

SQL - STRUCTURED QUERY LANGUAGE

1) What is SQL?

SQL (structured query language) is used to interact with databases. It is used for querying, updating and managing data.

(2) Database - A storage of records which can be used to interact with data is called database

eg - CD, SSD, HDD, memory written records, image album but it was to distinct from one and another. If we needed to extract info about a single object then we need to interact through all records manually.

1970 - Concept of Relational database

C. F. Codd - computer scientist work with I.B.M publish an article about relations in database

1974 - IBM Researchers developed SQL.

Donald D. Chamberlin and

Raymond F. Boyce released.

SEQUEL - Structured English Query Lang. but due to copyright of name it not last long so convert to SQL

SQL - A Programming / Scripting language that is used to interact with Database (Relational)

1976 - ANSI

1987 - ISO

SQL was standardised by ANSI in 1986 & by ISO in 1987

Oracle
Oracle database
MySQL
PostgreSQL
N2

Microsoft
MS-SQL
SQL Server
management system
SSMS

IBM
DB2
Data Stage

today Oracle - largest cloud base data management company
MySQL - managed designed, update by oracle open sourced

today Microsoft - SQL server management system is known
for reliable, seamless integration, documentation
support

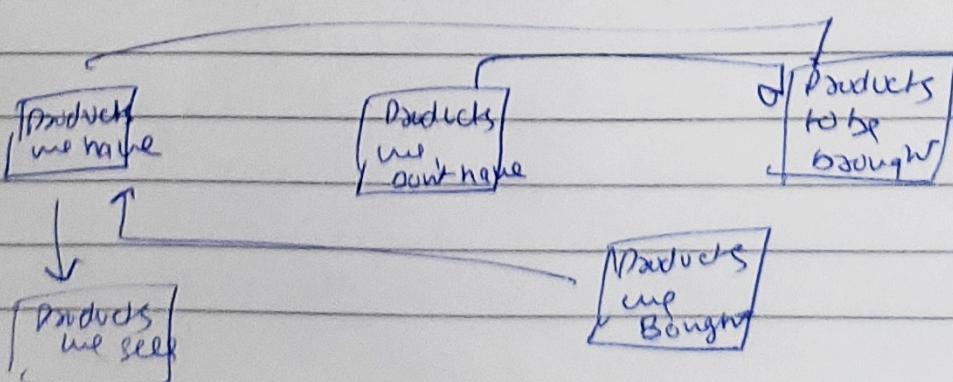
Database management software tools that manages database
systems - and Data in them.

if Database is relational then it is Relational Database.
else Database is not relational hence called non
relational

Relational means?

Image, audio, video Books if we have multiple of
them it is hard to find one we need, info we need,
or establish relation b/w them

Relational database - database that stores information
in forms of tables and relation can be
analyzed or established b/w two or more table
if there is a Relation.



Non-Relational Database - information is stored in many forms they may be in image text, map, word, music, videos even in our own memory

START MySQL WORK BENCH

- Show databases;
- select * from table
- Alter table ABC rename to XYZ, (Q12)
there are a lot of commands & they all do variety of tasks. So, these commands are classified in few different ways

Type

DDL (Data Definition language) : Create, Alter, Drop

DML (Data manipulation language) : Insert, Update, Delete.

DQL (Data query language) : Select

DCL (Data control language) : Grant, Revoke

TCL (Transaction control language) : Commit Rollback

Data base Terminology -

Table : A collection of data in rows & columns.

Row : A single record

Column : A field in the table

Primary Key : Uniquely identifies each record

Foreign Key : References the Primary key in another table