

Spool File For Oracle Students Prepared By Mr.Balram

```
SQL> SELECT LEVEL,ENAME, JOB, MGR, Sal
2 FROM EMP;
FROM EMP
*
```

ERROR at line 2:

ORA-01788: CONNECT BY clause required in this query block

```
SQL> SELECT LEVEL,ENAME, JOB, MGR
2 FROM EMP
3 START WITH ENAME='KING'
4 CONNECT BY PRIOR EMPNO=MGR;
```

LEVEL	ENAME	JOB	MGR
1	KING	PRESIDENT	
2	JONES	MANAGER	7839
3	SCOTT	ANALYST	7566
4	ADAMS	CLERK	7788
3	FORD	ANALYST	7566
4	SMITH	CLERK	7902
2	BLAKE	MANAGER	7839
3	ALLEN	SALESMAN	7698
3	WARD	SALESMAN	7698
3	MARTIN	SALESMAN	7698
3	TURNER	SALESMAN	7698

LEVEL	ENAME	JOB	MGR
3	JAMES	CLERK	7698
2	CLARK	MANAGER	7839
3	MILLER	CLERK	7782

14 rows selected.

```
SQL> ED
Wrote file afiedt.buf
```

```
1 SELECT LEVEL,ENAME, JOB, MGR
2 FROM EMP
3 WHERE LEVEL <=3
4 START WITH ENAME='KING'
5* CONNECT BY PRIOR EMPNO=MGR
SQL> /
```

LEVEL	ENAME	JOB	MGR
-------	-------	-----	-----

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1	KING	PRESIDENT	
2	JONES	MANAGER	7839
3	SCOTT	ANALYST	7566
3	FORD	ANALYST	7566
2	BLAKE	MANAGER	7839
3	ALLEN	SALESMAN	7698
3	WARD	SALESMAN	7698
3	MARTIN	SALESMAN	7698
3	TURNER	SALESMAN	7698
3	JAMES	CLERK	7698
2	CLARK	MANAGER	7839

LEVEL	ENAME	JOB	MGR
3	MILLER	CLERK	7782

12 rows selected.

SQL> ED

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```
1 SELECT LEVEL,ENAME, JOB, MGR
2 FROM EMP
3 WHERE LEVEL IN(1, 3)
4 START WITH ENAME='KING'
5* CONNECT BY PRIOR EMPNO=MGR
SQL> /
```

LEVEL	ENAME	JOB	MGR
1	KING	PRESIDENT	
3	SCOTT	ANALYST	7566
3	FORD	ANALYST	7566
3	ALLEN	SALESMAN	7698
3	WARD	SALESMAN	7698
3	MARTIN	SALESMAN	7698
3	TURNER	SALESMAN	7698
3	JAMES	CLERK	7698
3	MILLER	CLERK	7782

9 rows selected.

SQL> ED

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```
1 SELECT LEVEL,ENAME, JOB, MGR
2 FROM EMP
```

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```
3 WHERE LEVEL BETWEEN 1 AND 3
4 START WITH ENAME='KING'
5* CONNECT BY PRIOR EMPNO=MGR
SQL> /
```

LEVEL	ENAME	JOB	MGR
1	KING	PRESIDENT	
2	JONES	MANAGER	7839
3	SCOTT	ANALYST	7566
3	FORD	ANALYST	7566
2	BLAKE	MANAGER	7839
3	ALLEN	SALESMAN	7698
3	WARD	SALESMAN	7698
3	MARTIN	SALESMAN	7698
3	TURNER	SALESMAN	7698
3	JAMES	CLERK	7698
2	CLARK	MANAGER	7839

LEVEL	ENAME	JOB	MGR
3	MILLER	CLERK	7782

12 rows selected.

