**TABLES:**

employee [employee\_id, name, job\_title, level\_sk, dept\_sk, manager\_id, location\_sk, salary, start\_date, term\_date]

level [level\_sk, level\_name]

department [dept\_sk, dept\_name]

location [location\_sk, city, state, country]

**Q1: select the employee in each department with the highest salary in the US. include employee name, department name, and salary in output.**

SELECT

e.name, d.dept\_name, salary AS highest\_salary

FROM

employee e

JOIN

department d ON e. dept\_sk=d. dept\_sk

WHERE

( d. dept\_sk, salary)

IN

(SELECT dept\_sk, MAX(salary) from employee GROUP BY dept\_sk);

**Q2: select the top 5 employees in each department with the highest salaries in the US. include employee name, department name, and salary in output.**

SELECT

a.name, d.dept\_name, a. Salary

FROM

(SELECT e.\*,

DENSE\_RANK() OVER (PARTITION BY DepartmentId OREDER BY Salary DESC)

AS DeptPayRank

FROM Employee e

) a

JOIN Department d

ON a. dept\_sk = d. dept\_sk

WHERE DeptPayRank <=5;

**Q3: Create a table in the database with the information from all tables for the department of  ‘BizOps’p[]\**

SELECT

\*

FROM

Employee e, level l,department d, location lo

WHERE

e. level\_sk = l. level\_sk

e.dept\_sk = d. dept\_sk

e. location\_sk = lo. location\_sk

WHERE

d.dept\_name =’ BizOps’

**Q4: Pull a list of managers and their direct reports, Include Ids and names for both manager and direct reports in the output.**

SELECT

t1.employee\_id, t1.name AS ‘employee\_name’，

t1. manager\_id, t2.name as ‘manager\_name’

FROM

employee t1, employee t2

WHERE

t1. employee\_id=t2. manager\_id

**Q5: Find the number of employees that started at the company each quarter**

SELECT

COUNT (CASE WHEN QUARTER (start\_date) = 1 THEN employee\_id ELSE 0 END) AS Q1,

COUNT (CASE WHEN QUARTER (start\_date) = 2 THEN employee\_id ELSE 0 END) AS Q2

COUNT (CASE WHEN QUARTER (start\_date) = 3 THEN employee\_id ELSE 0 END) AS Q3,

COUNT (CASE WHEN QUARTER (start\_date) = 4 THEN employee\_id ELSE 0 END) AS Q4

FROM

Employee;

**Q6: Find the average tenure of all employees by level. If an employee is still at the company, term\_date is null; use today’s date to calculate tenure.**

SELECT

level\_sk,

AVG (CASE WHEN term\_date IS NULL THEN (DATEDIFF (NOW(), start\_date))

WHEN term\_date IS NOT NULL THEN (DATEDIFF (term\_date, start\_date))

ELSE 0 END) AS avg\_tenure

FROM

Employee

GROUP BY

level\_sk;