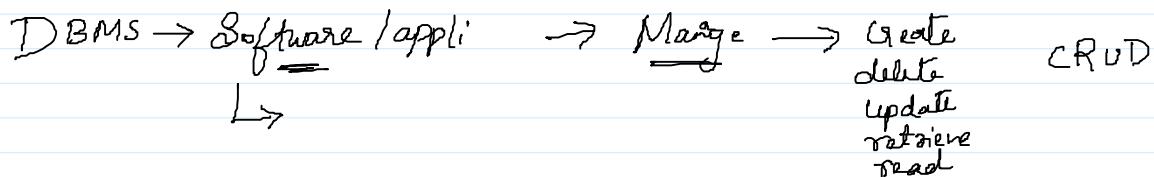
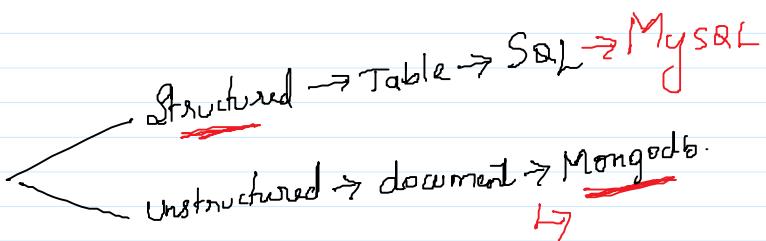


Database Management System (DBMS)

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

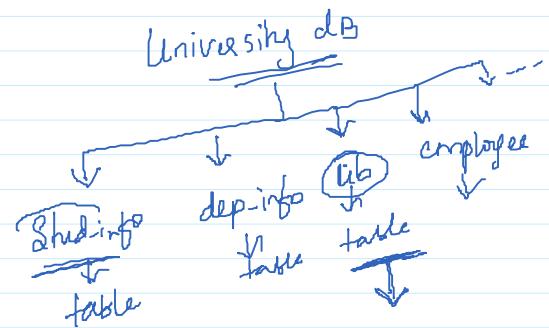
Database → Organized collection of data

↓
emp-name
emp-age
emp-sal



Why DBMS?

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

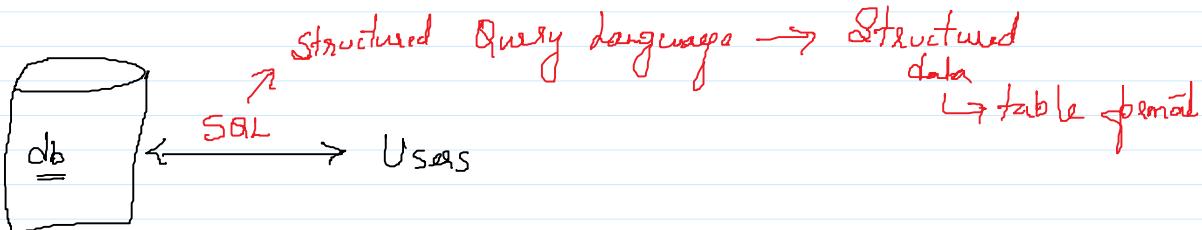


employee		
empid	emp-name	dept
1	Chaitanya	2
2	Anitha	1

dept		
dp	dept-name	dh
1	xyz	A
2	abc	B

dept → X

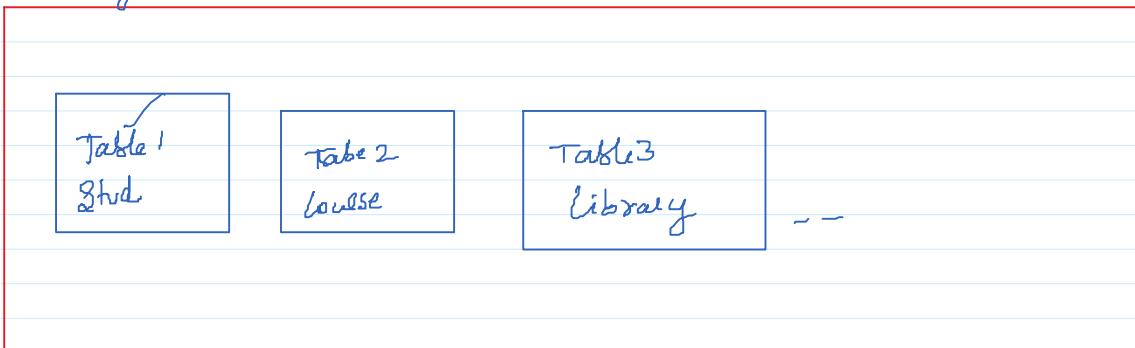
HDFC →
SBI



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

DBMS → (MySQL, DB2, Oracle, PostgreSQL, MongoDB)

College-db



① RV_college-db

sid	sname	sage	sdob
1	dmit	18	2004-12-03
2	charan	21	
3	diya	12	
4	Fatima	19	

↓
↓
↓
↓
data type int char int d

② create table

↓
student-info

↓
Table 1 → Stud_info
Table 2 → Course_info

dob → "YYYY-MM-DD"

In MySQL → data types

→ int →
→ char → alpha
→ Varchar → alphab & alpha
→ date → YYY-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

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		

- 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

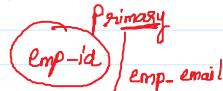
Unique + Not NULL No Condition ↴ NOT NULL ↵ No Condition ↓ emp>18

Primary Key

Table → One Col Should have

Unique + Not Null \rightarrow Primary Key

Emp_email → Unique + not null



- ## ① datatype

empid → Varchar(10)

emp-name → Varchar(25)

Cmp-Salary → int

`emp-role` → Varchar(15)

emp-doj → date

emp-age → int

- ## (2) Constraint

→ emp-id should unique

→ should NOT null

\rightarrow emp-name \rightarrow Not NULL

