Q1- What is Databases? Give 5 examples.

Ans**Database**, also called **electronic database**, any collection of data, or [information](https://www.britannica.com/science/information-science), that is specially organized for rapid search and retrieval by a [computer](https://www.britannica.com/technology/computer). Databases are structured to [facilitate](https://www.merriam-webster.com/dictionary/facilitate) the storage, retrieval, modification, and deletion of data in conjunction with various data-processing operations. A [database management system](https://www.britannica.com/technology/database-management-system) (DBMS) extracts information from the database in response to queries. A database is stored as a [file](https://www.britannica.com/technology/file-computing) or a set of files. The information in these files may be broken down into [records](https://www.britannica.com/technology/record-computing), each of which consists of one or more fields. Fields are the basic units of data storage, and each field typically contains information pertaining to one aspect or attribute of the entity described by the database. Records are also organized into tables that include information about relationships between its various fields. Although database is applied loosely to any collection of information in computer files, a database in the strict sense provides cross-referencing capabilities. Using keywords and various sorting commands, users can rapidly search, rearrange, group, and select the fields in many records to retrieve or create reports on particular [aggregates](https://www.merriam-webster.com/dictionary/aggregates) of data.

Examples of database:

1.SQL: The Classic

SQL is the language most IT experts use to interact with relational databases. These interactions are called transactions. To be efficient and accurate, transactions must be [ACID](https://www.3pillarglobal.com/insights/short-history-databases-rdbms-nosql-beyond) (atomic, consistency, isolation, durability). Atomic means the transaction is all or nothing.

## 2. NewSQL: The Hipsters

NoSQL refers more to what it is not then to what it is. It refers to a language system not using SQL. It is mostly used for unstructured data in situations where the ability of the database to accept (create) or access (get) large amounts of data quickly is required. It offers great flexibility with alternative data models (ex.: non-relational data, unstructured documents).

## 3 Excel:

Let’s get back to the relational databases. Based on the assumption relational databases take the form of tables made of columns and rows, is Excel a database? If you want a real entertaining discussion, drop this question to a bunch of programmers. I suggest you run in the other direction, as it may get real ugly!

4. Kohezion

Kohezion is an [online database](https://www.kohezion.com/) software. It pairs all the pros of the classic databases with the ease of use of an Excel spreadsheet to allow you to design database applications. It offers a highly customizable yet easy to use solution.

Q2- Is Web development without database is possible? Explain.

Ans. Ans :No, web development without databse is impossible to do because, it is impossible without connecting database to the server and the front-end. That is when Database skills become mandatory for any Web developer. Some of the important database technologies that are highly in-demand for Web Development are MySQL, Oracle, SQL Server, and MongoDB.

Q3- Suppose, we want to display all the data from student table. Select the correct answer?

Ans : c

Q4- What are joins in SQL? Name there types and explain 2 of them.

Ans: A SQL join is a Structured Query Language (SQL) instruction to combine data from two sets of data (i.e. two tables). Before we dive into the details of a SQL join, let’s briefly discuss what SQL is, and why someone would want to perform a SQL join.

SQL is a special-purpose programming language designed for managing information in a relational database management system (RDBMS). The word relational here is key; it specifies that the database management system is organized in such a way that there are clear relations defined between different sets of data.

There are four types of joins i.e:

1.Inner join

2.Right join

3.Left join

4.Full join

## Inner Join

Let’s say we wanted to get a list of those customers who placed an order and the details of the order they placed. This would be a perfect fit for an inner join, since an inner join returns records at the intersection of the two tables

## Left Join

If we wanted to simply append information about orders to our customers table, regardless of whether a customer placed an order or not, we would use a left join. A left join returns all records from table A and any matching records from table B.

Q5- SQL comand to drop a table from the database.

Ans : 1. DROP TABLE table\_name;

2 .Example. DROP TABLE Shippers;

3 .TRUNCATE TABLE table\_name;