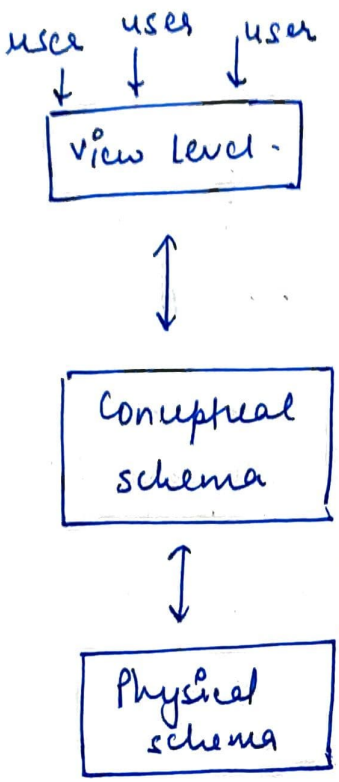
Lec 7 - Data Independence

↳ any information about data is hidden from the user.



} Logical Data Independence

↳ information related to table schemas, relations bet. different tables etc.

} ↳ Physical Data Independence

Location or data files are hidden from the user.

→ Changes in conceptual schema does not affect view level. This is logical data independence.

→ Changes in physical schema does not affect conceptual schema. This is physical data independence. For ex. hard disk change, Data structure change in actual database does not affect conceptual schema.

- Thus, data independence makes it easy to incorporate changes without affecting the user.

Lec 8 CANDIDATE KEY, PRIMARY KEY

→ what is key ? → attribute

→ use of key ? → to uniquely identify a tuple of information.

→ key can be any numbers that uniquely identifies

For ex. for a student database, key can be.

(i) Aadhar card number
(ii) Roll Number
(iii) Phone Numbers.
(iv) License Number.
(v) email.

→ Collection of all possible keys is called CANDIDATE KEY

CANDIDATE KEY = < Aadhar no', Roll no', Phone number, License no', email >

→ Most appropriate key used is called PRIMARY KEY.

→ Rest of the keys from CANDIDATE KEY are called ALTERNATIVE KEY.

Lec-9 PRIMARY KEY = {Unique + Not NULL}

Candidate keys → unique

It is not necessary that all fields in CANDIDATE KEY will be NOT NULL. For, ex., it is possible that a student has not given phone number.

Lec 10 Foreign key

↳ It is an attribute or set of attributes that references to primary key of same table or another table (relation).

* → maintains referential integrity

ex.

Student

Pk

Roll NO	Name	City
1	A	Delhi
2	B	Mum
3	A	Jaip
4	C	⋮
.		
.		

Referenced table.

Base table

Fk.

Course id	Course Name	Roll no.
C_1	DBMS	1
C_2	OS	2

Course.

Referencing table