SQL> create table category(cat\_id int primary key ,cat\_name varchar(10),description varchar(15));

Table created.

SQL> create table product(prod\_id int primary key,prod\_name varchar(10),cat\_id int,foreign key(cat\_id)references category(cat\_id),price number(7,2));

Table created.

SQL> desc category;

Name Null? Type

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

CAT\_ID NOT NULL NUMBER(38)

CAT\_NAME VARCHAR2(10)

DESCRIPTION VARCHAR2(15)

SQL> desc product;

Name Null? Type

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

PROD\_ID NOT NULL NUMBER(38)

PROD\_NAME VARCHAR2(10)

CAT\_ID NUMBER(38)

PRICE NUMBER(7,2)

SQL> insert into category values(1,'food','foods');

1 row created.

SQL> insert into category values(2,'clothes','summer clothes');

1 row created.

SQL> insert into category values(3,'stationary','drawing');

1 row created.

SQL> insert into product values(1,'cake',1,300);

1 row created.

SQL> insert into product values(2,'pen',3,100);

1 row created.

SQL> insert into product values(3,'pencil',3,19);

1 row created.

SQL> insert into product values(4,'tshirt',2,190);

1 row created.

SQL> insert into product values(5,'shirt',2,130);\

2 insert into product values(5,'shirt',2,130);

insert into product values(5,'shirt',2,130);\

\*

ERROR at line 1:

ORA-00911: invalid character

SQL> insert into product values(5,'shirt',2,130);

1 row created.

SQL> select \* from product,category where product.cat\_id=cateory.cat\_id;

select \* from product,category where product.cat\_id=cateory.cat\_id

\*

ERROR at line 1:

ORA-00904: "CATEORY"."CAT\_ID": invalid identifier

SQL> select \* from product,category where product.cat\_id=category.cat\_id;

PROD\_ID PROD\_NAME CAT\_ID PRICE CAT\_ID CAT\_NAME

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

DESCRIPTION

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

1 cake 1 300 1 food

foods

2 pen 3 100 3 stationary

drawing

3 pencil 3 19 3 stationary

drawing

PROD\_ID PROD\_NAME CAT\_ID PRICE CAT\_ID CAT\_NAME

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

DESCRIPTION

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

4 tshirt 2 190 2 clothes

summer clothes

5 shirt 2 130 2 clothes

summer clothes

SQL> select prod\_id,prod\_name,cat\_name from product natural join category;

PROD\_ID PROD\_NAME CAT\_NAME

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

1 cake food

2 pen stationary

3 pencil stationary

4 tshirt clothes

5 shirt clothes

SQL> select prod\_id,prod\_name,cat\_name,price from product natural join category;

PROD\_ID PROD\_NAME CAT\_NAME PRICE

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

1 cake food 300

2 pen stationary 100

3 pencil stationary 19

4 tshirt clothes 190

5 shirt clothes 130

SQL> select prod\_id,prod\_name,cat\_name from product inner join category on product.cat\_id=category.cat\_id;

PROD\_ID PROD\_NAME CAT\_NAME

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

1 cake food

2 pen stationary

3 pencil stationary

4 tshirt clothes

5 shirt clothes

SQL> select prod\_id,prod\_name,cat\_name from product inner join category;

select prod\_id,prod\_name,cat\_name from product inner join category

\*

ERROR at line 1:

ORA-00905: missing keyword

SQL> select cat\_name,description from category natural join product;

CAT\_NAME DESCRIPTION

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

food foods

stationary drawing

stationary drawing

clothes summer clothes

clothes summer clothes

SQL> select cat\_name,description,prod\_name,price from category natural join product;

CAT\_NAME DESCRIPTION PROD\_NAME PRICE

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

food foods cake 300

stationary drawing pen 100

stationary drawing pencil 19

clothes summer clothes tshirt 190

clothes summer clothes shirt 130

SQL> select prod\_id,prod\_name,cat\_name from product natural right outer join category;

PROD\_ID PROD\_NAME CAT\_NAME

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

1 cake food

2 pen stationary

3 pencil stationary

4 tshirt clothes

5 shirt clothes

SQL> select prod\_id,prod\_name,cat\_name from category natural right outer join product;

PROD\_ID PROD\_NAME CAT\_NAME

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

1 cake food

5 shirt clothes

4 tshirt clothes

3 pencil stationary

2 pen stationary

SQL> select prod\_id,prod\_name,cat\_name from product natural left outer join category;

PROD\_ID PROD\_NAME CAT\_NAME

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

1 cake food

5 shirt clothes

4 tshirt clothes

3 pencil stationary

2 pen stationary

SQL> select prod\_id,prod\_name,cat\_name from product natural full outer join category;

PROD\_ID PROD\_NAME CAT\_NAME

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

1 cake food

5 shirt clothes

4 tshirt clothes

3 pencil stationary

2 pen stationary

SQL> select \* from category natural join product;

CAT\_ID CAT\_NAME DESCRIPTION PROD\_ID PROD\_NAME PRICE

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

1 food foods 1 cake 300

3 stationary drawing 2 pen 100

3 stationary drawing 3 pencil 19

2 clothes summer clothes 4 tshirt 190

2 clothes summer clothes 5 shirt 130

SQL> select \* from product natural join category;

