4. Create a query using a recursive CTE to list all employees and their respective reporting chains (i.e., list the manager's manager and so on).

WITH RECURSIVE EmployeeHierarchy AS (

SELECT

e.employee\_id,

CONCAT(e.first\_name, ' ', e.last\_name) AS employee\_name,

e.manager\_id,

CONCAT(d.manager\_name) AS manager\_name

FROM

employees e

LEFT JOIN

department d ON e.manager\_id = d.manager\_id

UNION ALL

SELECT

e.employee\_id,

CONCAT(e.first\_name, ' ', e.last\_name) AS employee\_name,

e.manager\_id,

CONCAT(eh.manager\_name, ' -> ', d.manager\_name) AS manager\_name

FROM

employees e

INNER JOIN

EmployeeHierarchy eh ON e.manager\_id = eh.employee\_id

LEFT JOIN

department d ON e.manager\_id = d.manager\_id

)

SELECT

eh.employee\_id,

eh.employee\_name,

TRIM(TRAILING ' -> ' FROM eh.manager\_name) AS reporting\_chain

FROM

EmployeeHierarchy eh

ORDER BY

eh.employee\_id;

