Q1- What is Databases? Give 5 examples.

Ans A database model is a type of data model that determines the logical structure of a database and fundamentally determines in which manner that  we can store, organize and manipulate the data. The most popular example of a database model is the relational model.

Examples of Database model:-

* [Hierarchical database model](https://en.wikipedia.org/wiki/Hierarchical_database_model):-

It is the oldest form of data base model. It was developed by IBM for IMS (information Management System). It is a set of organized data in tree structure. DB record is a tree consisting of many groups called segments. It uses one to many relationships. The data access is also predictable.

* [Network database model](https://en.wikipedia.org/wiki/Hierarchical_database_model):-

The network model is a database model  conceived as a flexible way of representing objects and their relationships. Its distinguishing feature is that the schema, viewed as a graph in which object types are nodes and relationship types are arcs, is not restricted to being a hierarchy or lattice.

* [Relational database model](https://en.wikipedia.org/wiki/Hierarchical_database_model):-

The purpose of the relational model is to provide a declarative  method for specifying data and queries: users directly state what information the database contains and what information they want from it, and let the database management system software take care of describing data structures for storing the data and retrieval procedures for answering queries.

* [Entity-Relationship database model](https://en.wikipedia.org/wiki/Hierarchical_database_model):-

An [Entity-Relationship database model](https://en.wikipedia.org/wiki/Hierarchical_database_model) describes interrelated things of interest in a specific domain of knowledge. A basic ER model is composed of entity types (which classify the things of interest) and specifies relationships that can exist between entites (instances of those entity types).

* [Object database model](https://en.wikipedia.org/wiki/Hierarchical_database_model):-

An  [Object database model](https://en.wikipedia.org/wiki/Hierarchical_database_model" \o "Hierarchical database model) is a database management system in which information is represented in the form of objects  as used in object-oriented programming. Object databases are different from relational databases which are table-oriented. Object-relational databases are a hybrid of both approaches.

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

Ans we cannot operate web development without database Technology. In order for the website to function, it is required that the database contains all the necessary files and content.

Q3- Suppose, we want to display all the data from student table. Select the correct answer? a) SELECT student\_name FROM student; b) SELECT phone\_number FROM student; c) SELECT \* FROM student;

Ans C) SELECT \* FROM student;

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

Ans A Join is a means for combining columns from one or more tables by using values common to each.

* (INNER) JOIN: Returns records that have matching values in both tables.

Select column\_name(s)

FROM table1

INNER JOIN table2

ON table1.column\_name = table2.column\_name;

* LEFT (OUTER) JOIN: Returns all records from the left table, and the matched records from the right table.

Select column\_name(s)

FROM table1

LEFT JOIN table2

ON table1.column\_name = table2.column\_name;

* RIGHT (OUTER)JOIN: Returns all records from the right table, and the matched records from the left table.

Select column\_name(s)

FROM table1

RIGHT JOIN table2

ON table1.column\_name = table2.column\_name;

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

Ans The DROP TABLE statement is used to drop an existing table in a database.

DROP TABLE table\_name;