

Date: 21/9/24

* Types of SQL commands

3 DDL : Data Definition language

- a] CREATE
 - b] DROP
 - c] ALTER
 - d] TRUNCATE

3) DML : Data Manipulation Language

- a) INSERT
 - b) UPDATE
 - c) DELETE

3] DCL : Data Control Language

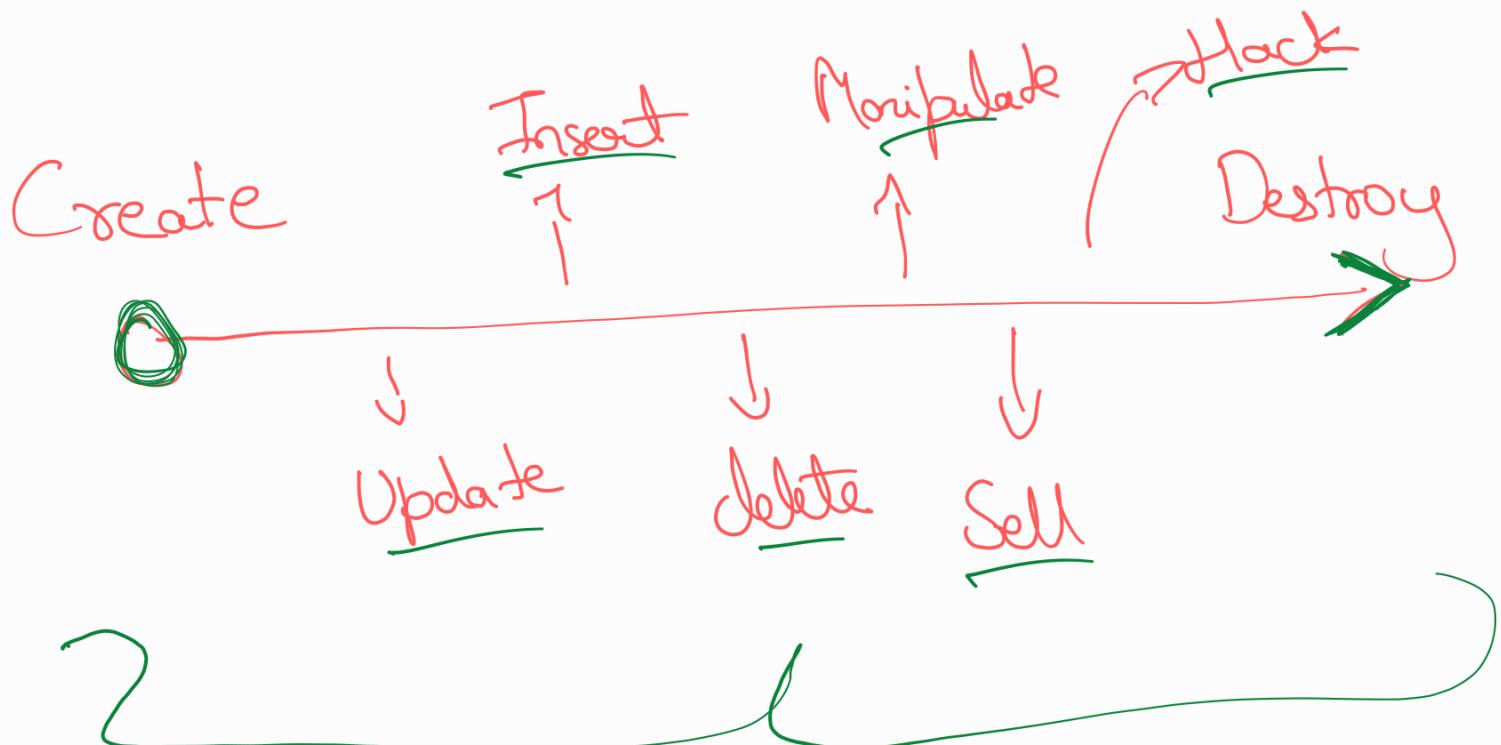
- a] GRANT
- b] REVOKE

4] TCL : Transaction Control Language

- a] COMMIT
- b] ROLLBACK
- c] SAVEPOINT

5] DQL : Data Query Language

- a] SELECT



SQL

Query : To create a table

1] Name of table : My Students DB ✓

2] Columns of my table :

a] Name : Text [25 chars]

b] Age : Number

c] Hobby : Text [15 chars]

a] Spreadsheet

Name	Age	Hobby

4] SQL :-

```
CREATE TABLE My-Student-DB (
    Name varchar(25),
    Age int,
    Hobby varchar(25)
);
```

