

## Spool File For Oracle Students Trained By Mr. Balram

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```
SQL> CREATE TABLE MYDEPT
  2  (
  3  DEPTNO NUMBER(2)
  4  CONSTRAINT MYDEPT_DEPTNO_PK PRIMARY KEY
  5  CONSTRAINT MYDEPT_DEPTNO_CHK01
  6  CHECK(DEPTNO IN(10,20,30,40,50,60,70,80,90)),
  7  DNAME VARCHAR2(14)
  8  CONSTRAINT MYDEPT_DNAME_NN NOT NULL
  9  CONSTRAINT MYDEPT_DNAME_UNQ UNIQUE
 10  CONSTRAINT MYDEPT_DNAME_CHK
 11  CHECK(DNAME=UPPER(DNAME))
 12  DEFAULT 'Not Given',
 13  LOC VARCHAR2(16)
 14  CONSTRAINT MYDEPT_LOC_NN NOT NULL
 15  CONSTRAINT MYDEPT_LOC_CHK
 16  CHECK(LOC = UPPER(LOC))
 17  CONSTRAINT MYDEPT_LOC_CHK
 18  CHECK(
 19      LOC IN(
 20          'NEW YORK',
 21          'DALLAS',
 22          'BOSTON',
 23          'CHICAGO'
 24      )
 25  )
 26  DEFAULT 'NOT GIVEN'
 27  );
```

DEFAULT 'Not Given',

\*

ERROR at line 12:

ORA-00907: missing right parenthesis

SQL> ED

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```
1  CREATE TABLE MYDEPT
2  (
3  DEPTNO NUMBER(2)
4  CONSTRAINT MYDEPT_DEPTNO_PK PRIMARY KEY
5  CONSTRAINT MYDEPT_DEPTNO_CHK01
6  CHECK(DEPTNO IN(10,20,30,40,50,60,70,80,90)),
7  DNAME VARCHAR2(14)
8  DEFAULT 'Not Given'
9  CONSTRAINT MYDEPT_DNAME_NN NOT NULL
10  CONSTRAINT MYDEPT_DNAME_UNQ UNIQUE
11  CONSTRAINT MYDEPT_DNAME_CHK
12  CHECK(DNAME=UPPER(DNAME)),
13  LOC VARCHAR2(16)
14  DEFAULT 'NOT GIVEN'
15  CONSTRAINT MYDEPT_LOC_NN NOT NULL
16  CONSTRAINT MYDEPT_LOC_CHK
17  CHECK(LOC = UPPER(LOC))
```

## Spool File For Oracle Students Trained By Mr. Balram

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```
18 CONSTRAINT MYDEPT_LOC_CHK
19 CHECK(
20     LOC IN(
21         'NEW YORK',
22         'DALLAS',
23         'BOSTON',
24         'CHICAGO'
25     )
26 )
27* )
```

SQL> /

```
CONSTRAINT MYDEPT_LOC_CHK
*
```

ERROR at line 18:

ORA-02264: name already used by an existing constraint

SQL> ED

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```
1 CREATE TABLE MYDEPT
2 (
3     DEPTNO NUMBER(2)
4     CONSTRAINT MYDEPT_DEPTNO_PK PRIMARY KEY
5     CONSTRAINT MYDEPT_DEPTNO_CHK01
6     CHECK(DEPTNO IN(10,20,30,40,50,60,70,80,90)),
7     DNAME VARCHAR2(14)
8     DEFAULT 'Not Given'
9     CONSTRAINT MYDEPT_DNAME_NN NOT NULL
10    CONSTRAINT MYDEPT_DNAME_UNQ UNIQUE
11    CONSTRAINT MYDEPT_DNAME_CHK
12    CHECK(DNAME=UPPER(DNAME)),
13    LOC VARCHAR2(16)
14    DEFAULT 'NOT GIVEN'
15    CONSTRAINT MYDEPT_LOC_NN NOT NULL
16    CONSTRAINT MYDEPT_LOC_CHK01
17    CHECK(LOC = UPPER(LOC))
18    CONSTRAINT MYDEPT_LOC_CHK02
19    CHECK(
20        LOC IN(
21            'NEW YORK',
22            'DALLAS',
23            'BOSTON',
24            'CHICAGO'
25        )
26    )
27* )
```

SQL> /

Table created.

```
SQL> INSERT INTO MYDEPT
2 VALUES(10,'ACCOUNTING','NEW YORK');
```

