SQL> @C:\Users\Praveen\dbms\DBMS\Ex01\Ex01\_commands.sql

SQL>

SQL> REM \*\*\*SSN COLLEGE OF ENGINEERING\*\*\*

SQL> REM \*\*\*DEPARTMENT OF COMPUTER SCIENCE ENGINEERING\*\*\*

SQL> REM \*\*\*DATABASE MANAGEMENT SYSTEMS LAB\*\*\*

SQL> REM \*\*\*Assignment 1: DDL Fundamentals\*\*\*

SQL>

SQL> REM \*\*\*Drop existing tables\*\*\*

SQL> Drop table order\_details;

Table dropped.

SQL> drop table order\_purchase;

Table dropped.

SQL> drop table part;

Table dropped.

SQL> drop table customer;

Table dropped.

SQL> drop table employee;

Table dropped.

SQL> drop table pincode;

Table dropped.

SQL>

SQL>

SQL> REM \*\*\*Creating Tables\*\*\*

SQL> create table pincode(

2 pin number(6) constraint pin\_pk primary key,

3 loc char(15)

4 );

Table created.

SQL>

SQL>

SQL>

SQL> REM \*\*\*\*\* Voilating constraints of pincode table \*\*\*\*\*

SQL> REM Voilating pimary key constraint for pincode

SQL> insert into pincode(pin,loc)

2 values(600103,'Anna nagar');

1 row created.

SQL> insert into pincode(pin,loc)

2 values(600103,'KK nagar');

insert into pincode(pin,loc)

\*

ERROR at line 1:

ORA-00001: unique constraint (SCOTT.PIN\_PK) violated

SQL>

SQL>

SQL>

SQL> create table employee(

2 emp\_no varchar2(5) constraint emp\_pk primary key,

3 emp\_name char(15),

4 dob DATE,

5 pin number(6) constraint emp\_fk references pincode(pin),

6 constraint emp\_format check(emp\_no like 'E%')

7 );

Table created.

SQL>

SQL>

SQL> REM \*\*\*\*\* Voilating constraints of employee table \*\*\*\*\*

SQL> REM Voilating pimary key constraint for pincode

SQL> insert into employee(emp\_no,emp\_name,dob,pin)

2 values('E0002','Jhon', TO\_DATE('20/12/1995', 'DD/MM/YYYY'), 600103);

1 row created.

SQL> insert into employee(emp\_no,emp\_name,dob,pin)

2 values('E0002','Mukesh', TO\_DATE('20/12/1995', 'DD/MM/YYYY'), 600103);

insert into employee(emp\_no,emp\_name,dob,pin)

\*

ERROR at line 1:

ORA-00001: unique constraint (SCOTT.EMP\_PK) violated

SQL> REM voilating foreign key constraint of employee table

SQL> insert into employee(emp\_no,emp\_name,dob,pin)

2 values('E0008','Susan', TO\_DATE('15/06/1989', 'DD/MM/YYYY'), 600000);

insert into employee(emp\_no,emp\_name,dob,pin)

\*

ERROR at line 1:

ORA-02291: integrity constraint (SCOTT.EMP\_FK) violated - parent key not found

SQL> REM voilating check constraint for employee table

SQL> insert into employee(emp\_no,emp\_name,dob,pin)

2 values('e0009','Susan', TO\_DATE('15/06/1989', 'DD/MM/YYYY'), 600103);

insert into employee(emp\_no,emp\_name,dob,pin)

\*

ERROR at line 1:

ORA-02290: check constraint (SCOTT.EMP\_FORMAT) violated

SQL>

SQL>

SQL> create table customer(

2 cust\_no varchar2(10) constraint customer\_pk primary key,

3 cust\_name char(15),

4 street\_name char(15),

5 pin number(6) constraint customer\_fk references pincode(pin),

6 dob DATE,

7 phone\_no number(10) constraint ph\_unique UNIQUE,

8 constraint cus\_format check(cust\_no like 'C%')

9 );

Table created.

SQL>

SQL>

SQL>

SQL> REM \*\*\*\*\* Voilating constraints of customer table \*\*\*\*\*

SQL> REM voilating primary key constraint of customer table

SQL>

SQL>

SQL> insert into customer(cust\_no, cust\_name, street\_name,pin, dob, phone\_no)

2 values('C00005', 'Jeff','Gold street', 600103, TO\_DATE('26/01/1969','DD/MM/YYYY'), 8762390123);

1 row created.