```
SQL> SELECT
2 LPAD(' ', ((2*LEVEL)-1)) || ' ' || ENAME ORG_LEVEL,
3 EMPNO, MGR, JOB, SAL
4 FROM EMP
5 WHERE LEVEL IN (1,3)
6 START WITH JOB='PRESIDENT'
7 CONNECT BY PRIOR EMPNO= MGR;
```

ORG_LEVEL	EMPNO	MGR	JOB	SAL
KING	7839		PRESIDENT	5000
SCOTT	7788	7566	ANALYST	3000
FORD	7902	7566	ANALYST	3000
ALLEN	7499	7698	SALESMAN	1600
WARD	7521	7698	SALESMAN	1250
MARTIN	7654	7698	SALESMAN	1250
TURNER	7844	7698	SALESMAN	1500
JAMES	7900	7698	CLERK	950
MILLER	7934	7782	CLERK	1300

9 rows selected.

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```
SQL> SELECT
  2 LPAD(LEVEL, ((2*LEVEL)-1)) || ' ' || ENAME ORG_LEVEL,
  3 EMPNO, MGR, JOB, SAL
  4 FROM EMP
  5 WHERE LEVEL IN (1,3)
  6 START WITH JOB='PRESIDENT'
  7 CONNECT BY PRIOR EMPNO= MGR;
```

ORG_LEVEL	EMPNO	MGR	JOB	SAL
1 KING	7839		PRESIDENT	5000
3 SCOTT	7788	7566	ANALYST	3000
3 FORD	7902	7566	ANALYST	3000
3 ALLEN	7499	7698	SALESMAN	1600
3 WARD	7521	7698	SALESMAN	1250
3 MARTIN	7654	7698	SALESMAN	1250
3 TURNER	7844	7698	SALESMAN	1500
3 JAMES	7900	7698	CLERK	950
3 MILLER	7934	7782	CLERK	1300

9 rows selected.

```
SQL> ED
Wrote file afiedt.buf
```

```
1 SELECT
2 LPAD(LEVEL, ((2*LEVEL)-1)) || ' ' || ENAME ORG_LEVEL,
3 EMPNO, MGR, JOB, SAL
4 FROM EMP
5 --WHERE LEVEL IN (1,3)
6 START WITH JOB='PRESIDENT'
7* CONNECT BY PRIOR EMPNO= MGR
SQL> /
```

ORG_LEVEL	EMPNO	MGR	JOB	SAL
1 KING	7839		PRESIDENT	5000
2 JONES	7566	7839	MANAGER	2975
3 SCOTT	7788	7566	ANALYST	3000
4 ADAMS	7876	7788	CLERK	1100
3 FORD	7902	7566	ANALYST	3000
4 SMITH	7369	7902	CLERK	800
2 BLAKE	7698	7839	MANAGER	2850
3 ALLEN	7499	7698	SALESMAN	1600
3 WARD	7521	7698	SALESMAN	1250
3 MARTIN	7654	7698	SALESMAN	1250
3 TURNER	7844	7698	SALESMAN	1500

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ORG_LEVEL	EMPNO	MGR	JOB	SAL
3 JAMES	7900	7698	CLERK	950
2 CLARK	7782	7839	MANAGER	2450
3 MILLER	7934	7782	CLERK	1300

14 rows selected.

```
SQL> SELECT
  2 LPAD(LEVEL, ((2*LEVEL)-1)) || ' .)' || ENAME ORG_LEVEL,
  3 EMPNO, MGR, JOB, SAL
  4 FROM EMP
  5 WHERE LEVEL IN (1,3)
  6 START WITH JOB='PRESIDENT'
  7 CONNECT BY PRIOR EMPNO= MGR;
```

ORG_LEVEL	EMPNO	MGR	JOB	SAL
1 .) KING	7839		PRESIDENT	5000
3 .) SCOTT	7788	7566	ANALYST	3000
3 .) FORD	7902	7566	ANALYST	3000
3 .) ALLEN	7499	7698	SALESMAN	1600
3 .) WARD	7521	7698	SALESMAN	1250
3 .) MARTIN	7654	7698	SALESMAN	1250
3 .) TURNER	7844	7698	SALESMAN	1500
3 .) JAMES	7900	7698	CLERK	950
3 .) MILLER	7934	7782	CLERK	1300