4] SQL Data types :-

1] Numerical

✓ ↳ int [1, 40, 1230]

✓ ↳ float [1.6, 2.0, 1230.4657]

↳ big/small int

2] Date / Time

✓ ↳ Date [09/09/2024]

✓ ↳ Time [06:06:54]

✓ ↳ Date Time

✓ ↳ Timestamp

3) Character String

↳ Char

✓ ↳ Varchar (max)

↳ Text

4) Binary

↳ Binary

5) Miscellaneous

↳ Blob

↳ Clob

↳ XML

Not
that

→ JSON

6}

Unicode

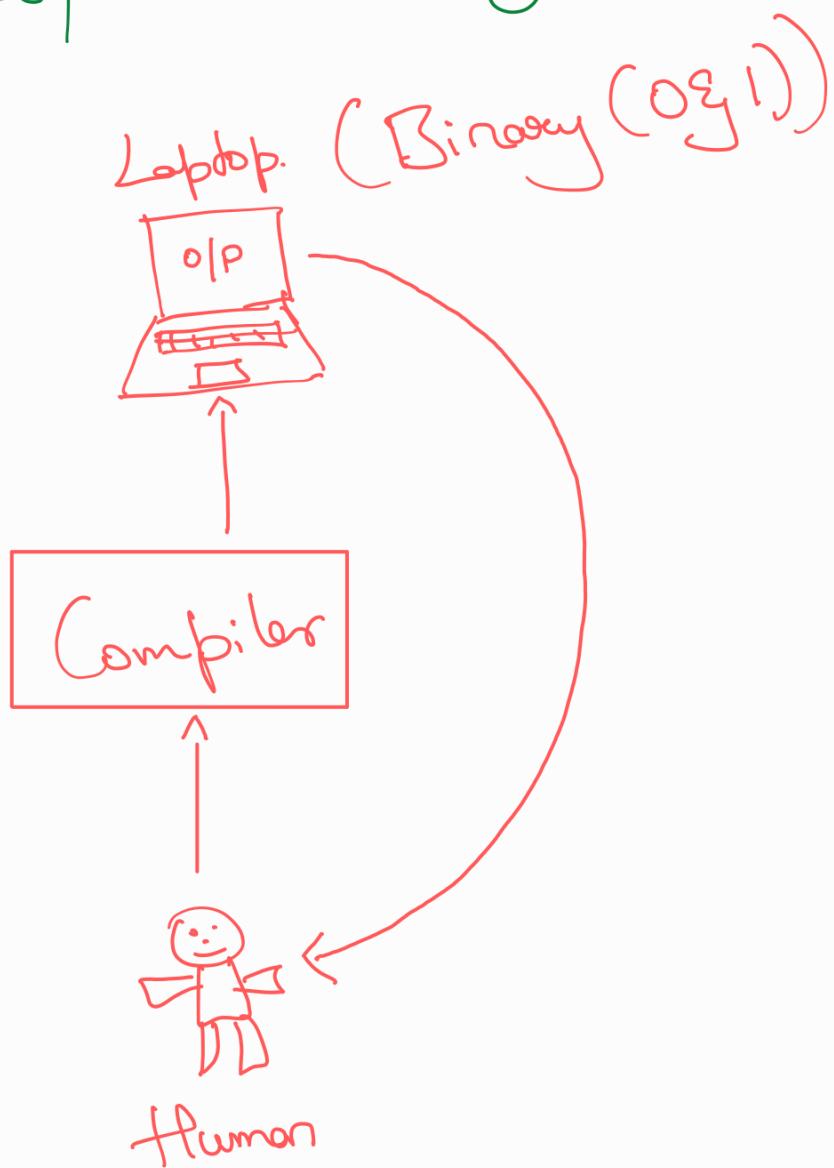
→ NChar

→ NVarchar

→ NText

Imp
for now..