SQL> insert into customer(cust\_no, cust\_name, street\_name,pin, dob, phone\_no)

2 values('C00005', 'Buff','Silver street', 600103, TO\_DATE('26/01/1979','DD/MM/YYYY'), 8762390124);

insert into customer(cust\_no, cust\_name, street\_name,pin, dob, phone\_no)

\*

ERROR at line 1:

ORA-00001: unique constraint (SCOTT.CUSTOMER\_PK) violated

SQL> REM voilating foreign key constraint for customer table

SQL> insert into customer(cust\_no, cust\_name, street\_name,pin, dob, phone\_no)

2 values('C00006', 'Buff','Silver street', 600100, TO\_DATE('26/01/1979','DD/MM/YYYY'), 8762390124);

insert into customer(cust\_no, cust\_name, street\_name,pin, dob, phone\_no)

\*

ERROR at line 1:

ORA-02291: integrity constraint (SCOTT.CUSTOMER\_FK) violated - parent key not

found

SQL> REM voilating unique key contraint of phone number attribute

SQL> insert into customer(cust\_no, cust\_name, street\_name,pin, dob, phone\_no)

2 values('C00006', 'Buff','Silver street', 600103, TO\_DATE('26/01/1979','DD/MM/YYYY'), 8762390123);

insert into customer(cust\_no, cust\_name, street\_name,pin, dob, phone\_no)

\*

ERROR at line 1:

ORA-00001: unique constraint (SCOTT.PH\_UNIQUE) violated

SQL> REM voilating check constraint of customer ID

SQL> insert into customer(cust\_no, cust\_name, street\_name,pin, dob, phone\_no)

2 values('c00006', 'Jeff','Gold street', 600103, TO\_DATE('26/01/1969','DD/MM/YYYY'), 8762390123);

insert into customer(cust\_no, cust\_name, street\_name,pin, dob, phone\_no)

\*

ERROR at line 1:

ORA-02290: check constraint (SCOTT.CUS\_FORMAT) violated

SQL>

SQL>

SQL> create table part(

2 p\_no varchar2(15) constraint part\_pk primary key,

3 p\_name char(15),

4 price number(10) constraint part\_par not null,

5 qty number(10) constraint quantity\_ch check(qty>0),

6 constraint part\_format check (p\_no like 'P%')

7 );

Table created.

SQL> REM \*\*\*\*\* Voilating constraints of part table \*\*\*\*\*

SQL> REM voilating primary key constraint of part table

SQL> insert into part(p\_no, p\_name, price, qty)

2 values('P0011','Cotton', 300, 76);

1 row created.

SQL> insert into part(p\_no, p\_name, price, qty)

2 values('P0011','Woll', 300, 76);

insert into part(p\_no, p\_name, price, qty)

\*

ERROR at line 1:

ORA-00001: unique constraint (SCOTT.PART\_PK) violated

SQL> REM Voilating not null constraint of price

SQL> insert into part(p\_no, p\_name, price, qty)

2 values('P0012','Fur', null, 76);

values('P0012','Fur', null, 76)

\*

ERROR at line 2:

ORA-01400: cannot insert NULL into ("SCOTT"."PART"."PRICE")

SQL> REM voilating check constraint of quantity

SQL> insert into part(p\_no, p\_name, price, qty)

2 values('P0013','Bed', 300, 0);

insert into part(p\_no, p\_name, price, qty)

\*

ERROR at line 1:

ORA-02290: check constraint (SCOTT.QUANTITY\_CH) violated

SQL> REM voilating check constraint of part name

SQL> insert into part(p\_no, p\_name, price, qty)

2 values('p0013','Bed', 300, 50);

insert into part(p\_no, p\_name, price, qty)

\*

ERROR at line 1:

ORA-02290: check constraint (SCOTT.PART\_FORMAT) violated

SQL> create table order\_purchase(

2 o\_no varchar2(5) constraint order\_k primary key,

3 emp\_no varchar2(5) constraint empploy\_fk1 references employee(emp\_no),

4 cust\_no varchar2(10) constraint customer\_fk1 references customer(cust\_no),

5 rd DATE,

6 sd DATE,

7 constraint date\_ck check(rd<sd)

8 );

Table created.

