Database System & Web Lab (15B17CI372)
SQL-Joins and Nested Queries
Week 6

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, gender: string)

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

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

Design the following queries using either **JOIN or NESTED queries:**

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 Rs 1 million.
5. Find the enames of managers who manage the departments with the largest budgets.
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 Rs 5 million.
7. Find the managerids of managers who control the largest amounts.
8. For each department whose average employee salary is more than Rs 30,000 retrieve the department name and the number of employees working for that department.
9. Suppose that we want the number of *male* employees in each department making more than Rs 30,000, rather than all employees. Can we specify this query in SQL? Why or why not?
10. Retrieve the names of all employees who work in the department that has the employee with the highest salary among all employees.
11. Retrieve the names of employees who make at least Rs 10,000 more than the employee who is paid the least in the company.