1. **what is Data?**

* Data is a raw and unorganized fact. Data contains numbers, statements, and characters in a raw form.

1. **what is Information?**

* Information is a set of data which is processed in a meaningful way according to the given requirements.

1. **what is Database (DB)?**

* A database is a systematic collection of data. They support electronic storage and manipulation of data.

1. **What is the Relation Database Management System (RDBMS)?**

* A relational database is a type of database that stores and provides access to data points that are related to one another.

1. **Define the importance of Relation Database Management System (RDBMS)?**

* Flexibility -- updating data is more efficient since the changes only need to be made in one place.
* Maintenance -- database administrators can easily maintain, control and update data in the database. Backups also become easier since automation tools included in the RDBMS automate these tasks.
* Data structure -- the table format used in RDBMSes is easy to understand and provides an organized and structural manner through which entries are matched by firing queries.

1. **As we all know that there are Two types of Databases. Relational Database (SQL) AND** **Non-Relational DB (NO SQL). what is the difference between them?**

* Relational database - stores data in tables and rows format. uses a structure that allows the users to identify and access data *in relation* to another piece of data in the database. It is used by organizations of all types and sizes for a broad variety of information needs.
* non-relational database - uses a storage model optimized for specific requirements of the type of data being stored does not use the tabular schema of rows and columns

1. **List examples of Relation Database Management System (RDBMS)?**

* Microsoft SQL Server, Oracle Database, MySQL, and IBM DB2

1. **List examples of Non-Relational DB(Nosql)**

* MongoDB
* Couchbase

1. **Define and Describe is Structured Query Language (SQL)?**

* SQL is Structured Query Language, which is a computer language for storing, manipulating, and retrieving data stored in a relational database.

1. **List and describe each of the different subsets of SQL (Mean DDL, DML, DCL, TCL)?**

### 

### DDL - Data Definition Language – It allows to perform various operations on the database. Such as, creation of table, altering, deleting. DDL commands saves changes permanently.

### DML - Data Manipulation Language – It allows to access and manipulate data in the table and not the table itself. It helps to insert, update, delete and retrieve data from the database. DML is not saved permanently to database.

* **DCL – Data Control Language** - Data control language are the commands to grant and take back authority from any database user.
* **TCL - Transaction Control Language -** These are used to manage the changes made to the data in a table by DML statements. It also allows statements to be grouped together into logical transactions.

1. **what is table in Database (DB)?**

* Tables are database objects that contain all the data in a database. In tables, data is logically organized in a row-and-column format like a spreadsheet.

1. **what is column and Row(tuples) in table?**

* **rows stand for records while columns stand for attributes A single row of a table that has a single record for such a relation is known as a tuple.**