SQL> REM \*\*\*\*\* Voilating constraints of order\_purchase table \*\*\*\*\*

SQL> REM voilating primary key constraint of order\_purchase table

SQL> insert into order\_purchase(o\_no,emp\_no,cust\_no,rd,sd)

2 values('1005','E0002','C00005',TO\_DATE('03/08/2009', 'DD/MM/YYYY'),TO\_DATE('09/10/2009', 'DD/MM/YYYY'));

1 row created.

SQL> insert into order\_purchase(o\_no,emp\_no,cust\_no,rd,sd)

2 values('1005','E0002','C00005',TO\_DATE('04/08/2009', 'DD/MM/YYYY'),TO\_DATE('10/10/2009', 'DD/MM/YYYY'));

insert into order\_purchase(o\_no,emp\_no,cust\_no,rd,sd)

\*

ERROR at line 1:

ORA-00001: unique constraint (SCOTT.ORDER\_K) violated

SQL> REM voilating foriegn key constraint of order\_purchase table

SQL> insert into order\_purchase(o\_no,emp\_no,cust\_no,rd,sd)

2 values('1006','E1234','C00005',TO\_DATE('04/08/2009', 'DD/MM/YYYY'),TO\_DATE('10/10/2009', 'DD/MM/YYYY'));

insert into order\_purchase(o\_no,emp\_no,cust\_no,rd,sd)

\*

ERROR at line 1:

ORA-02291: integrity constraint (SCOTT.EMPPLOY\_FK1) violated - parent key not

found

SQL> insert into order\_purchase(o\_no,emp\_no,cust\_no,rd,sd)

2 values('1007','E0002','C00032',TO\_DATE('04/08/2009', 'DD/MM/YYYY'),TO\_DATE('10/10/2009', 'DD/MM/YYYY'));

insert into order\_purchase(o\_no,emp\_no,cust\_no,rd,sd)

\*

ERROR at line 1:

ORA-02291: integrity constraint (SCOTT.CUSTOMER\_FK1) violated - parent key not

found

SQL> REM voilating check constraint rd<sd

SQL> insert into order\_purchase(o\_no,emp\_no,cust\_no,rd,sd)

2 values('1007','E0002','C00005',TO\_DATE('04/08/2009', 'DD/MM/YYYY'),TO\_DATE('10/10/1999', 'DD/MM/YYYY'));

insert into order\_purchase(o\_no,emp\_no,cust\_no,rd,sd)

\*

ERROR at line 1:

ORA-02290: check constraint (SCOTT.DATE\_CK) violated

SQL> create table order\_details(

2 o\_no varchar2(5) constraint order\_fk1 references order\_purchase(o\_no),

3 p\_no varchar2(15) constraint order\_fk2 references part(p\_no),

4 qty number(10) constraint qtych2 check(qty>0),

5 constraint ordder\_pk\_pk primary key(o\_no,p\_no)

6 );

Table created.

SQL> REM \*\*\*\*\* Voilating constraints of order\_details table \*\*\*\*\*

SQL> REM voilating primary key constraint of order\_details table

SQL> insert into order\_details(o\_no, p\_no,qty)

2 values('1005','P0011',6);

1 row created.

SQL> insert into order\_details(o\_no, p\_no,qty)

2 values('1005','P0011',5);

insert into order\_details(o\_no, p\_no,qty)

\*

ERROR at line 1:

ORA-00001: unique constraint (SCOTT.ORDDER\_PK\_PK) violated

SQL> REM voilating foreign key constraint of order\_details table

SQL> insert into order\_details(o\_no, p\_no,qty)

2 values('1078','P0011',5);

insert into order\_details(o\_no, p\_no,qty)

\*

ERROR at line 1:

ORA-02291: integrity constraint (SCOTT.ORDER\_FK1) violated - parent key not

found

SQL> insert into order\_details(o\_no, p\_no,qty)

2 values('1005','P0099',5);

insert into order\_details(o\_no, p\_no,qty)

\*

ERROR at line 1:

ORA-02291: integrity constraint (SCOTT.ORDER\_FK2) violated - parent key not

found

SQL>

SQL> REM \*\*\* THE DML COMMANDS \*\*\*

SQL>

SQL> REM 7. It is identified that the following attributes are to be included in respective relations:Parts (reorder level), Employees (hiredate)

SQL> desc parts;

ERROR:

ORA-04043: object parts does not exist

SQL>

SQL> alter table part

2 add reorder\_level number(5);

Table altered.