9 rows selected.

```
SQL> SELECT
  2 LPAD(LEVEL, ((2*LEVEL)-1)) || ' .)' || ENAME ORG_LEVEL,
  3 EMPNO, MGR, JOB, SAL
  4 FROM EMP
  5 WHERE LEVEL IN (1,3)
  6 START WITH JOB='PRESIDENT'
  7 CONNECT BY PRIOR EMPNO= MGR;
```

ORG_LEVEL	EMPNO	MGR	JOB	SAL
1 .) KING	7839		PRESIDENT	5000
3 .) SCOTT	7788	7566	ANALYST	3000
3 .) FORD	7902	7566	ANALYST	3000
3 .) ALLEN	7499	7698	SALESMAN	1600
3 .) WARD	7521	7698	SALESMAN	1250
3 .) MARTIN	7654	7698	SALESMAN	1250

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3.) TURNER	7844	7698	SALESMAN	1500
3.) JAMES	7900	7698	CLERK	950
3.) MILLER	7934	7782	CLERK	1300

9 rows selected.

```
SQL> SELECT
  2  LPAD(LEVEL, ((2*LEVEL)-1)) || '|' || ENAME ORG_LEVEL,
  3  EMPNO, MGR, JOB, SAL
  4  FROM EMP
  5  START WITH JOB='PRESIDENT'
  6  CONNECT BY PRIOR EMPNO= MGR;
```

ORG_LEVEL	EMPNO	MGR	JOB	SAL
<hr style="border-top: 1px dashed black;"/>				
1.) KING	7839		PRESIDENT	5000
2.) JONES	7566	7839	MANAGER	2975
3.) SCOTT	7788	7566	ANALYST	3000
4.) ADAMS	7876	7788	CLERK	1100
3.) FORD	7902	7566	ANALYST	3000
4.) SMITH	7369	7902	CLERK	800
2.) BLAKE	7698	7839	MANAGER	2850
3.) ALLEN	7499	7698	SALESMAN	1600
3.) WARD	7521	7698	SALESMAN	1250
3.) MARTIN	7654	7698	SALESMAN	1250
3.) TURNER	7844	7698	SALESMAN	1500

ORG_LEVEL	EMPNO	MGR	JOB	SAL
<hr style="border-top: 1px dashed black;"/>				
3.) JAMES	7900	7698	CLERK	950
2.) CLARK	7782	7839	MANAGER	2450
3.) MILLER	7934	7782	CLERK	1300

14 rows selected.

```
SQL> COL ORG_CHART FORMAT A20
SQL> SELECT
  2  LPAD(LEVEL, ((2*LEVEL)-1)) || '|' || ENAME ORG_CHART,
  3  EMPNO, MGR, JOB, SAL
  4  FROM EMP
  5  WHERE MOD(LEVEL, 2)=0
  6  START WITH JOB='PRESIDENT'
  7  CONNECT BY PRIOR EMPNO= MGR;
```

ORG_CHART	EMPNO	MGR	JOB	SAL
<hr style="border-top: 1px dashed black;"/>				
2 JONES	7566	7839	MANAGER	2975

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	4	ADAMS	7876	7788	CLERK	1100
	4	SMITH	7369	7902	CLERK	800
2		BLAKE	7698	7839	MANAGER	2850
2		CLARK	7782	7839	MANAGER	2450

```
SQL> SELECT
  2 LPAD(LEVEL, ((2*LEVEL)-1)) || ' ' || ENAME ORG_CHART,
  3 EMPNO, MGR, JOB, SAL
  4 FROM EMP
  5 WHERE MOD(LEVEL,2)=1
  6 START WITH JOB='PRESIDENT'
  7 CONNECT BY NOCYCLE PRIOR EMPNO= MGR;
```

