

Database Management System (DBMS)

Data → info → text, values, audio, v... etc

Database → Organized collection of data

emp-name
emp-age
emp-sal

Structured → Table → SQL → MySQL
Unstructured → document → MongoDB

DBMS → Software/appli → Manage → Create, delete, update, retrieve, read
CRUD

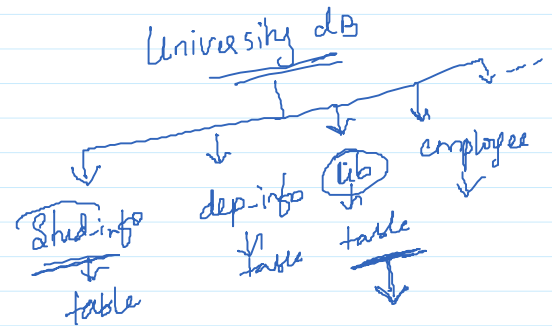
Why DBMS?

- Data Redundancy → Avoid duplicates
- Data Security → Authorized users
- Multi users →
- Data Consistency → Uniform

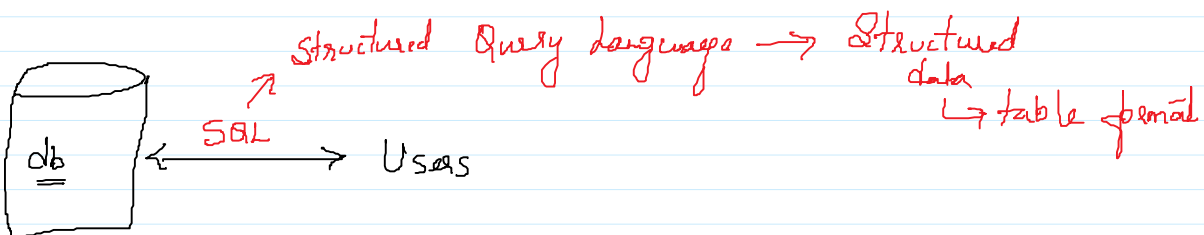
employee		
empid	emp-name	dept
1	Chetan	2
2	Pratima	1

dept		
dept	dept-name	dept
1	KVZ	A
2	abc	B

dept → x



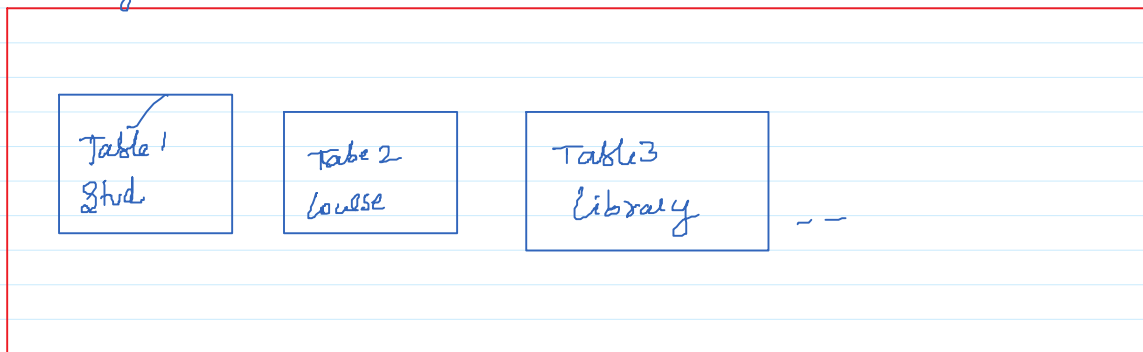
HDFC →
SBI



DBMS → MySQL, DB2, Oracle, ... MongoDB

DBMS → (MySQL, DB2, Oracle, ... - MongoDB)

College DB



① Rv_college_db

Sid	Sname	Sage	Sdob
1	Amit	18	2004-12-03
2	Charan	21	
3	Diya	22	
4	Fathi	19	

data type
↓
int =
↓
char
↓
int d

② create table
↓
Student-info

dob → "YYYY-MM-DD"

db — Table 1 → Stud_info
— Table 2 → Course_info

In MySQL → data types

- int →
- char → alpha
- varchar → alpha or alpha num
- date → YYYY-MM-DD
- numeric → decimal

Spreadsheet

ES001	Amit	25000 MANGER	03-12-2021	30			
ES003	CHARAN	30000 SALES	03-10-2023	30			
ES004	DIYA	80000 ADMIN	09-11-2022	25			
ES006	SARAVANAN	80000 Manger	08-05-2014	45			

Spreadsheet

[illegible]

- ① Create database microsoft-db,
- ② Use microsoft-db;
- ③ Table → employee-info

emp_id	emp_name	emp_salary	emp_role	emp_doj	emp_age
ES001	Amit	25000	MANGER	03-12-2021	30
ES003	CHARAN	30000	SALES	03-10-2023	30
ES004	DIYA	80000	ADMIN	09-11-2022	25
ES006	SARAVANAN	80000	Manger	08-05-2014	45

Unique + Not Null
↓
Not Null
↓
Primary Key

Table \rightarrow One col should have
Unique + NOT Null \rightarrow Primary Key

Empemail \rightarrow Unique + not null

Primary
emp-id | emp_email

① data type

empid \rightarrow Varchar (10)
emp_name \rightarrow Varchar (25)
emp_salary \rightarrow int
emp_note \rightarrow Varchar (15)
emp_doj \rightarrow date
emp_age \rightarrow int

(2) Constant

→ emp-id should uniq
 ↳ should Not
 NULL
 → emp-name → Not NULL

Sid	Sai	3_email
1		
2	Pallavi	
3	Groshan	
4	Rohan	

Unique + NOT Null → primary
 Table → 1 primary key — Emp-id

{

 → NOT NULL → cond 1

 → Unique Value → cond 2

 } Primary key