Database definition

* Database is a collection of related data and the Database Management System (DBMS) to be the software that manages and controls access to the database.

Database management system

* The software that manages and controls access to the database.

DDL vs DML

* Data definition language (DDL) is used for defining and creating a database schema or modifying an existing one. DDL cannot be used to manipulate data.
* The operations expected to be available in DDL are CREATE, ALTER, DROP, TRUNCATE, RENAME, etc.
* Data manipulation language (DML) is used for supporting the basic data manipulation operations.
* The operations expected to be available in DML are INSERT, UPDATE, DELETE, SELECT, etc., so modification, insertion, retrieval, and deletion.

Functionality provided by a DBMS

Models

Record-based models

Hardware architecture for database systems

Client server model

Middleware

Transaction Processing Monitor

ANSI-SPARC three level architecture

Different variations of cloud computing

Characteristic of cloud computing

Advantages and risks of cloud computing