Date :- 23/09/2024 (Monday)

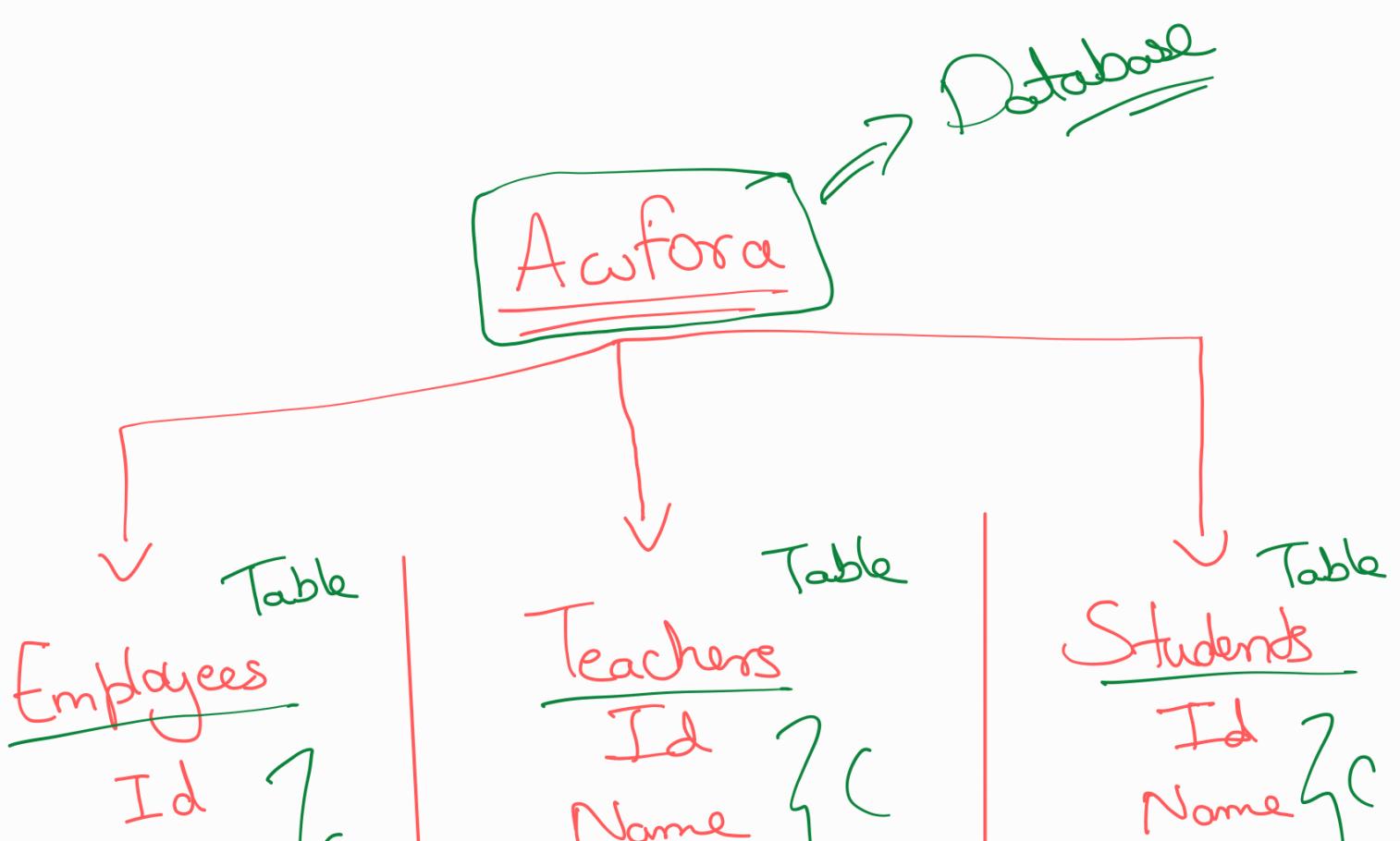


*] Offline SQL Compiler :

Workbench

Data base ✓

- ↳ Tables ✓
 - ↳ rows
 - ↳ columns
- ↳ Views
 - ↳ rows
 - ↳ columns.



