**Q1.What do you understand By Database**

* A database is an electronically stored, systematic collection of data. It can contain any type of data, including words, numbers, images, videos, and files. You can use software called a database management system (DBMS) to store, retrieve, and edit data.

**Q2. What is Normalization?**

* Normalization is the process of organizing data in a database. It includes creating tables and establishing relationships between those tables according to rules designed both to protect the data and to make the database more flexible

**Q3. What is Difference between DBMS and RDBMS?**

|  |  |
| --- | --- |
| **DBMS** | **RDBMS** |
| [DBMS](https://www.geeksforgeeks.org/introduction-of-dbms-database-management-system-set-1/) stores data as file. | [RDBMS](https://www.geeksforgeeks.org/rdbms-architecture/) stores data in tabular form. |
| No relationship between data. | Data is stored in the form of tables which are related to each other. |
| It deals with small quantity of data. | It deals with large amount of data. |
| It supports single user. | It supports multiple user. |

**Q4.** **What is MF Cod Rule of RDBMS Systems**

### ****Rule 1: The Information Rule****

that is stored in a database must be entered as a value in a cell of a table. It is said that everything within the database is organized in a table layout.

### ****Rule 2: The Guaranteed Access Rule****

### Each data element is guaranteed to be accessible logically with a combination of the table name, primary key (row value), and attribute name (column value).

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### ****Rule 3: Systematic Treatment of NULL Values****

Every Null value in a database must be given a systematic and uniform treatment.

### ****Rule 4: Active Online Catalog Rule****

The database catalog, which contains metadata about the database, must be stored and accessed using the same relational database management system.

### ****Rule 5: The Comprehensive Data Sublanguage Rule****

A crucial component of any efficient database system is its ability to offer an easily understandable data manipulation language (dbl) that facilitates defining, querying, and modifying information within the database.

### ****Rule 6: The View Updating Rule****

All views that are theoretically updatable must also be updatable by the system.

### ****Rule 7: High-level Insert, Update, and Delete****

A successful database system must possess the feature of facilitating high-level insertions, updates, and deletions that can grant users the ability to conduct these operations with ease through a single query.

### ****Rule 8: Physical Data Independence****

Application programs and activities should remain unaffected when changes are made to the physical storage structures or methods.

### ****Rule 9: Logical Data Independence****

Application programs and activities should remain unaffected when changes are made to the logical structure of the data, such as adding or modifying tables.

**Rule 10: Integrity Independence**

Integrity constraints should be specified separately from application programs and stored in the catalog. They should be automatically enforced by the database system.

### ****Rule 11: Distribution Independence****

The distribution of data across multiple locations should be invisible to users, and the database system should handle the distribution transparently.

### ****Rule 12: Non-Subversion Rule****

If the interface of the system is providing access to low-level records, then the interface must not be able to damage the system and bypass security and integrity constraints.

**Q5.** **What do you understand By Data Redundancy?**

* Data redundancy occurs when the same piece of data exists in multiple places, whereas data inconsistency is when the same data exists in different formats in multiple tables.
* Unfortunately, data redundancy can cause data inconsistency, which can provide a company with unreliable and/or meaningless information.

**Q6.** **What is DDL Interpreter?**

* DDL Interpreter It interprets the **DDL (Data Definition Language)** Instructions and stores the record in a data dictionary (in a table containing meta-data.

**Q7.** **What is DML Compiler in SQL?**

* **DML (data manipulation language)** refers to a computer programming language that allows you to add (insert), delete (delete), and alter (update) data in a database.
* A DML is typically a sublanguage of a larger database language like SQL

**Q8.** **What is SQL Key Constraints writing an Example of SQL Key Constraints**

* **NOT NULL**: This constraint cannot store a null value in a column.
* **UNIQUE**: This constraint when specified with a column, tells that all the values in the column must be unique.
* **PRIMARY KEY**: A primary key is a field which can uniquely identify each row in a table.
* **FOREIGN KEY**: A Foreign key is a field which can uniquely identify each row in a another table.
* **CHECK**: This constraint helps to validate the values of a column to meet a particular condition.
* **DEFAULT**: This constraint specifies a default value for the column when no value is specified by the user.

**Q9. What is save Point? How to create a save Point write a Query?**

* Savepoint a command in sql that is used with the rollback command.it is command in transaction control language that is used to mark the transaction in a table.
* **Savepoint query.**

SAVEPOINT savepoint\_name;

ROLLBACK TO savepoint\_name;

**Q10. What is trigger and how to create a Trigger in SQL?**

A trigger us a stored procedure in a database that automatically invokes whenever a special event in the database occurs.

* **create a Trigger in SQL?**

**Delimiter//**

**Create trigger newbackup**

**After insert**

**On newstudinfo**

**For each row**

**Begin**

**Insert into stbackup(name,age,city,log)values**

**(new.name,new.age,new.city,**

**”record inserted!”)**

**End//**

**Delimiter;**