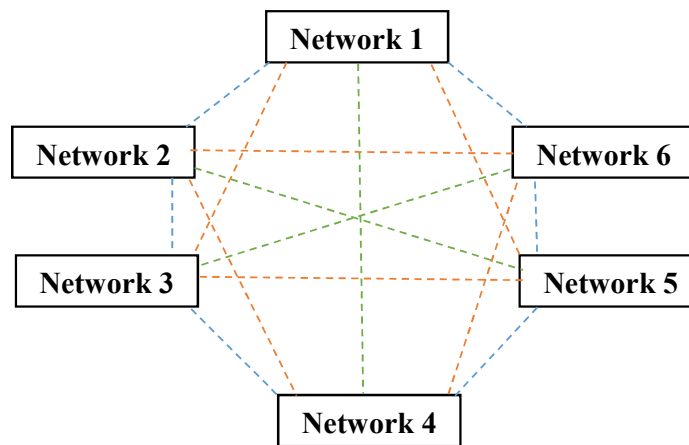


Types of DBMS

- Network DBMS
- Hierarchical DBMS
- Object Oriented DBMS
- Relational DBMS

Network DBMS

A database organized according to ownership of records, allowing records to have multiple owners and thus providing multiple access paths to the data.

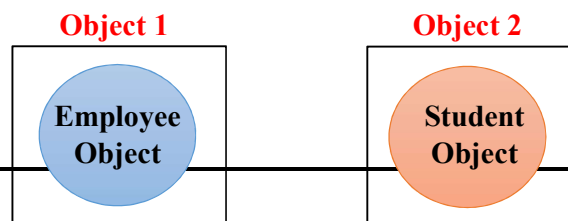


Drawbacks:

- Cost is high.
- High maintenance.
- Not secured.
- Source can't be found.

Object Oriented DBMS

Object Oriented DBMS is a database management system that supports the creation and modelling of data as objects.



System 1

System 2

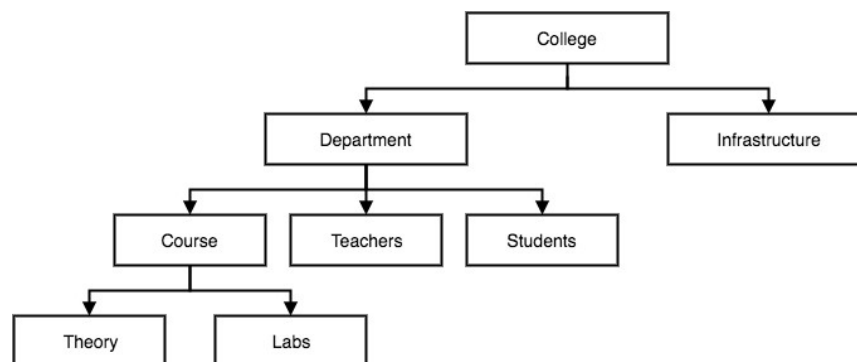
Drawbacks:

- Only one object can be created.

Hierarchical DBMS

The Hierarchical Model was the first database management system model. This concept uses a hierarchical tree structure to organise the data.

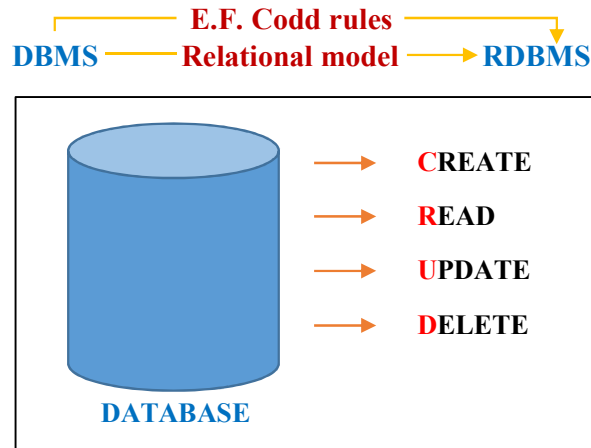
Ex: College DB

**Drawbacks:**

- While it is simple and easy to design, it is quite difficult to implement.
- If any data to be retrieved, the compiler checks each and every data which is time consuming.

RDBMS

- RDBMS is a DBMS software where we store the data in the form of **Tables** or **Relation**.
- If DBMS follows **Relational model**, then it is considered as RDBMS.
- If DBMS follows **E.F. Codd rules**, then it is considered as RDBMS.
- For communicating with RDBMS, we use **Structured Query Language**.



Relational Model

- Relational model has some set of protocol.
- It was designed by **E.F.Codd** in the year **1970**.
- In relational model, we can store the data in the form of **tables and relation**.
- In relational/ RDBMS, we can store **meta-data** in the form of tables/relation.

Note: Meta data means data about/within the data.

E.F.CODD Rules

- Data entered into a cell should be a **single value data or atomic data**.
- We can store data in multiple tables also we can **establish connection** any two tables by using **key attribute**.
- We can validate data by assigning **datatypes and constraints**.
- Datatype are mandatory but constraints are optional.

Questions.

1. What is the difference between DBMS and RDBMS?
2. What is the difference between SQL and MySQL?
3. What is the difference between an Excel Sheet and RDBMS?