

CS - 514 DATABASE THEORY & IMPLEMENTATION

HOMEWORK - 2

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LAB 2 - OUTPUT : *lab2.lst*

```
> vi lab2.lst
"lab2.lst" 168 lines, 5470 characters
SQL> set pause on
SQL> set pages 30
SQL> --THIS IS A COMMENT
SQL> --1.a) Assign empno as Primary Key for the table empbb02
SQL>
SQL> ALTER TABLE empbb02 ADD CONSTRAINT empbb02_empno_pk PRIMARY KEY(EMPNO);

Table altered.

SQL>
SQL> --1.b) Assign empno as Primary Key for the table infobb02
SQL>
SQL> ALTER TABLE infobb02 ADD CONSTRAINT infobb02_empno_pk PRIMARY KEY(EMPNO);

Table altered.

SQL>
SQL> --1.c) Assign deptno as Primary Key for the table deptbb02
SQL>
SQL> ALTER TABLE deptbb02 ADD CONSTRAINT deptbb02_deptno_pk PRIMARY KEY(DEPTNO);

Table altered.

SQL>
SQL> --2.Check primary key constraint: Insert deptno as null to the table deptbbo2
SQL>
SQL> INSERT INTO deptbb02 VALUES(null,'infield','PF Chang','La Jolla','YOLO');
INSERT INTO deptbb02 VALUES(null,'infield','PF Chang','La Jolla','YOLO')
                                *
ERROR at line 1:
ORA-01400: cannot insert NULL into ("ST33"."DEPTBB02"."DEPTNO")

SQL>
SQL> --3.Assign primary key for the table salsbb02
SQL>
SQL> ALTER TABLE salsbb02 ADD CONSTRAINT salsbb02_grade_role_pk PRIMARY
KEY(GRADE,ROLE);

Table altered.

SQL>
SQL> --4.Set Unique key constraint to the table deptbb02
SQL>
SQL> ALTER TABLE deptbb02 ADD CONSTRAINT deptbb02_dname_uk UNIQUE(DNAME);

Table altered.

SQL>
```

```
SQL> --5.Format the display of deptbb02 without wrapping the moto column
SQL> --BEFORE FORMATTING
SQL> SELECT * FROM DEPTBB02;
```

Mon Jul 13

page 1

Lab # 2
CS514

DEPTNO	DNAME	RESTAURANT	LOCATION

MOTTO			

10	infield	Jade	Clairmont
Let's play two!			
20	outfield	House of Pasta	Santee
Alea iacta est			
30	pitcher	Crab Shack	Pacific Beach
Semper paratus			
40	staff	Burger King	Lakeside
Experientia docet			
50	catchers	Pinnacle Peak	Santee
Non bastardi carborundum			

Report Done

```
SQL> COLUMN MOTTO FORMAT a25
SQL> --AFTER FORMATTING
SQL> /
```

Mon Jul 13

page 1

Lab # 2
CS514

DEPTNO	DNAME	RESTAURANT	LOCATION	MOTTO

10	infield	Jade	Clairmont	Let's play two!
20	outfield	House of Pasta	Santee	Alea iacta est
30	pitcher	Crab Shack	Pacific Beach	Semper paratus
40	staff	Burger King	Lakeside	Experientia docet
50	catchers	Pinnacle Peak	Santee	Non bastardi carborundum

Report Done

```
SQL> --6.a)Set empno from infobb02 as the Foreign key with empbb02 as parent table
SQL> ALTER TABLE infobb02 ADD CONSTRAINT infobb02_empbb02_fk
      2 FOREIGN KEY(EMPNO) REFERENCES empbb02(EMPNO);
```

Table altered.

```
SQL>
SQL> --6.b)Set deptno from empbb02 as the Foreign key with deptbb02 as parent table
SQL>
SQL> ALTER TABLE empbb02 ADD CONSTRAINT empbb02_deptbb02_fk
      2 FOREIGN KEY(DEPTNO) REFERENCES deptbb02(DEPTNO);
```