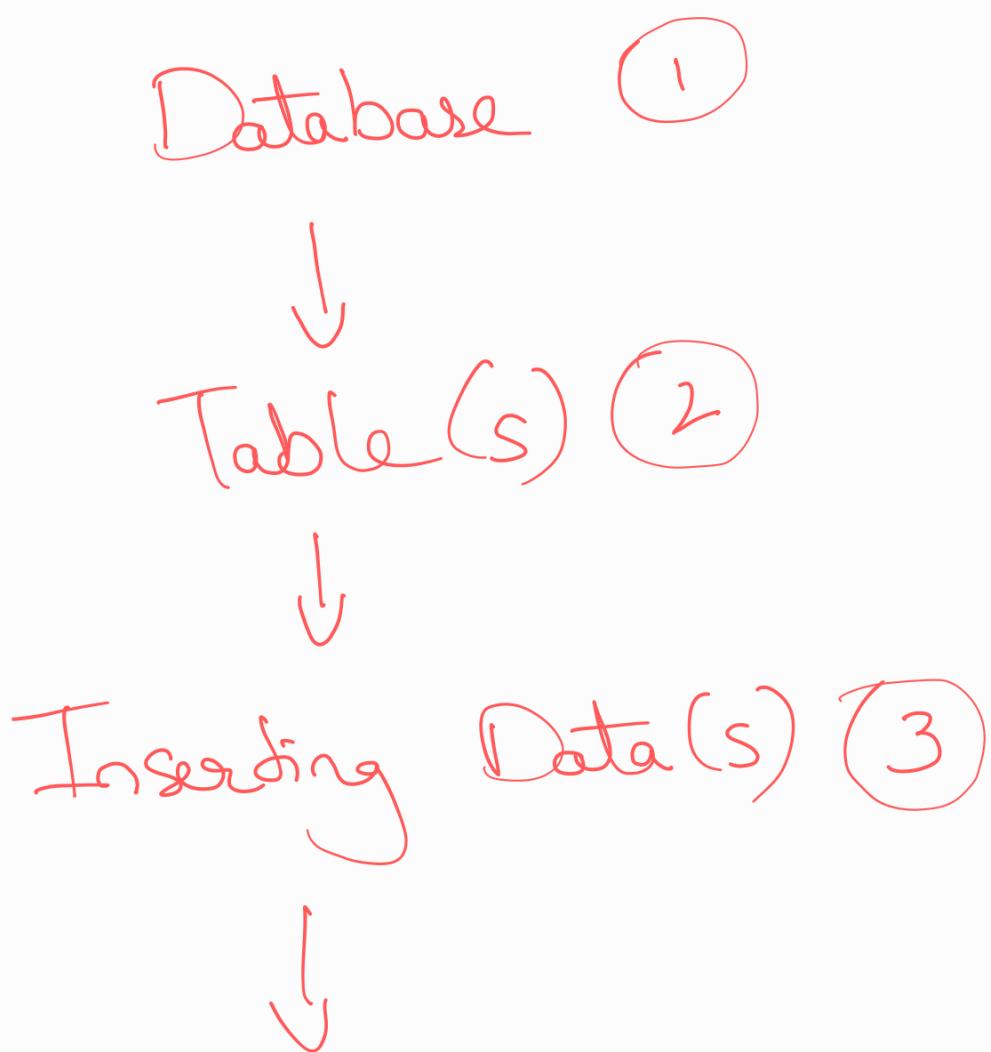
Name
Ph.no
Place
Position

Salary

Course

Full Time employee
in Amazon

Hierarchy



Querying ④

1] Creating Database [DB]

*] Show Databases;

*] Create database dbname;

*] Create table tablename (

testc1 int,

testc2 varchar(25)

);

*] ER Diagram

Dak: 2s (3/24)

Entity - relationship diagram

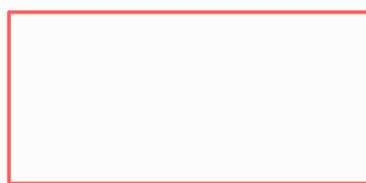


Any real life object

object

eg:- Cat, Dog, donkey,
vehicle - car, bike,
bottle.

