

```
SQL> create table student2(studentid varchar2(7)primary key,firstname varchar2(10),lastname  
varchar2(10));
```

Table created.

```
SQL> alter table student2 add(age number(3));
```

Table altered.

```
SQL> insert into student2 values(1,'akash','kumar',10);
```

1 row created.

```
SQL> insert into student2 values(2,'maxwell','raj',15);
```

1 row created.

```
SQL> insert into student2 values(3,'suresh','tawera',25);
```

1 row created.

```
SQL> insert into student2 values(4,'cool','suresh',35);
```

1 row created.

```
SQL> insert into student2 values(5,'mardona','vel',45);
```

1 row created.

```
SQL> insert into student2 values(6,'chris','alex',55);
```

1 row created.

SQL> select \* from student2;

	STUDENT	FIRSTNAME	LASTNAME	AGE
1	akash	kumar	10	
2	maxwell	raj	15	
3	suresh	tawera	25	
4	cool	suresh	35	
5	mardona	vel	45	
6	chris	alex	55	

6 rows selected.

SQL> create table department(studentid varchar2(7),deptname varchar2(15));

Table created.

SQL> insert into department values(1,'cs');

1 row created.

SQL> insert into department values(2,'maths');

1 row created.

SQL> insert into department values(3,'maths');

1 row created.

```
SQL> insert into department values(4,'civil');
```

1 row created.

```
SQL> insert into department values(5,'civil');
```

1 row created.

```
SQL> insert into department values(6,'cs');
```

1 row created.

```
SQL> select * from department;
```

STUDENT DEPTNAME

-----

1	cs
2	maths
3	maths
4	civil
5	civil
6	cs

6 rows selected.

```
SQL> alter table department add(constraint dfk foreign key(studentid) references  
student2(studentid));
```

Table altered.

SQL> desc department

Name	Null?	Type
-----		
STUDENTID		VARCHAR2(7)
DEPTNAME		VARCHAR2(15)

SQL> create table contact(studentid varchar2(7),email varchar2(15),mobile number(10));

Table created.

SQL> insert into contact values(1,'ram@gmail.com',8907856690);

1 row created.

SQL> delete from contact where studentid=1;

1 row deleted.

SQL> select\*from contact;

no rows selected

SQL> insert into contact values(1,'akash@gmail.com',8907856690);

1 row created.

SQL> insert into contact values(2,'max@gmail.com',9807856690);

1 row created.

```
SQL> insert into contact values(3,'tawe@gmail.com',7889856690);
```

1 row created.

```
SQL> insert into contact values(4,'cool@gmail.com',6870856690);
```

1 row created.

```
SQL> insert into contact values(5,'vel@gmail.com',9786970934);
```

1 row created.

```
SQL> insert into contact values(6,'alex@gmail.com',9088977689);
```

1 row created.

```
SQL> select * from contact;
```

	STUDENT EMAIL	MOBILE
1	akash@gmail.com	8907856690
2	max@gmail.com	9807856690
3	tawe@gmail.com	7889856690
4	cool@gmail.com	6870856690
5	vel@gmail.com	9786970934
6	alex@gmail.com	9088977689

6 rows selected.

```
SQL> alter table contact add(constraint conf foreign key(studentid) references student2(studentid));
```

Table altered.

```
SQL> create view vs11 as select s.studentid,s.firstname,d.deptname,c.email from student2
s,department d,contact c where s.studentid=d.studentid and s.studentid=c.studentid;
```

View created.

```
SQL> select * from vs11;
```

	STUDENT	FIRSTNAME	DEPTNAME	EMAIL
--	---------	-----------	----------	-------

-----

1	akash	cs	akash@gmail.com
2	maxwell	maths	max@gmail.com
3	suresh	maths	tawe@gmail.com
4	cool	civil	cool@gmail.com
5	mardona	civil	vel@gmail.com
6	chris	cs	alex@gmail.com

6 rows selected.

```
SQL> create view vs12 as select*from contact;
```

View created.

```
SQL> select * from vs12;
```

	STUDENT EMAIL	MOBILE
1	akash@gmail.com	8907856690
2	max@gmail.com	9807856690
3	tawe@gmail.com	7889856690
4	cool@gmail.com	6870856690
5	vel@gmail.com	9786970934
6	alex@gmail.com	9088977689

6 rows selected.

```
SQL> select * from contact;
```

	STUDENT EMAIL	MOBILE
1	akash@gmail.com	8907856690
2	max@gmail.com	9807856690
3	tawe@gmail.com	7889856690
4	cool@gmail.com	6870856690
5	vel@gmail.com	9786970934
6	alex@gmail.com	9088977689

6 rows selected.

```
SQL> update vs12 set mobile=7896078960 where studentid=1;
```

1 row updated.

SQL> select \* from contact;

	STUDENT EMAIL	MOBILE
1	akash@gmail.com	7896078960
2	max@gmail.com	9807856690
3	tawe@gmail.com	7889856690
4	cool@gmail.com	6870856690
5	vel@gmail.com	9786970934
6	alex@gmail.com	9088977689

6 rows selected.

SQL> select \* from vs12;

	STUDENT EMAIL	MOBILE
1	akash@gmail.com	7896078960
2	max@gmail.com	9807856690
3	tawe@gmail.com	7889856690
4	cool@gmail.com	6870856690
5	vel@gmail.com	9786970934
6	alex@gmail.com	9088977689

6 rows selected.

SQL> update contact set mobile=6789005678 where studentid=5;



1 row updated.

SQL> select \* from vs12;

	STUDENT EMAIL	MOBILE
1	akash@gmail.com	7896078960
2	max@gmail.com	9807856690
3	tawe@gmail.com	7889856690
4	cool@gmail.com	6870856690
5	vel@gmail.com	6789005678
6	alex@gmail.com	9088977689

6 rows selected.

SQL> select \* from contact;

	STUDENT EMAIL	MOBILE
1	akash@gmail.com	7896078960
2	max@gmail.com	9807856690
3	tawe@gmail.com	7889856690
4	cool@gmail.com	6870856690
5	vel@gmail.com	6789005678
6	alex@gmail.com	9088977689

6 rows selected.

SQL> select \* from contact where studentid=(select studentid from contact where mobile=7896078960);

STUDENT	EMAIL	MOBILE
---------	-------	--------

-----

1	akash@gmail.com	7896078960
---	-----------------	------------

SQL> select email from contact where studentid=(select studentid from contact where mobile=7896078960);

EMAIL

-----

akash@gmail.com

SQL> select email,mobile from contact where studentid=(select studentid from contact where mobile=7896078960);

STUDENT	EMAIL	MOBILE
---------	-------	--------

-----

1	akash@gmail.com	7896078960
---	-----------------	------------

SQL> select \* from contact where studentid in (select studentid from contact where studentid=1 or studentid=3);

STUDENT	EMAIL	MOBILE
---------	-------	--------

-----

1	akash@gmail.com	7896078960
---	-----------------	------------

3	tawe@gmail.com	7889856690
---	----------------	------------

select \* from contact where studentid = (select studentid from contact where studentid=1 or studentid=3)

\*

ERROR at line 1:

ORA-01427: single-row subquery returns more than one row