**Lab 2 CS 514 Spring 2013**

**Nanditha S Murthy**

**816274154**

Script started on Thu Feb 21 09:49:22 2013

> sqlplus st19/CS514@cfedb.sdsu.edu

SQL\*Plus: Release 10.2.0.1.0 - Production on Thu Feb 21 09:49:44 2013

Copyright (c) 1982, 2005, Oracle. All rights reserved.

Connected to:

Oracle Database 10g Enterprise Edition Release 10.2.0.1.0 - Production

With the Partitioning, OLAP and Data Mining options

SQL> start lab2

SQL>

**SQL> -- Lab 2 CS 514 Spring 2013**

**SQL> --Nanditha S Murthy**

**SQL> --816274154**

**SQL>**

SQL> spool lab2

SQL>

SQL> --1. Make empno the primary key of both empbb02 and infobb02. Make

SQL> -- deptno the primary key for deptbb02. Create the primary key

SQL> -- discussed in class for salsbb02. Use the naming convention for

SQL> -- all constraints in Lab2, that was given in class.

SQL>

SQL>

SQL> ALTER TABLE empbb02

2 ADD CONSTRAINT empbb02\_EMPNO\_pk PRIMARY KEY (EMPNO);

Table altered.

SQL>

SQL>

SQL>

SQL> ALTER TABLE infobb02

2 ADD CONSTRAINT infobb02\_EMPNO\_pk PRIMARY KEY (EMPNO);

Table altered.

SQL>

SQL>

SQL>

SQL> ALTER TABLE deptbb02

2 ADD CONSTRAINT deptbb02\_DEPTNO\_pk PRIMARY KEY (DEPTNO);

Table altered.

SQL>

SQL>

SQL>

SQL> ALTER TABLE salsbb02

2 ADD CONSTRAINT salsbb02\_GRADE\_ROLE\_pk PRIMARY KEY (GRADE,ROLE);

Table altered.

SQL>

SQL>

SQL>

SQL> --2. Check your primary key for empbb02 by attempting to add a player

SQL> -- with a null value for empno.

SQL>

SQL> INSERT into empbb02 values(NULL,'nand','pitcher',999,'09-DEC-99',40000,30,5000);

INSERT into empbb02 values(NULL,'nand','pitcher',999,'09-DEC-99',40000,30,5000)

\*

ERROR at line 1:

ORA-01400: cannot insert NULL into ("ST19"."EMPBB02"."EMPNO")

SQL>

SQL>

SQL>

SQL> --3. Add a unique constraint for ename in empbb02.

SQL>

SQL> ALTER TABLE empbb02

2 ADD CONSTRAINT empbb02\_ENAME\_uc UNIQUE (ENAME);

Table altered.

SQL>

SQL>

SQL>

SQL> --4. The team has decided that, except for coaches (dept. 40), a player

SQL> -- name should not exceed 9 letters. Implement this as a check constraint.

SQL>

SQL>

SQL> ALTER TABLE EMPBB02

2 ADD CONSTRAINT empbb02\_ENAME\_ck CHECK (pos = 'coach' or (pos<>'coach' and length(ename)<10));

Table altered.

SQL>

SQL>

SQL> --To clarify whether CHECK constraint is correct i tried executing the following insert statements :

SQL> --1) Pos=Coach and name=10 - Pass

SQL> --SQL>insert into empbb02 values('345','Nandithasm','coach','912','01-jan-13', 10000, 40,900);

SQL>

SQL>

SQL> --2) Pos=coach and name <10 - Pass

SQL> --SQL>insert into empbb02 values('345','Nandithas','coach','912','01-jan-13', 10000, 40,900);

SQL>

SQL> --3) Pos != coach and name<10 - pass

SQL> --SQL>insert into empbb02 values('345','Nandithas','gm','912','01-jan-13', 10000, 40,900);

SQL>

SQL>

SQL>

SQL> -- 5. Violate the constraint in 4. to make sure you did it correctly.

SQL>

SQL> insert into empbb02 values('345','Nandithasm','gm','912','01-jan-13', 10000, 40,900);

insert into empbb02 values('345','Nandithasm','gm','912','01-jan-13', 10000, 40,900)

\*

ERROR at line 1:

ORA-02290: check constraint (ST19.EMPBB02\_ENAME\_CK) violated

SQL>

SQL>

SQL> -- 6. Make empno a foreign key in infobb02, with parent table empbb02

SQL>

SQL> ALTER TABLE infobb02

2 ADD CONSTRAINT infobb02\_EMPNO\_fk FOREIGN KEY(EMPNO) REFERENCES empbb02(EMPNO);

Table altered.

