SELECT LEVEL,

LAST\_NAME,

FIRST\_NAME,

EMPLOYEE\_ID,

MANAGER\_ID,

JOB\_ID,

PRIOR LAST\_NAME,

PRIOR FIRST\_NAME,

PRIOR EMPLOYEE\_ID,

PRIOR MANAGER\_ID,

PRIOR JOB\_ID,

LAST\_NAME || ' Reports to ' || PRIOR LAST\_NAME "Walk Top Down"

FROM EMPLOYEES

START WITH LAST\_NAME = 'King'

CONNECT BY PRIOR EMPLOYEE\_ID = MANAGER\_ID

ORDER SIBLINGS BY LAST\_NAME;

**START** **WITH** clause to specify a root row for the hierarchy and an **ORDER** **BY** clause using the **SIBLINGS** keyword to preserve ordering within the hierarchy:

<https://docs.oracle.com/cd/B19306_01/server.102/b14200/queries003.htm>

SELECT LEVEL FROM DUAL

WHERE LEVEL BETWEEN 5 AND 15

CONNECT BY LEVEL<=15

5

6

7

8

9

10

11

12

13

14

15

SELECT LEVEL FROM DUAL

WHERE LEVEL BETWEEN 5 AND 15

CONNECT BY LEVEL<=15

AND LEVEL!=13

5

6

7

8

9

10

11

12

SELECT last\_name, employee\_id, manager\_id, LEVEL

FROM employees

START WITH employee\_id = 100

CONNECT BY PRIOR employee\_id = manager\_id

ORDER SIBLINGS BY last\_name;

UPDATE employees SET manager\_id = 145

WHERE employee\_id = 100;

SELECT last\_name "Employee",

LEVEL, SYS\_CONNECT\_BY\_PATH(last\_name, '/') "Path"

FROM employees

WHERE level <= 3 AND department\_id = 80

START WITH last\_name = 'King'

CONNECT BY PRIOR employee\_id = manager\_id AND LEVEL <= 4 *--ORA-01436 CONNECT BY loop in user data*

SELECT last\_name "Employee",DEPARTMENT\_ID, CONNECT\_BY\_ISCYCLE "Cycle",

LEVEL, SYS\_CONNECT\_BY\_PATH(last\_name, '/') "Path"

FROM employees

WHERE level <= 3 AND department\_id = 80

START WITH last\_name = 'King'

CONNECT BY NOCYCLE PRIOR employee\_id = manager\_id AND LEVEL <= 4;

UPDATE employees SET manager\_id = NULL

WHERE employee\_id = 100;

SELECT last\_name "Employee", CONNECT\_BY\_ROOT last\_name "Manager",

LEVEL-1 "Pathlen", SYS\_CONNECT\_BY\_PATH(last\_name, '-->') "Path"

FROM employees

WHERE LEVEL > 1 and department\_id = 110

CONNECT BY NOCYCLE PRIOR employee\_id = manager\_id;

*--The following example uses a GROUP BY clause to return the total salary of each employee in department 110 and all employees below that employee in the hierarchy:*

SELECT name, SUM(salary) "Total\_Salary" FROM (

SELECT CONNECT\_BY\_ROOT last\_name as name, Salary

FROM employees

WHERE department\_id = 110

CONNECT BY PRIOR employee\_id = manager\_id)

GROUP BY name;