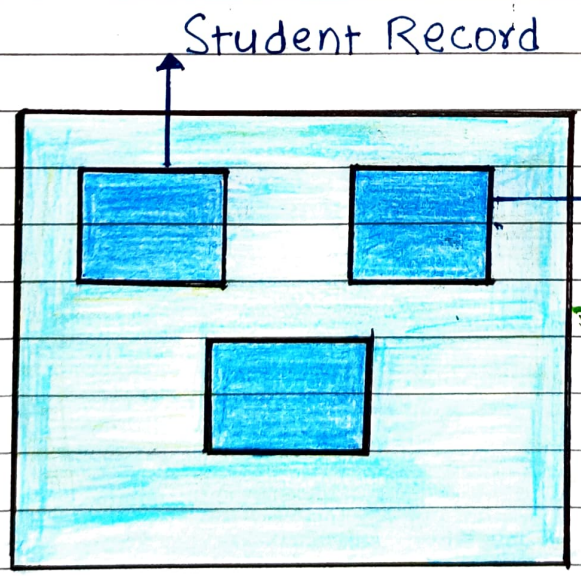
DBMS Interview Q/A

- What is DBMS and what is its utility? explain RDBMS with examples.

✔ DBMS stands for Data Base Management System, is a set of applications or programms that enable users to create and Maintain a database. DBMS provides a tool or an interface for performing various operations such as inserting, deleting, updating, etc., into a database. It is a software that enables the storage of data more compactly and securdly as comparative a file-based System.

Example of popular DBMS system are file system, XML, windows registery, etc.,



Employee record

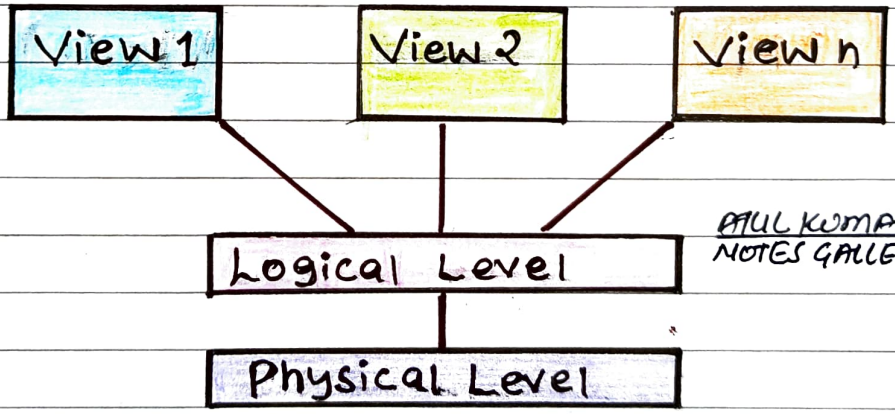
DBMS
(My SQL, Oracle, etc)

Program
(Website code)

RDBMS stands for Relational Database Management System and was introduced in 1970s to access and store data more efficiently than DBMS. RDBMS stores data in the form of tables as compared to DBMS which stores data as files. Storing data as rows and columns makes it easier to locate specific values in the database and makes it efficient as compared to DBMS.

Example of popular RDBMS systems are mySQL, Oracle DB, etc.,

- Explain different levels of data abstraction in a DBMS.



Three levels of data abstractions.

Physical Level : It is the lowest level and is managed by DBMS, this level consist of data storage descriptions and the details of this level are typically hidden from system admins, developers, and users.

Conceptual or logical level :

It is the level on which developers and System admins works and it determines what data is stored in the data base and what is the relationship between the data points.

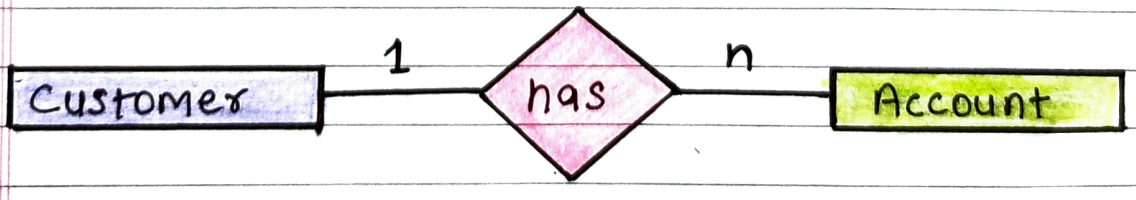
External or view level :

It is the level that describes the only part of the database and hides the details of tables schema and its physical storage from the users. The result of a query is an example of view level data abstraction.

- Explain different types of relationships amongst table in DBMS.

