1. Database is an electronic, coherent collection for inherently meaningful data. They are important for IT and businesses because they help stakeholders identify beneficial data and organize them in an accessible and readable manner.
2. DBMS handles:

* concurrency of user operations,
* enforces data security,
* prevents loss of data integrity,
* controls data redundancy, and
* ensures data independence.

1. To design DB schema, the DB data model have to be determined first. This includes designing the conceptual, logical, and physical data model of the DB. Then, the external, conceptual and internal schemas of the DB have to be determined.
2. ER modelling is the process of structuring the attributes and relations between entities. It is used to visualize and document the degree of dependency between entities
3. DB admin is responsible for jobs such as

* optimizing database performance,
* ensuring database uptime,
* removing obsolete data,
* reinforce data security, and
* prevent unauthorized accesses to the database.

1. Data modelling is the definition of data requirements, such as attribute, format, and relation with other data to construct a abstract view of the database. It is important as it allows developers to identify database properties early on and reduces development effort

Conceptual data model is a data model that defines data that is mainly concerned and easier to understand by the end users.

Logical data model is a data model that defines data requirements for linking related data, such as relations, identifiers, and miscellaneous attributes.

Physical data model is a data model that defines the actual, entire data storage and requirements that enable logical mappings to work by detailing information abstracted from view, such as field namings, data types, constraints, and cardinality.