**데이터베이스 시스템 과제물 제출**

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**제출일자 : 22.11.14**



**[문제 1] 조건을 만족하는 칼럼 값 복사하기**

SQL> create table emp3 (

2 empno number(5),

3 ename varchar2(10),

4 sal number(10));

Table created.

SQL> create table emp4 (

2 empno number(5),

3 ename varchar2(10),

4 sal number(10));

Table created.

SQL> insert all

2 when empno between 1 and 7800 then

3 into emp3 values(empno, ename, sal)

4 when empno between 7801 and 10000 then

5 into emp4 values(empno, ename, sal)

6 select empno, ename, sal

7 from emp;

17 rows created.

SQL> select \* from emp3;

EMPNO ENAME SAL

---------- ---------- ----------

7698 BLAKE 2850

7782 CLARK 2450

7566 JONES 2975

7788 SCOTT 3000

7369 SMITH 800

7499 ALLEN 1600

7521 WARD 1250

7654 MARTIN 1250

1000 Tiger 3600

1000 Tiger 3600

2000 Cat 3000

11 rows selected.

SQL> select \* from emp4;

EMPNO ENAME SAL

---------- ---------- ----------

7839 KING 5000

7902 FORD 3000

7844 TURNER 1500

7876 ADAMS 1100

7900 JAMES 950

7934 MILLER 1300

6 rows selected.

**조건을 만족하는 칼럼 값을 복사하여 새로운 테이블에 삽입했습니다.**

**[문제2] 동시에 칼럼의 값을 복사하기**

SQL> truncate table emp3;

Table truncated.

SQL> truncate table emp4;

Table truncated.

SQL> insert all

2 into emp3 values (empno, ename, sal)

3 into emp4 values (empno, ename, sal)

4 select empno, ename, sal

5 from emp

6 where empno between 7500 and 7900;

20 rows created.

SQL> select \* from emp3;

EMPNO ENAME SAL

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7839 KING 5000

7698 BLAKE 2850

7782 CLARK 2450

7566 JONES 2975

7788 SCOTT 3000

7521 WARD 1250

7654 MARTIN 1250

7844 TURNER 1500

7876 ADAMS 1100

7900 JAMES 950

10 rows selected.

SQL> select \* from emp4;

EMPNO ENAME SAL

---------- ---------- ----------

7839 KING 5000

7698 BLAKE 2850

7782 CLARK 2450

7566 JONES 2975

7788 SCOTT 3000

7521 WARD 1250

7654 MARTIN 1250

7844 TURNER 1500

7876 ADAMS 1100

7900 JAMES 950

10 rows selected.

**테이블의 값을 비운 뒤에 동시에 값을 복사하였으며, 결과는 같았습니다.**

**[문제3] DBMS\_RANDOM 실습하기**

(1) .noraml : 표준 정규분포에서 임의값 추출하기

SQL> select level no, dbms\_random.normal

2 from dual

3 connect by level <= 5;

NO NORMAL

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1 .979998058

2 .829125915

3 -1.7811186

4 .170465223

5 -1.0461512

(2) .random: -(2의 31제곱)보다 크거나 같고 2의 31제곱보다 작은 임의의 정수 생성하기

SQL> select level no, dbms\_random.random

2 from dual

3 connect by level <= 5;

NO RANDOM

---------- ----------

1 1542046826

2 749004194

3 -728325239

4 34668224

5 -1.349E+09

(3) .string : 임의의 문자열 생성하기

SQL> select dbms\_random.string('u', 5) as "u\_val"

2 , dbms\_random.string('U', 5) as "U\_val"

3 , dbms\_random.string('l', 5) as "l\_val"

4 , dbms\_random.string('L', 5) as "L\_val"

5 , dbms\_random.string('a', 5) as "a\_val"

6 , dbms\_random.string('A', 5) as "A\_val"

7 , dbms\_random.string('x', 5) as "x\_val"

8 , dbms\_random.string('X', 5) as "X\_val"

9 , dbms\_random.string('p', 5) as "p\_val"

10 , dbms\_random.string('P', 5) as "P\_val"

11 from dual

12 connect by level <= 5;

u\_val U\_val l\_val L\_val a\_val A\_val x\_val X\_val p\_val P\_val

----- ----- ----- ----- ----- ----- ----- ----- ----- -----

PMNFU IZIUH cegqd rvvcw cTHaZ GUSQG 9U1HG H75OO ^v6). !=k97

YVVLR CPYPC mgevt ormuv SYmQx kUXPn DB65K XXNE1 W`FpR GKuU{

WRGAO XNFXZ wzgtg becme fMHKj uuKLb O84KS Y8PDH vk\\_m oeWy"

PBDSE NOEFU kflao qymmq cEuHr VEtof XH9D8 UROQ0 g]tnQ JIV/:

MHRVE LMFPY dnqme qafsh hjHSX DbQlA PJ5GF 3XRLT ju2CP w<w$6

(4) .value : 범위 내에서 임의의 숫자 생성하기

SQL> select dbms\_random.value as val1

2 , dbms\_random.value(1, 10) as val2

3 , dbms\_random.value(100, 1000) as val3

4 , trunc(dbms\_random.value(1000, 10000)) as val4

5 from dual

6 connect by level <= 5;

VAL1 VAL2 VAL3 VAL4

---------- ---------- ---------- ----------

.72906913 1.76104851 335.798813 3752

.64485524 9.28900664 396.004154 2827

.141801624 8.92385499 498.367321 2681

.777413974 7.53901675 460.384753 6203

.602082195 6.10902276 330.563805 7994

(5) 100에서 5000사이의 임의의 수 조회하기

SQL> select dbms\_random.value(100, 5000) random

2 from dual;