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1 row created.

```
SQL> INSERT INTO MYDEPT
      2  VALUES (20, 'RESEARCH', 'DALLAS');
```

1 row created.

```
SQL> INSERT INTO MYDEPT
      2  VALUES (30, 'SALES', 'CHICAGO');
```

1 row created.

```
SQL> INSERT INTO MYDEPT
      2  VALUES (40, 'OPERATIONS', 'BOSTON');
```

1 row created.

```
SQL> INSERT INTO MYDEPT
      2  VALUES (11, 'SHIPPING', 'NEWYORK');
INSERT INTO MYDEPT
*
```

ERROR at line 1:

ORA-02290: check constraint (SCOTT.MYDEPT\_LOC\_CHK02) violated

```
SQL> INSERT INTO MYDEPT
      2  VALUES (11, 'SHIPPING', 'NEW YORK');
INSERT INTO MYDEPT
*
```

ERROR at line 1:

ORA-02290: check constraint (SCOTT.MYDEPT\_DEPTNO\_CHK01) violated

```
SQL> INSERT INTO MYDEPT
      2  VALUES (50, 'SHIPPING', 'CHENNAI');
INSERT INTO MYDEPT
*
```

ERROR at line 1:

ORA-02290: check constraint (SCOTT.MYDEPT\_LOC\_CHK02) violated

```
SQL> INSERT INTO MYDEPT (DEPTNO, LOC)
      2  VALUES (50, 'NEW YORK');
INSERT INTO MYDEPT (DEPTNO, LOC)
*
```

ERROR at line 1:

ORA-02290: check constraint (SCOTT.MYDEPT\_DNAME\_CHK) violated

```
SQL> DROP TABLE MYDEPT PURGE;
```

Table dropped.

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---

```
SQL> CREATE TABLE MYDEPT
 2  (
 3  DEPTNO NUMBER(2)
 4  CONSTRAINT MYDEPT_DEPTNO_PK PRIMARY KEY
 5  CONSTRAINT MYDEPT_DEPTNO_CHK01
 6  CHECK(DEPTNO IN(10,20,30,40,50,60,70,80,90)),
 7  DNAME VARCHAR2(14)
 8  DEFAULT 'NOT GIVEN'
 9  CONSTRAINT MYDEPT_DNAME_NN NOT NULL
10  CONSTRAINT MYDEPT_DNAME_UNQ UNIQUE
11  CONSTRAINT MYDEPT_DNAME_CHK01
12  CHECK(DNAME=UPPER(DNAME)),
13  LOC VARCHAR2(16)
14  DEFAULT 'NOT GIVEN'
15  CONSTRAINT MYDEPT_LOC_NN NOT NULL
16  CONSTRAINT MYDEPT_LOC_CHK01
17  CHECK(LOC = UPPER(LOC))
18  CONSTRAINT MYDEPT_LOC_CHK02
19  CHECK(LOC IN('NEW YORK','DALLAS','BOSTON','CHICAGO'))
20 );
```

Table created.

```
SQL> INSERT INTO MYDEPT(DEPTNO,LOC)
 2  VALUES(10,'NEW YORK');
```

1 row created.

```
SQL> INSERT INTO MYDEPT (DEPTNO,DNAME)
 2  VALUES(50,'SHIPPING');
```

```
INSERT INTO MYDEPT (DEPTNO,DNAME)
*
```

ERROR at line 1:

ORA-02290: check constraint (SCOTT.MYDEPT\_LOC\_CHK02) violated

```
SQL> DROP TABLE MYDEPT PURGE;
```

Table dropped.

```
SQL> CREATE TABLE MYDEPT
 2  (
 3  DEPTNO NUMBER(2)
 4  CONSTRAINT MYDEPT_DEPTNO_PK PRIMARY KEY
 5  CONSTRAINT MYDEPT_DEPTNO_CHK01
 6  CHECK(DEPTNO IN(10,20,30,40,50,60,70,80,90)),
 7  DNAME VARCHAR2(14)
 8  DEFAULT 'NOT GIVEN'
 9  CONSTRAINT MYDEPT_DNAME_NN NOT NULL
10  CONSTRAINT MYDEPT_DNAME_UNQ UNIQUE
```

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```
11 CONSTRAINT MYDEPT_DNAME_CHK01
12 CHECK(DNAME=UPPER(DNAME)),
13 LOC VARCHAR2(16)
14 DEFAULT 'NOT GIVEN'
15 CONSTRAINT MYDEPT_LOC_NN NOT NULL
16 CONSTRAINT MYDEPT_LOC_CHK01
17 CHECK(LOC = UPPER(LOC))
18 CONSTRAINT MYDEPT_LOC_CHK02
19 CHECK(LOC IN('NEW YORK','DALLAS','BOSTON','CHICAGO','NOT GIVEN'))
20 );
```

Table created.