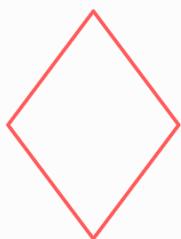
*] ER Diagram Symbols



\Rightarrow Entity



\Rightarrow Attribute



\Rightarrow Relationship.



\Rightarrow Connection b/w
entity - entity /
entity - attribute.



\Rightarrow Multi-valued

Attribute.

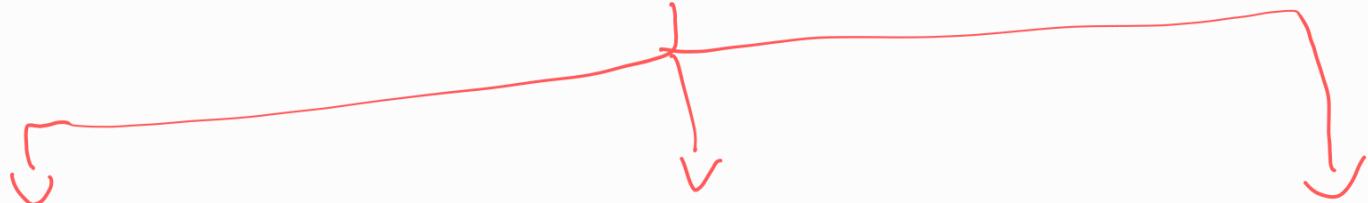
6



\Rightarrow Weak Entity

A] Components of ER Diagram

ER Model



Entity

- \hookrightarrow Strong
- \hookrightarrow Weak.

Attribute

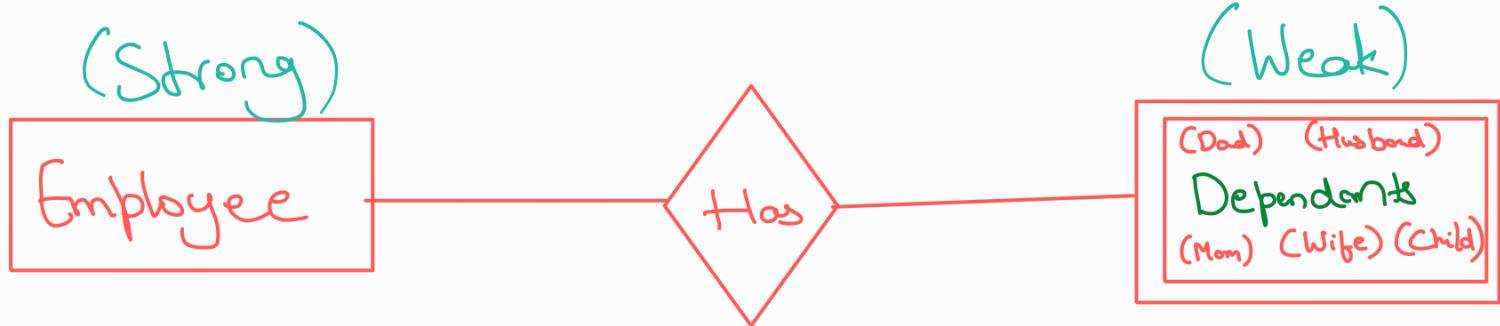
- \hookrightarrow Key
- \hookrightarrow Multivalued
- \hookrightarrow Composite
- \hookrightarrow Derived.