CAT\_ID PROD\_ID PROD\_NAME PRICE CAT\_NAME DESCRIPTION

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

1 1 cake 300 food foods

3 2 pen 100 stationary drawing

3 3 pencil 19 stationary drawing

2 4 tshirt 190 clothes summer clothes

2 5 shirt 130 clothes summer clothes

SQL> select \* from product natural right outer join category;

CAT\_ID PROD\_ID PROD\_NAME PRICE CAT\_NAME DESCRIPTION

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

1 1 cake 300 food foods

3 2 pen 100 stationary drawing

3 3 pencil 19 stationary drawing

2 4 tshirt 190 clothes summer clothes

2 5 shirt 130 clothes summer clothes

SQL> select \* from product natural left outer join category;

CAT\_ID PROD\_ID PROD\_NAME PRICE CAT\_NAME DESCRIPTION

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

1 1 cake 300 food foods

2 5 shirt 130 clothes summer clothes

2 4 tshirt 190 clothes summer clothes

3 3 pencil 19 stationary drawing

3 2 pen 100 stationary drawing

SQL> select \* from category natural left outer join product;

CAT\_ID CAT\_NAME DESCRIPTION PROD\_ID PROD\_NAME PRICE

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

1 food foods 1 cake 300

3 stationary drawing 2 pen 100

3 stationary drawing 3 pencil 19

2 clothes summer clothes 4 tshirt 190

2 clothes summer clothes 5 shirt 130

SQL> select \* from product natural full outer join category;

CAT\_ID PROD\_ID PROD\_NAME PRICE CAT\_NAME DESCRIPTION

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

1 1 cake 300 food foods

2 5 shirt 130 clothes summer clothes

2 4 tshirt 190 clothes summer clothes

3 3 pencil 19 stationary drawing

3 2 pen 100 stationary drawing

SQL> delete from product where prod\_name='cake';

1 row deleted.

SQL> select prod\_id,prod\_name,cat\_name from product natural join category;

PROD\_ID PROD\_NAME CAT\_NAME

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

2 pen stationary

3 pencil stationary

4 tshirt clothes

5 shirt clothes

SQL> select prod\_id,prod\_name,cat\_name from product inner join category on product.cat\_id=category.cat\_id;

PROD\_ID PROD\_NAME CAT\_NAME

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

2 pen stationary

3 pencil stationary

4 tshirt clothes

5 shirt clothes

SQL> select prod\_id,prod\_name,cat\_name from product natural right outer join category;

PROD\_ID PROD\_NAME CAT\_NAME

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

2 pen stationary

3 pencil stationary

4 tshirt clothes

5 shirt clothes

food

SQL> select prod\_id,prod\_name,cat\_name from product natural left outer join category;

PROD\_ID PROD\_NAME CAT\_NAME

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

5 shirt clothes

4 tshirt clothes

3 pencil stationary

2 pen stationary

SQL> select prod\_id,prod\_name,cat\_name from product natural full outer join category;

PROD\_ID PROD\_NAME CAT\_NAME

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

5 shirt clothes

4 tshirt clothes

3 pencil stationary

2 pen stationary

food

SQL> select prod\_id,prod\_name,cat\_name from category natural right outer join product;

PROD\_ID PROD\_NAME CAT\_NAME

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

5 shirt clothes

4 tshirt clothes

3 pencil stationary

2 pen stationary

SQL> select prod\_id,prod\_name,cat\_name from category natural left outer join product;

PROD\_ID PROD\_NAME CAT\_NAME

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

2 pen stationary

3 pencil stationary

4 tshirt clothes

5 shirt clothes

food

SQL> select prod\_id,prod\_name,cat\_name from category natural full outer join product;

PROD\_ID PROD\_NAME CAT\_NAME

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

2 pen stationary

3 pencil stationary

4 tshirt clothes

5 shirt clothes

food

SQL> select \* from product natural right outer join category;

CAT\_ID PROD\_ID PROD\_NAME PRICE CAT\_NAME DESCRIPTION

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

3 2 pen 100 stationary drawing

3 3 pencil 19 stationary drawing

2 4 tshirt 190 clothes summer clothes

2 5 shirt 130 clothes summer clothes

1 food foods

SQL> select \* from product natural left outer join category;

CAT\_ID PROD\_ID PROD\_NAME PRICE CAT\_NAME DESCRIPTION

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

2 5 shirt 130 clothes summer clothes

2 4 tshirt 190 clothes summer clothes

3 3 pencil 19 stationary drawing

3 2 pen 100 stationary drawing

SQL> select \* from product natural full outer join category;

CAT\_ID PROD\_ID PROD\_NAME PRICE CAT\_NAME DESCRIPTION

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

2 5 shirt 130 clothes summer clothes

2 4 tshirt 190 clothes summer clothes

3 3 pencil 19 stationary drawing

3 2 pen 100 stationary drawing

1 food foods

SQL> select \* from category;

CAT\_ID CAT\_NAME DESCRIPTION

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

1 food foods

2 clothes summer clothes

3 stationary drawing

SQL>