Table altered.

```
SQL>
SQL> --7.Add Check constraint to last name starting with 'Q'
SQL>
SQL> ALTER TABLE empbb02 ADD CONSTRAINT empbb02_ename_ck
      2 CHECK(SUBSTR(ENAME,1,1) NOT IN('q','Q'));
```

Table altered.

```
SQL>
SQL> --8.Test the Check constraint Try to hire a player whose name is Dan Quiseberry
SQL>
SQL> INSERT INTO empbb02 VALUES('745','Quiseberry','pitcher','798','21-OCT-1999',
25000,30,4000);
INSERT INTO empbb02 VALUES('745','Quiseberry','pitcher','798','21-OCT-1999',
25000,30,4000)
*
ERROR at line 1:
ORA-02290: check constraint (ST33.EMPBB02_ENAME_CK) violated
```

```
SQL>
SQL> --9.Try dropping the parent table linked with the child table using foreign key
SQL>
SQL> DROP TABLE empbb02 PURGE;
DROP TABLE empbb02 PURGE
*
ERROR at line 1:
ORA-02449: unique/primary keys in table referenced by foreign keys
```

```
SQL> DROP TABLE deptbb02 PURGE;
DROP TABLE deptbb02 PURGE
*
ERROR at line 1:
ORA-02449: unique/primary keys in table referenced by foreign keys
```

```
SQL>
SQL> --set echo off
SQL> spool off
```

LIST OF TABLES WITH ITS FEILDS & CONSTRAINTS : hw2_updates.lst

> vi hw2_updates.lst

"hw2_updates.lst" 114 lines, 5414 characters

SQL> desc empbb02

Name	Null?	Type
-----	-----	-----
EMPNO	NOT NULL	VARCHAR2(5)
ENAME	NOT NULL	VARCHAR2(10)
POS		VARCHAR2(12)
BOSS		VARCHAR2(4)
HIREDATE		DATE
SAL		NUMBER(6)
DEPTNO		NUMBER(2)
INCENTIVES		NUMBER(6)

SQL> desc infobb02

Name	Null?	Type
-----	-----	-----
EMPNO	NOT NULL	VARCHAR2(5)
FNAME		VARCHAR2(10)
NICK		VARCHAR2(15)
UNI		VARCHAR2(4)
AVERAGE		NUMBER(4)
ERA		NUMBER(6,3)

SQL> desc deptbb02

Name	Null?	Type
-----	-----	-----
DEPTNO	NOT NULL	NUMBER(3)
DNAME		VARCHAR2(8)
RESTAURANT		VARCHAR2(15)
LOCATION		VARCHAR2(15)
MOTTO		VARCHAR2(30)

SQL> desc salsbb02

Name	Null?	Type
-----	-----	-----
GRADE	NOT NULL	NUMBER(2)
ROLE	NOT NULL	VARCHAR2(8)
LOSAL		NUMBER(6)
HISAL		NUMBER(6)

SQL> SET PAGES 200

SQL> SELECT OWNER,CONSTRAINT_NAME,CONSTRAINT_TYPE,TABLE_NAME FROM USER_CONSTRAINTS;

OWNER	CONSTRAINT_NAME	C
-----	-----	-----
TABLE_NAME		

ST33	EMPBB02_EMPNO_PK	P
EMPBB02		
ST33	INFOBB02_EMPNO_PK	P
INFOBB02		

ST33 EMPBB02	SYS_C00162229	C
ST33 DEPTBB02	DEPTBB02_DEPTNO_PK	P
ST33 SALSBB02	SALSBB02_GRADE_ROLE_PK	P
ST33 DEPTBB02	DEPTBB02_DNAME_UK	U
ST33 INFOBB02	INFOBB02_EMPBB02_FK	R
ST33 EMPBB02	EMPBB02_DEPTBB02_FK	R

SQL> spool off