Relationship

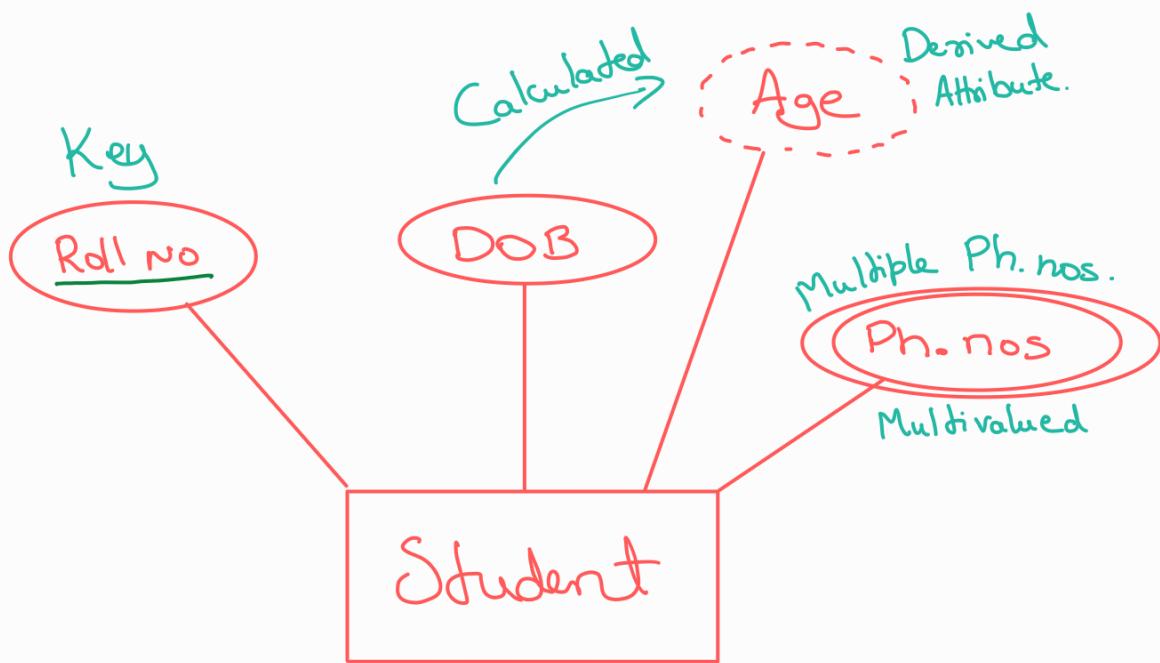
- 1 - 1
- 1 - M
- M - 1
- M - M

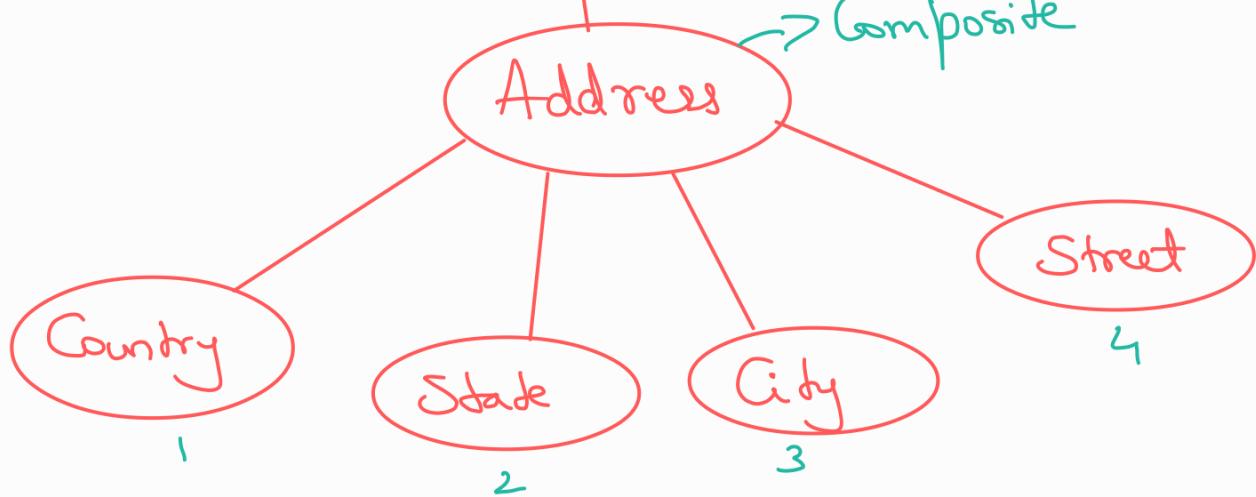
7] Entity Strong & Weak

Ibidity o strong weak.