SQL>

SQL>

SQL>

SQL> -- 7. Make depno a foreign key in empbb02, with parent table deptbb02

SQL>

SQL> ALTER TABLE empbb02

2 ADD CONSTRAINT empbb02\_DEPTNO\_fk FOREIGN KEY(DEPTNO) REFERENCES deptbb02(DEPTNO);

Table altered.

SQL>

SQL>

SQL>

SQL> -- 8. Test one of your foreign key constraints to make sure it is working.

SQL>

SQL> insert into empbb02 values('12','Nandu','gm','712','01-jan-13', 10000, 60,900);

insert into empbb02 values('12','Nandu','gm','712','01-jan-13', 10000, 60,900)

\*

ERROR at line 1:

ORA-02291: integrity constraint (ST19.EMPBB02\_DEPTNO\_FK) violated - parent key

not found

SQL>

SQL>

SQL>

SQL> -- 9. Display ename, pos, sal from empbb02 for all employees not in

SQL> -- department 40. Make the column headers Last Name, Position, Salary.

SQL>

SQL>

SQL> SELECT ename as Last\_Name,pos as Position,sal as Salary from empbb02 WHERE deptno<>40;

LAST\_NAME POSITION SALARY

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

musial right field 42000

gehrig first base 85000

minoso shortstop 85000

sandberg second base 25000

cey third base 15000

williams left field 150000

johnson pitcher 50000

brown pitcher 40000

mays center field 240000

mungo pitcher 20000

rodriguez catcher 100000

11 rows selected.

SQL>

SQL>

SQL>

SQL> -- 10. Describe the meta-table user\_constraints, and notice the first

SQL> -- five fields. Display your constraints, using these five fields.

SQL>

SQL>

SQL> desc user\_constraints;

Name Null? Type

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

OWNER NOT NULL VARCHAR2(30)

CONSTRAINT\_NAME NOT NULL VARCHAR2(30)

CONSTRAINT\_TYPE VARCHAR2(1)

TABLE\_NAME NOT NULL VARCHAR2(30)

SEARCH\_CONDITION LONG

R\_OWNER VARCHAR2(30)

R\_CONSTRAINT\_NAME VARCHAR2(30)

DELETE\_RULE VARCHAR2(9)

STATUS VARCHAR2(8)

DEFERRABLE VARCHAR2(14)

DEFERRED VARCHAR2(9)

VALIDATED VARCHAR2(13)

GENERATED VARCHAR2(14)

BAD VARCHAR2(3)

RELY VARCHAR2(4)

LAST\_CHANGE DATE

INDEX\_OWNER VARCHAR2(30)

INDEX\_NAME VARCHAR2(30)

INVALID VARCHAR2(7)

VIEW\_RELATED VARCHAR2(14)

SQL>

SQL> SELECT OWNER,CONSTRAINT\_NAME, CONSTRAINT\_TYPE,TABLE\_NAME,SEARCH\_CONDITION FROM USER\_CONSTRAINTS where OWNER = 'ST19';

OWNER CONSTRAINT\_NAME C

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

TABLE\_NAME

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

SEARCH\_CONDITION

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

ST19 INFOBB02\_EMPNO\_FK R

INFOBB02

ST19 EMPBB02\_DEPTNO\_FK R

EMPBB02

ST19 EMPBB02\_EMPNO\_PK P

EMPBB02

ST19 INFOBB02\_EMPNO\_PK P

INFOBB02

ST19 DEPTBB02\_DEPTNO\_PK P

DEPTBB02

ST19 SALSBB02\_GRADE\_ROLE\_PK P

SALSBB02

ST19 EMPBB02\_ENAME\_UC U

EMPBB02

ST19 EMPBB02\_ENAME\_CK C

EMPBB02

pos = 'coach' or (pos<>'coach' and length(ename)<10)

8 rows selected.

SQL>

SQL>

SQL>

SQL> -- 11. Drop the check constraint that you made earlier.

SQL>

SQL>

SQL> ALTER TABLE empbb02

2 DROP CONSTRAINT empbb02\_ENAME\_ck;

Table altered.

SQL>

SQL>

SQL> spool off

SQL> set echo off

Disconnected from Oracle Database 10g Enterprise Edition Release 10.2.0.1.0 - Production

With the Partitioning, OLAP and Data Mining options

> exit

exit

script done on Thu Feb 21 09:50:08 2013