CS241 : Mid-semester examination, 2021

Time: 1 hour, Maximum marks: 10

1 INSTRUCTIONS

(1) For this test, use only the SQL constructs taught in class. If you use constructs not taught in class, you will not be awarded any marks.

(2) The first table provides information about sales managers and their supervisors of a pharmaceutical company and the second table provides the cities and the number of distributors they are in charge of. You can assume appropriate primary keys, attribute types etc.. Assume that there are no foreign keys. You may create a new database if you wish.

(3) Make reasonable assumptions where necessary.

(4) You must upload 1 screenshot per question after the assignment is done, in the google form given below: https://forms.gle/ti9f6NTZYo1UmA6H9

The screenshot must clearly show the query and its output, as run on the database you have created.

(5) You may be called for a viva, after you have submitted your answers.

Table 1. Employees

person_name	person_id	supervisor_name
R	2021001	A
A	2021002	<Your name>
<Your name>	<Your Roll No.>	M
M	2021004	null
X	2021007	null

Table 2. Account

person_name	City	No_distributors
R	Hyderabad	10
M	Chennai	5
A	Kolkata	4
<Your name>	Guwahati	4

In the above database, replace <Your name> with your first name and <Your Roll No.> with your roll number. You will not be awarded any marks if this instruction is not followed.

(1) Write a query that prints the contents of the table Employees [0.5 Mark]

(2) Write a query that prints the contents of the table Account [0.5 Mark]

(3) Write a query that prints the name and id of the immediate supervisor of A. [2 Marks]

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(4) Write a query that prints the name and ids of all supervisors (direct and indirect) of R. You may assume that the direct and indirect supervisors of R will never change. More entries may be added to the table, but they will not affect the number of direct and indirect supervisors of R or their details. [3 Marks]

(5) Write a query that prints the name and id of the persons who are in charge of as many distributors as you are. [4 Marks]