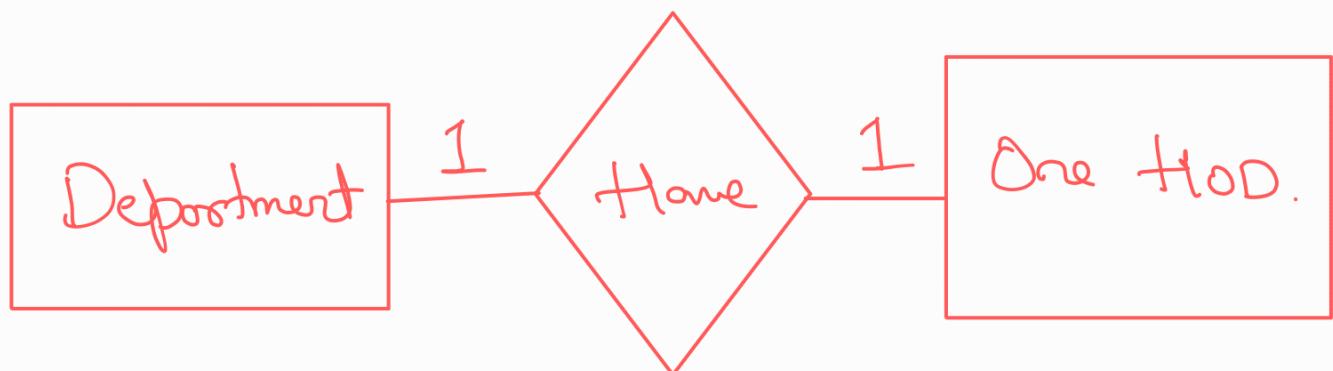
2} Attribute : Key
Multivalued
Composite
Derived .