SQL>

SQL> desc part;

Name Null? Type

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

P\_NO NOT NULL VARCHAR2(15)

P\_NAME CHAR(15)

PRICE NOT NULL NUMBER(10)

QTY NUMBER(10)

REORDER\_LEVEL NUMBER(5)

SQL>

SQL> desc employee;

Name Null? Type

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

EMP\_NO NOT NULL VARCHAR2(5)

EMP\_NAME CHAR(15)

DOB DATE

PIN NUMBER(6)

SQL>

SQL> alter table employee

2 add hiredate DATE;

Table altered.

SQL>

SQL> desc employee;

Name Null? Type

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

EMP\_NO NOT NULL VARCHAR2(5)

EMP\_NAME CHAR(15)

DOB DATE

PIN NUMBER(6)

HIREDATE DATE

SQL>

SQL> REM 8.The width of a customer name is not adequate for most of the customers.

SQL>

SQL> alter table customer

2 modify cust\_name char(30);

Table altered.

SQL>

SQL> desc customer;

Name Null? Type

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

CUST\_NO NOT NULL VARCHAR2(10)

CUST\_NAME CHAR(30)

STREET\_NAME CHAR(15)

PIN NUMBER(6)

DOB DATE

PHONE\_NO NUMBER(10)

SQL>

SQL> REM 9. The dateofbirth of a customer can be addressed later / removed from the schema.

SQL>

SQL> alter table customer

2 drop column dob;

Table altered.

SQL>

SQL> desc customer;

Name Null? Type

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

CUST\_NO NOT NULL VARCHAR2(10)

CUST\_NAME CHAR(30)

STREET\_NAME CHAR(15)

PIN NUMBER(6)

PHONE\_NO NUMBER(10)

SQL>

SQL> REM 10. An order can not be placed without the receive date.

SQL>

SQL> alter table order\_purchase

2 modify rd date constraint ord\_notnull not null;

Table altered.

SQL>

SQL> desc order\_purchase;

Name Null? Type

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

O\_NO NOT NULL VARCHAR2(5)

EMP\_NO VARCHAR2(5)

CUST\_NO VARCHAR2(10)

RD NOT NULL DATE

SD DATE

SQL>

SQL> insert into order\_purchase(o\_no,emp\_no,cust\_no,rd,sd)

2 values('1006','E0002','C00004',null,TO\_DATE('25/12/2010', 'DD/MM/YYYY'));

values('1006','E0002','C00004',null,TO\_DATE('25/12/2010', 'DD/MM/YYYY'))

\*

ERROR at line 2:

ORA-01400: cannot insert NULL into ("SCOTT"."ORDER\_PURCHASE"."RD")

SQL>

SQL> REM 11. A customer may cancel an order or ordered part(s) may not be available in a stock.

SQL> REM Hence on removing the details of the order, ensure that all the corresponding details

SQL> REM are also deleted.

SQL>

SQL> insert into order\_purchase(o\_no,emp\_no,cust\_no,rd,sd)

2 values('1007','E0002','C00005',TO\_DATE('24/12/2018', 'DD/MM/YYYY'),TO\_DATE('25/12/2018', 'DD/MM/YYYY'));

1 row created.

SQL> insert into order\_details(o\_no, p\_no,qty)

2 values('1007','P0011',6);

1 row created.

SQL> insert into order\_purchase(o\_no,emp\_no,cust\_no,rd,sd)

2 values('1008','E0002','C00005',TO\_DATE('24/12/2018', 'DD/MM/YYYY'),TO\_DATE('25/12/2018', 'DD/MM/YYYY'));

1 row created.

SQL> insert into order\_details(o\_no, p\_no,qty)

2 values('1008','P0011',6);

1 row created.

SQL>

SQL> delete from order\_purchase

2 where o\_no = '1007';

delete from order\_purchase

\*

ERROR at line 1:

ORA-02292: integrity constraint (SCOTT.ORDER\_FK1) violated - child record found

SQL>

SQL> alter table order\_details drop constraint order\_fk1;

Table altered.

SQL> alter table order\_details add constraint or\_fk3 foreign key(o\_no) references order\_purchase(o\_no) on delete cascade;

Table altered.

SQL>

SQL> delete from order\_purchase

2 where o\_no = '1008';

1 row deleted.

SQL>

SQL>

SQL> desc order\_details;

Name Null? Type

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

O\_NO NOT NULL VARCHAR2(5)

P\_NO NOT NULL VARCHAR2(15)

QTY NUMBER(10)

SQL> spool off