```
SQL> INSERT INTO MYDEPT(DEPTNO,LOC)
2 VALUES(10,'NEW YORK');
```

1 row created.

```
SQL> INSERT INTO MYDEPT (DEPTNO,DNAME)
2 VALUES(50,'SHIPPING');
```

1 row created.

```
SQL> INSERT INTO MYDEPT(DEPTNO,DNAME)
2 VALUES(60,'CARGO');
```

1 row created.

```
SQL> INSERT INTO MYDEPT(DEPTNO,LOC)
2 VALUES(20,'DALLAS');
```

```
INSERT INTO MYDEPT(DEPTNO,LOC)
*
```

ERROR at line 1:

ORA-00001: unique constraint (SCOTT.MYDEPT\_DNAME\_UNQ) violated

```
SQL> SELECT * FROM MYDEPT;
```

DEPTNO	DNAME	LOC
10	NOT GIVEN	NEW YORK
50	SHIPPING	NOT GIVEN
60	CARGO	NOT GIVEN

```
SQL> CREATE TABLE MYEMP
2 (
3 EMPNO NUMBER(4)
4 CONSTRAINT MYEMP_EMPNO_PK PRIMARY KEY
5 CONSTRAINT MYEMP_EMPNO_CHK01
6 CHECK(EMPNO BETWEEN 1001 AND 5000),
7 ENAME VARCHAR2(14)
8 DEFAULT 'NOT GIVEN'
9 CONSTRAINT MYEMP_EMPNO_NN NOT NULL
```

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---

```
10 CONSTRAINT MYEMP_ENAME_CHK01
11 CHECK(ENAME=UPPER(ENAME)) ,
12 JOB VARCHAR2(16)
13 CONSTRAINT MYEMP_JOB_NN NOT NULL
14 CONSTRAINT MYEMP_JOB_CHK01
15 CHECK(JOB=UPPER(JOB))
16 CONSTRAINT MYEMP_JOB_CHK02
17 CHECK(
18     JOB IN(
19         'PRESIDENT',
20         'MANAGER',
21         'ANALYST',
22         'SALESMAN',
23         'CLERK',
24         'NOT GIVEN'
25     )
26 ),
27 HIREDATE DATE
28 DEFAULT SYSDATE
29 CONSTRAINT MYEMP_HIREDATE_NN NOT NULL,
30 MGR NUMBER(4)
31 CONSTRAINT MY_EMP_CHK01
32 CHECK(MGR BETWEEN 1001 AND 5000)
33 CONSTRAINT MYEMP_MGR_FK
34 REFERENCES MYEMP(EMPNO)
35 ON DELETE SET NULL,
36 DEPTNO NUMBER(2)
37 CONSTRAINT MYEMP_DEPTNO_NN NOT NULL
38 CONSTRAINT MYEMP_DEPTNO_CHK01
39 CHECK(DEPTNO IN(10,20,30,40,50,60,70,80,90))
40 CONSTRAINT MYEMP_DEPTNO_FK
41 REFERENCES MYDEPT(DEPTNO)
42 ON DELETE CASCADE,
43 SAL NUMBER(8,2)
44 DEFAULT 1000
45 CONSTRAINT MYEMP_SAL_NN NOT NULL
46 CONSTRAINT MYEMP_SAL_CHK01
47 CHECK(SAL BETWEEN 800 AND 150000),
48 COMM NUMBER(8,2)
49 DEFAULT 0
50 CONSTRAINT MYEMP_COMM_CHK01
51 CHECK(COMM BETWEEN 0 AND 50000),
52 CONSTRAINT MYEMP_GROSSSALARYCHECK_CHK01
53 CHECK(SAL + NVL(COMM,0) <=150000)
54 )
55 /
```

Table created.

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---

```
SQL> --CONSTRAINTS Maintenance--
SQL> CREATE TABLE SAMPLEALT01
  2  (
  3    SAMPID NUMBER(2),
  4    SAMPNAME VARCHAR2(20),
  5    SAMPDATE DATE
  6  );
```

Table created.