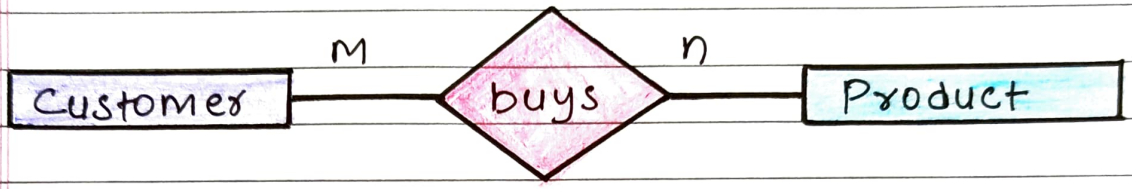
One to one Relationship : This type of relationship is applied when a particular row in table 'X' is linked to singular row in table 'Y'.

One to many Relationship : This type of relationship is applied when a single row table 'X' related to many rows in table 'Y'.



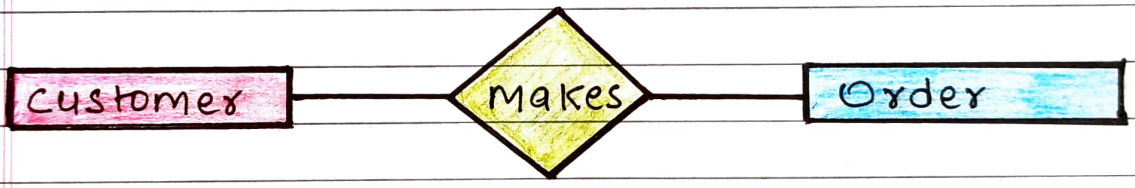
Many to Many Relationships :

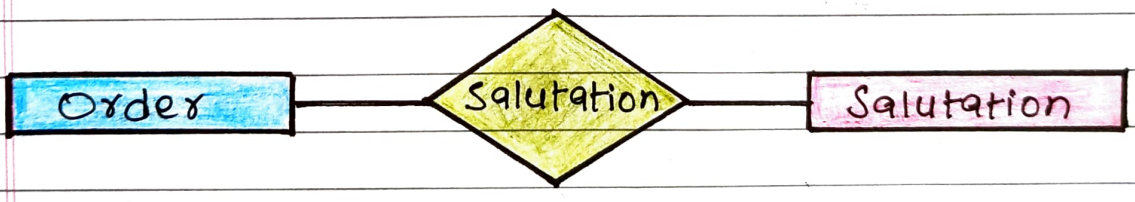
This type of relationship is applied when multiple rows in table 'X' can be linked to multiple rows in table 'Y'.

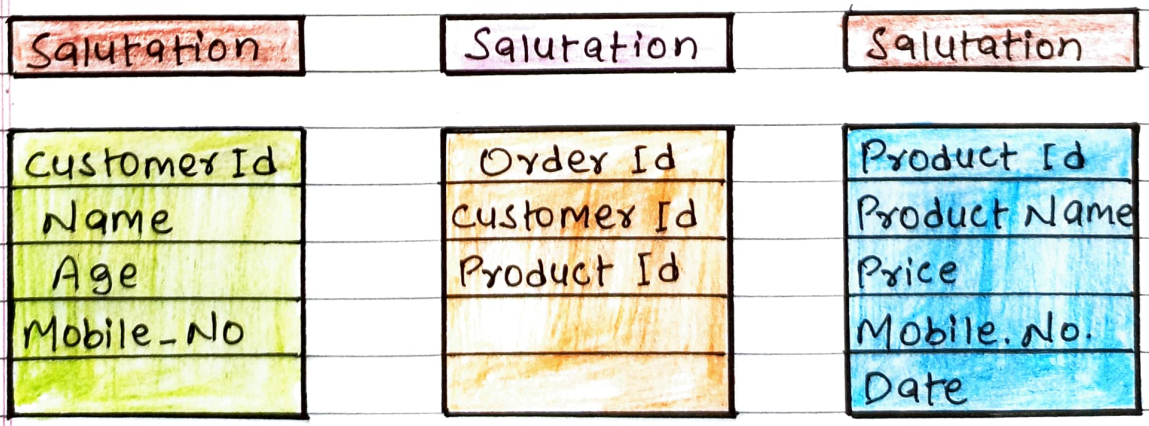


Self Referencing Relationship :

This type of relationship is applied when a particular row in table 'X' is associated with the same table.







Explain the difference between intension and extension in a data base.

Intension:

Intension or popularly known as data-base Schema is used to define the description of the data base and is specified during the design of the database and mostly remains unchanged.

Extension:

Extension on the other hand is the measure of the number of tuples present in the data-base at any given point in Time. The extension of a database is also refferred to as the Snapshot of the database and its value keeps changing as and when tuples are created, updated, or destroyed in a data base.