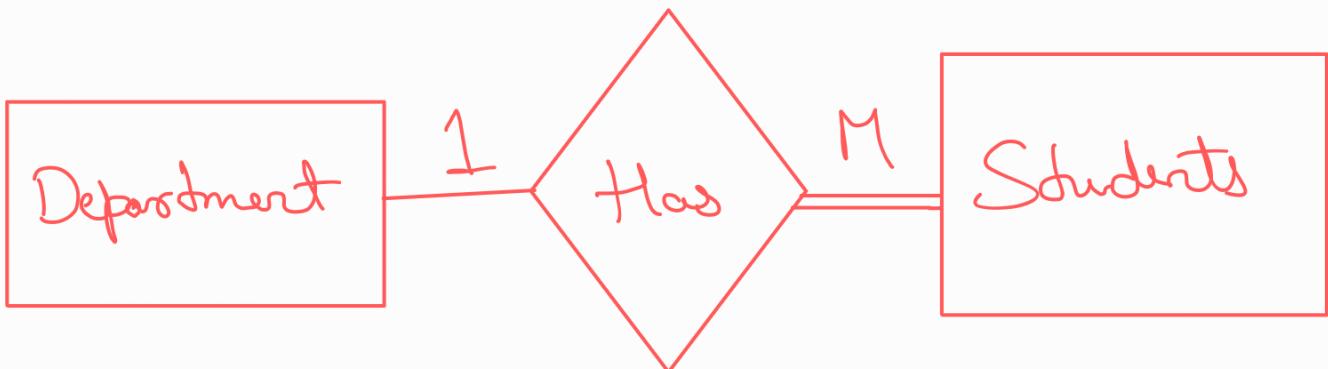


3) Relationship

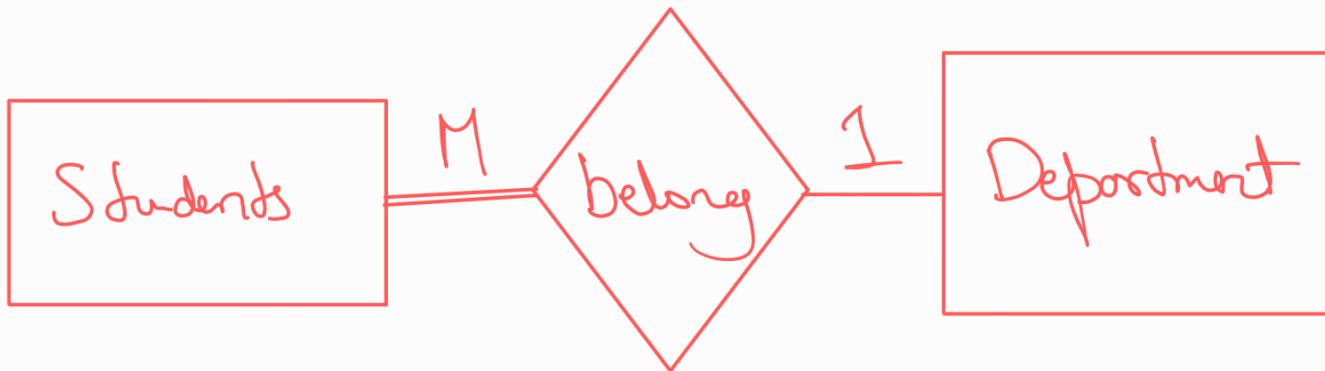
a) 1 - 1



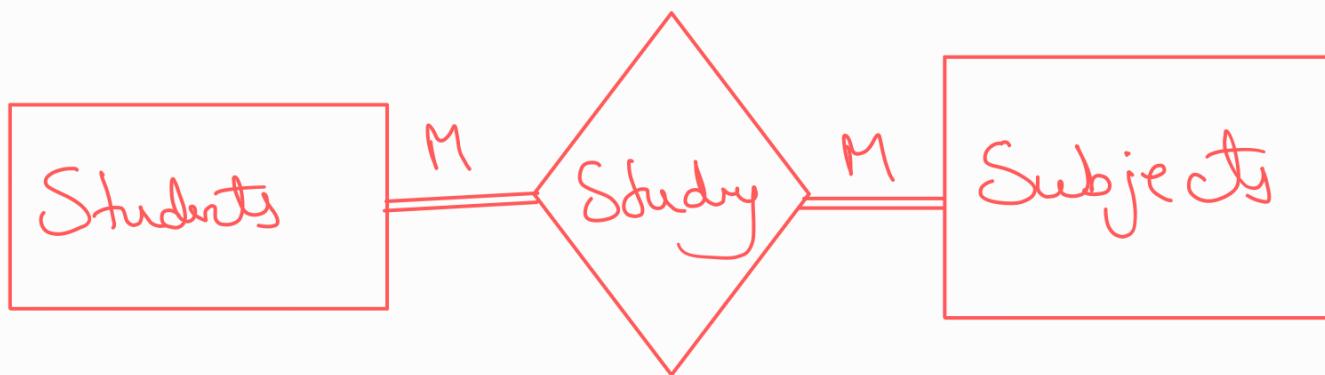
b) 1 - M



3) M-1



4) M-M



★ Primary & Foreign Key

~~V, C, H~~
Primary key

H
e

O. -

Aadhar - No	Name	Ph. No	Address
001	Jai	567	Bilawal
002	Hanumantha	568	Rajaji N
003	Koralkar	110	A.P.

Primary Key: Unique value
 Not Null
 Only 1 PK per table.

]} Foreign Key

Primary Key
 ↓
 S

Student ID	Name

1	Vandana
2	Chardona
3	Sreya



<u>Student ID</u>	Course Name
1	Data Analytics
2	Data Engineering
3	Data Scientist
3	Data Analytic

<u>Student ID</u>	Course Name	Name
1	Data Analytics	V
2	Data Engineering	C
3	Data Scientist	S

Foreign Key:- Duplicate
Null
Multiple FK.