RANDOM

----------

2365.1924

(6) 10에서 100 사이의 임의의 정수 조회하기

SQL> select trunc(dbms\_random.value(10, 100)) random

2 from dual;

RANDOM

----------

83

(7) 테이블을 임의로 정렬하기

SQL> select \* from emp

2 where rownum <= 10

3 order by dbms\_random.random();

EMPNO ENAME JOB MGR HIREDATE SAL COMM

---------- ---------- --------- ---------- --------- ---------- ----------

DEPTNO

----------

7839 KING PRESIDENT 17-NOV-96 5000

10

7566 JONES MANAGER 7839 04-FEB-01 2975

20

7654 MARTIN SALESMAN 7698 28-SEP-81 1250 1400

30

EMPNO ENAME JOB MGR HIREDATE SAL COMM

---------- ---------- --------- ---------- --------- ---------- ----------

DEPTNO

----------

7369 SMITH CLERK 7902 01-DEC-07 800

20

7521 WARD SALESMAN 7698 22-FEB-81 1250 500

30

7902 FORD ANALYST 7566 12-MAR-81 3000

20

EMPNO ENAME JOB MGR HIREDATE SAL COMM

---------- ---------- --------- ---------- --------- ---------- ----------

DEPTNO

----------

7499 ALLEN SALESMAN 7698 20-FEB-81 1600 300

30

7788 SCOTT ANALYST 7566 17-JUN-03 3000

20

7782 CLARK MANAGER 7839 06-SEP-99 2450

10

EMPNO ENAME JOB MGR HIREDATE SAL COMM

---------- ---------- --------- ---------- --------- ---------- ----------

DEPTNO

----------

7698 BLAKE MANAGER 7839 05-JAN-91 2850

30

10 rows selected.

(8) 랜덤한 문자열 출력하기

SQL> select dbms\_random.string('U', 5) as "upper"

2 , dbms\_random.string('L', 5) as "lower"

3 , dbms\_random.string('A', 5) as "eng"

4 , dbms\_random.string('X', 5) as "engnum"

5 , dbms\_random.string('P', 5) as "coll"

6 from dual

7 connect by level <= 5;

upper lower eng engnu coll

----- ----- ----- ----- -----

KZIJM mqpzj xTcJY SYRPR f/-D7

WTYLQ mowtn MKCIe X7500 XcXx=

FARLQ qwbhx EGGrG HMQ8M Cs{qh

TTWZE ezzcb GKkqq 5A6AE $`jf7

FCMXE zukhq qBBMz 58BJX ;h"Gw

**DBMS\_RANDOM을 모두 실습해 보았습니다. 길이는 임의로 제가 설정하였습니다.**

**[문제4] FM0000 형식 사용하기**

SQL> select to\_char(0.40, '99.999') STR

2 from dual;

STR

-------

.400

SQL> select to\_char(0.40, 'FM99.99') STR

2 from dual;

STR

------

.4

**FM형식을 이용하여 실습하면 결과가 다른 것을 확인하였습니다.**

**[문제5] 제약 조건 실습하기**

SQL> create table stu (

2 stuno number,

3 name varchar2(6),

4 deptno number);

Table created.

SQL> create table coll (

2 deptno number,

3 deptname varchar2(10));

Table created.

SQL> alter table stu

2 add constraint stu\_deptno\_fk foreign key(deptno)

3 references coll(deptno);

references coll(deptno)

\*

ERROR at line 3:

ORA-02270: no matching unique or primary key for this column-list

SQL> alter table coll

2 add constraint coll\_deptno\_uk unique(deptno);

Table altered.

SQL> alter table stu

2 add constraint stu\_deptno\_fk foreign key(deptno)

3 references coll(deptno)

4 on delete cascade;

Table altered.

SQL> insert into coll values(10,'AAAA');

1 row created.

SQL> insert into coll values(20,'BBBB');

1 row created.

SQL> insert into coll values(30,'CCCC');

1 row created.

SQL> commit;

Commit complete.

SQL> select \* from coll;

DEPTNO DEPTNAME

---------- ----------

10 AAAA

20 BBBB

30 CCCC

SQL> insert into stu values(1,'apple',10);

1 row created.

SQL> insert into stu values(2,'banana',20);

1 row created.

SQL> insert into stu values(3,'cherry',30);

1 row created.

SQL> insert into stu values(4,'peach',40);

insert into stu values(4,'peach',40)

\*

ERROR at line 1:

ORA-02291: integrity constraint (USER17.STU\_DEPTNO\_FK) violated - parent key

not found

SQL> select \* from stu;

STUNO NAME DEPTNO

---------- ------ ----------

1 apple 10

2 banana 20

3 cherry 30

SQL> delete from coll where deptno = 10;

1 row deleted.

SQL> select \* from stu;

STUNO NAME DEPTNO

---------- ------ ----------

2 banana 20

3 cherry 30

SQL> alter table stu drop constraints stu\_deptno\_fk;

Table altered.

SQL> alter table stu

2 add constraint stu\_deptno\_fk foreign key(deptno)

3 references coll(deptno)

4 on delete set null;

Table altered.

SQL> delete from coll where deptno = 20;

1 row deleted.

SQL> select \* from stu;

STUNO NAME DEPTNO

---------- ------ ----------

2 banana

3 cherry 30

**각 테이블 별로 제약조건에 따른 입력 오류들을 확인하였습니다.**