySQL Schema and Database is same .