```
SQL> ALTER TABLE SAMPLEALT01
  2  ADD
  3  (
  4    CONSTRAINT SAMPLEALT01_SAMPID_PK
  5    PRIMARY KEY(SAMPID)
  6  );
```

Table altered.

```
SQL> ALTER TABLE SAMPLEALT01
  2  ADD
  3  (
  4    CONSTRAINT SAMPLEALT01_SAMPNAME_UNQ
  5    UNIQUE(SAMPNAME)
  6  );
```

Table altered.

```
SQL> ALTER TABLE SAMPLEALT01
  2  ADD
  3  (
  4    SAMPNAME VARCHAR2(20)
  5    CONSTRAINT SAMPLEALT01_SAMPNAME_NN NOT NULL,
  6    SAMPDATE DATE
  7    CONSTRAINT SAMPLEALT01_SAMPDATE_NN NOT NULL
  8  );
```

SAMPNAME VARCHAR2(20)

\*

ERROR at line 4:

ORA-01430: column being added already exists in table

```
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```

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```
  1  ALTER TABLE SAMPLEALT01
  2  MODIFY
```

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---

```
3  (
4  SAMPNAME VARCHAR2(20)
5  CONSTRAINT SAMPLEALT01_SAMPNAME_NN NOT NULL,
6  SAMPDATE DATE
7  CONSTRAINT SAMPLEALT01_SAMPDATE_NN NOT NULL
8* )
SQL> /
```

Table altered.

```
SQL> --Dropping The Constraints--
SQL> ALTER TABLE SAMPLEALT01
2  DROP PRIMARY KEY CASCADE;
```

Table altered.

```
SQL> ALTER TABLE SAMPLEALT01
2  DROP UNIQUE(SAMPNAME) CASCADE;
```

Table altered.

```
SQL> ALTER TABLE SAMPLEALT01
2  DROP CONSTRAINT SAMPLEALT01_SAMPDATE_NN;
```

Table altered.

```
SQL> --Confirming The Constraints in The MetaData
SQL> COL TABLE_NAME FORMAT A10
SQL> COL COLUMN_NAME FORMAT A15
SQL> COL CONSTRAINT_NAME FORMAT A16
SQL> COL SEARCH_CONDITION FORMAT A60
SQL> SELECT TABLE_NAME, CONSTRAINT_NAME, CONSTRAINT_TYPE,
2  SEARCH_CONDITION
3  FROM USER_CONSTRAINTS
4  WHERE TABLE_NAME='MYDEPT';
```

TABLE_NAME	CONSTRAINT_NAME	C	SEARCH_CONDITION
MYDEPT	MYDEPT_DNAME_NN	C	"DNAME" IS NOT NULL
MYDEPT	MYDEPT_LOC_NN	C	"LOC" IS NOT NULL
MYDEPT	MYDEPT_DEPTNO_CHK01	C	DEPTNO IN(10,20,30,40,50,60,70,80,90)
MYDEPT	MYDEPT_DNAME_CHK	C	DNAME=UPPER(DNAME)
MYDEPT	MYDEPT_LOC_CHK01	C	LOC = UPPER(LOC)
MYDEPT	MYDEPT_LOC_CHK02	C	LOC IN(
			'NEW YORK',
			'DALLAS',
			'BOSTON',
			'CHICAGO



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---

```
MYDEPT      MYDEPT_DEPTNO_PK P
MYDEPT      MYDEPT_DNAME_UNQ U
```

8 rows selected.

```
SQL> SELECT TABLE_NAME, CONSTRAINT_NAME, COLUMN_NAME
       2 FROM USER_CONS_COLUMNS
       3 WHERE TABLE_NAME='MYDEPT';
```

TABLE_NAME	CONSTRAINT_NAME	COLUMN_NAME
MYDEPT	MYDEPT_DNAME_NN	DNAME
MYDEPT	MYDEPT_LOC_NN	LOC
MYDEPT	MYDEPT_DEPTNO_CH K01	DEPTNO
MYDEPT	MYDEPT_DNAME_CHK	DNAME
MYDEPT	MYDEPT_LOC_CHK01	LOC
MYDEPT	MYDEPT_LOC_CHK02	LOC
MYDEPT	MYDEPT_DEPTNO_PK	DEPTNO
MYDEPT	MYDEPT_DNAME_UNQ	DNAME

8 rows selected.

```
SQL> SPOOL OFF
```