ORG_CHART	EMPNO	MGR	JOB	SAL
1 KING	7839		PRESIDENT	5000
3 SCOTT	7788	7566	ANALYST	3000
3 FORD	7902	7566	ANALYST	3000
3 ALLEN	7499	7698	SALESMAN	1600
3 WARD	7521	7698	SALESMAN	1250
3 MARTIN	7654	7698	SALESMAN	1250
3 TURNER	7844	7698	SALESMAN	1500
3 JAMES	7900	7698	CLERK	950
3 MILLER	7934	7782	CLERK	1300

9 rows selected.

```
SQL> SELECT
  2 LPAD(LEVEL, ((2*LEVEL)-1)) || ' ' || ENAME ORG_CHART,
  3 EMPNO, MGR, JOB, SAL
  4 FROM EMP
  5 START WITH JOB='PRESIDENT'
  6 CONNECT BY PRIOR EMPNO= MGR AND
  7 Job <> 'ANALYST';
```

ORG_CHART	EMPNO	MGR	JOB	SAL
1 KING	7839		PRESIDENT	5000
2 JONES	7566	7839	MANAGER	2975
2 BLAKE	7698	7839	MANAGER	2850
3 ALLEN	7499	7698	SALESMAN	1600
3 WARD	7521	7698	SALESMAN	1250
3 MARTIN	7654	7698	SALESMAN	1250
3 TURNER	7844	7698	SALESMAN	1500
3 JAMES	7900	7698	CLERK	950
2 CLARK	7782	7839	MANAGER	2450
3 MILLER	7934	7782	CLERK	1300

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10 rows selected.

SQL> ED

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```
1  SELECT
2  LPAD(LEVEL, ((2*LEVEL)-1)) || '   ' || ENAME ORG_CHART,
3  EMPNO, MGR, JOB, SAL
4  FROM EMP
5  WHERE Job <> 'ANALYST'
6  START WITH JOB='PRESIDENT'
7* CONNECT BY PRIOR EMPNO= MGR
SQL> /
```

ORG_CHART	EMPNO	MGR	JOB	SAL
1 KING	7839		PRESIDENT	5000
2 JONES	7566	7839	MANAGER	2975
4 ADAMS	7876	7788	CLERK	1100
4 SMITH	7369	7902	CLERK	800
2 BLAKE	7698	7839	MANAGER	2850
3 ALLEN	7499	7698	SALESMAN	1600
3 WARD	7521	7698	SALESMAN	1250
3 MARTIN	7654	7698	SALESMAN	1250
3 TURNER	7844	7698	SALESMAN	1500
3 JAMES	7900	7698	CLERK	950
2 CLARK	7782	7839	MANAGER	2450

ORG_CHART	EMPNO	MGR	JOB	SAL
3 MILLER	7934	7782	CLERK	1300

12 rows selected.

```
SQL> SELECT LEVEL SEQNO, MIN(SAL) SALORDER
2  FROM EMP
3  CONNECT BY PRIOR SAL<SAL
4  GROUP BY LEVEL;
```

SEQNO	SALORDER
1	800
6	1500
11	3000
2	950
4	1250

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5	1300
8	2450
3	1100
7	1600
9	2850
10	2975

SEQNO	SALORDER
12	5000

12 rows selected.

SQL> ED

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```
1  SELECT LEVEL SEQNO,MIN(SAL) SALORDER
2  FROM EMP
3  CONNECT BY PRIOR SAL<SAL
4  GROUP BY LEVEL
5* ORDER BY 1
SQL> /
```

SEQNO	SALORDER
1	800
2	950
3	1100
4	1250
5	1300
6	1500
7	1600
8	2450
9	2850
10	2975
11	3000

SEQNO	SALORDER
12	5000

12 rows selected.

```
SQL> SELECT LEVEL SEQNO,MAX(SAL) SALORDER
2  FROM EMP
3  CONNECT BY PRIOR SAL>SAL
4  GROUP BY LEVEL
```

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5 ORDER BY SEQNO;

SEQNO	SALORDER
1	5000
2	3000
3	2975
4	2850
5	2450
6	1600
7	1500
8	1300
9	1250
10	1100
11	950

SEQNO	SALORDER
12	800

12 rows selected.

SQL> SPOOL OFF