BE IV SEM CSE – – DBMS - ASSIGNMENT-1

Skills required :- ER modeling, Integrity Referential constraint, Join operations
Objective of this Assignment :- Not to see ur copying skills. Wanted to see u learn and do it.
Type of submission :- Solutions in PDF file to bsateesh_cseaiml@cbit.ac.in – subject of mail – UR Rollno
Last Date:- 2-6-2023

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Question :- 1 Consider the below table. Managers are none other than employees of same organization. They manage any number of employees including themselves. Consider the below table. Empid is primary key and Mgrid is foreign key on same table referencing empid.

empid	mgrid
1	3
2	3
3	1
4	1
5	2
6	3
7	2
8	1
9	9

Address the following using SQL queries.

1) Find the employee ids who are NOT managers for at least one employee.
   Ans) select t3.empid from empid t3 where t3.empid not in(select distinct t2.empid from emp
   t1 inner join empt2 on t1.mgrid=t2.empid) as x ;

2) Find the employee ids who are managers for at least ONE employee
   Ans) select distinct t2.empid from emp
   t1 inner join emp t2 on t1.mgrid=t2.empid;

3) Find the employee ids who are managers for themselves.

   Ans)   select distinct t1.empid from emp t1

   where t1.empid=t1.mgrid;

Question 2 :- In ER Modeling, the following TWO attributes are permitted and they have their own notations. But these attributes trouble in real time applications. So they are NOT permitted in relational modeling. Specify the reasons with suitable examples.

1. Multivalued attribute
   Multivalued attribute has multiple single valide attributes associate with it
   ex: address.
   This is difficult in real time applications, because it is difficult to define in same table,which is
   not possible. And giving unique id separately when we create separate table is also not useful.
2. Derived attribute
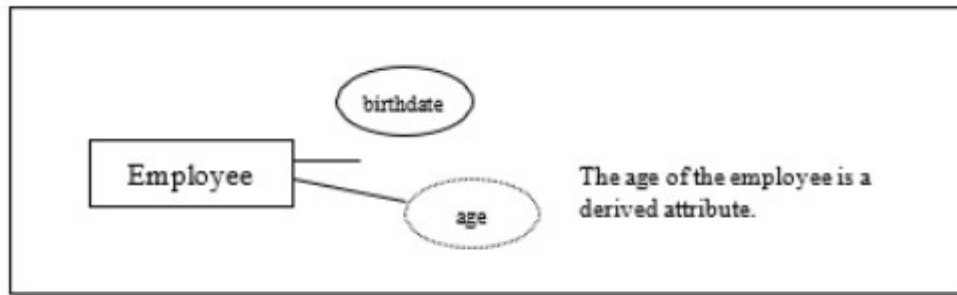
Figure 7.12: Age as a derived attribute

Derived attribute is calculated in the time of application running, so the data is not stored in database. The only concern is that developers should know the attributes required can be calculated from existing attributes.

Questions 3:- Consider the below the table. **Y** is foreign key referencing **X** of same table which is a primary key.

X	Y
1	2
3	6
2	3
4	1
5	3
7	4
6	2

(i) We cannot insert (8,8) in above table in single shot. Give reason and solution to insert.

(ii) After inserting above said record, Delete (1,2) which will also delete some other rows. What are they and Why?

Since we cannot delete (1,2) because (4,1) is dependent on (1,2).

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