DBMS LAB 'N' Batch : 11.02.2026

Consider the following relational schema.

An employee can work in more than one department; the pct time field of the Works relation shows the percentage of time that a given employee works in a given department.

Emp(eid: integer, ename: string, age: integer, salary: real)

Works(eid: integer, did: integer, pct time: integer)

Dept(did: integer, budget: real, managerid: integer)

Write the following queries in SQL:

1. Print the names and ages of each employee who works in both the Hardware department and the Software department.
2. For each department with more than 20 full-time-equivalent employees (i.e., where the part-time and full-time employees add up to at least that many full-time employees), print the did together with the number of employees that work in that department.
3. Print the name of each employee whose salary exceeds the budget of all of the departments that he or she works in.
4. Find the managerids of managers who manage only departments with budgets greater than $1,000,000.
5. Find the enames of managers who manage the departments with the largest budget. 6. If a manager manages more than one department, he or she controls the sum of all the budgets for those departments. Find the managerids of managers who control more than $5,000,000. 7. Find the managerids of managers who control the largest amount.
6. Create triggers to ensure each of the following requirements, considered independently.
   (i). Every manager must be also be an employee.
   (ii). The total percentage of all appointments for an employee must be under 100%.
   (iii). A manager must always have a higher salary than any employee that he or she manages.
   (iv). Whenever an employee is given a raise, the manager's salary must be increased to be at least as much.
   (v). Whenever an employee is given a raise, the manager's salary must be increased to be at least as much. Further, whenever an employee is given a raise, the department's budget must be increased to be greater than the sum of salaries of all employees in the department.