Basic SQL Questions

1) Given two tables: departments (id, name), workers (id, name, department\_id)

Create a query to find all departments where nobody works

* 1. Find two alternative ways to write this query
  2. Which option will be better from the performance point of view and why

Answer :

a)

1) SELECT d.name FROM Department d

LEFT JOIN Worker w ON w.department\_id = d.id

WHERE w.id IS NULL

2) SELECT d.name FROM Department d

WHERE NOT EXISTS (SELECT department\_id FROM Worker WHERE department\_id=d.id)

b) Option 2 will be better for the performance point of view.

A LEFT JOIN will give one row per worker. You'd need DISTINCT. Which compromises the plan compared with NOT EXISTS. Where NOT IN will give false results if there is an worker who has no Department. NOT IN with a NULL in the list fails