

Group B
Assignment No. 4

• Aim :

Design and develop DB for order management system with all the constraints.

• Problem Statement :

- Design and develop DB for order management system with all the constraints. (There must be atleast 3 entities and relationship between them.)
- The statement should use SQL objects such as table, index and sequence.
- Draw suitable ER/EER diagram for the system.
- Apply DCL and DDL commands to convert E-R/EER diagram to tables.

• Objective :-

- 1) To understand the concept of ER diagram
- 2) To understand the details of basic ER model.
- 3) To understand the technique for converting ER diagram into tables.
- 4) To understand use of DCL, DDL.

• Theory :-

- A database can be modeled as a collection of entities and relationship among entities.
- Entity is an object that exists and is distinguishable from other objects.

Example:
specific person, company, event, plant.

- Entity Set:-

An entity set is a set of entities of the same type that share the same properties.

e.g:- set of all persons, companies, trees

- Attribute:

Entities have attributes

e.g:- people have names and addresses.

- Attribute types:

1) Simple - e.g. rollno

2) Composite - e.g. name, address

3) Single valued - roll-no

4) Multi-valued - e.g. phone-number

5) Derived - Can be computed from other attributes e.g. age

- Relationship

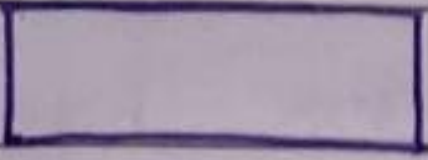
A relationship is an association among several entities

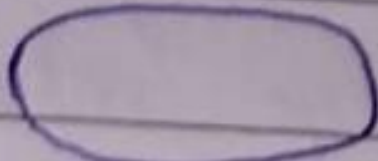
- Mapping cardinalities:


Express the number of entities to which another entity can be associated via a relationship set.


• Symbolic Notations

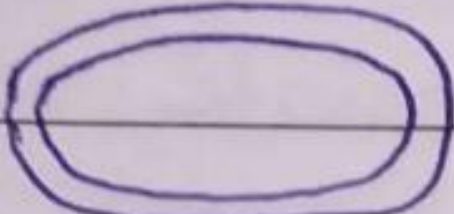
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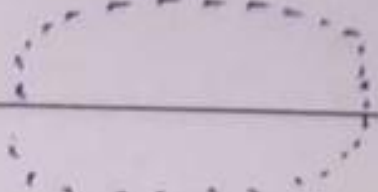
1>  - Entity

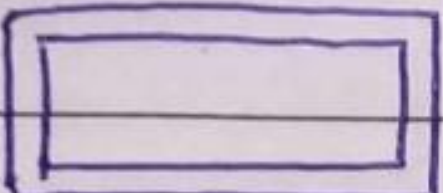
2>  - Attribute

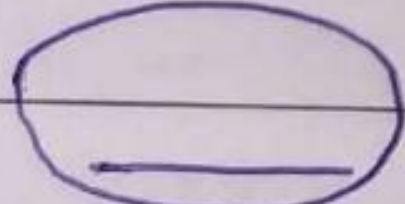
3>  - Relationship

4>  - linking

5>  - multi-valued

6>  - derived

7>  - weak entity

8>  - key attribute

• DDL :

DDL is short name of Data definition language which deals with databases schemas and descriptions of how the data should reside in the database.

- create, alter, drop, truncate, comment & rename.

• DCL :

DCL is short name of Data control language which includes commands such as GRANT and mostly concerned with rights, permission and other controls of the database system.

- GRANT, REVOKE, ~~grant~~, etc

• TCL :

TCL is short name of transaction control language.

- commit, roll back, ~~SAVEPOINT~~, set transaction.

- Conclusion :
From this assignment I understood about how to design and develop relational database system by using mysql. I also understood about different DDL and DCL.