

```
rem //Create a view Schedule_15 that display the flight number, route, airport(origin, destination)
rem //departure (date, time), arrival (date, time) of a flight on 15 apr 2005. Label the view
rem //column as flight, route, from_airport, to_airport, ddate, dtime, adate, atime respectively
```

```
create view Schedule_15(flight,route,from_airport,to_airport,ddate,dtime,adate,atime)
AS (SELECT fl.flno,r.routeid,r.orig_airport,r.dest_airport,fl.departs,fl.dtime,fl.arrives,fl.atime
FROM fl_Schedule fl,routes r ,flights f
WHERE fl.flno=f.flightno AND f.rid=r.routeid AND fl.arrives='15-apr-2005');
```

```
rem //2. Define a view Airtype that display the number of aircrafts for each of its type. Label the
rem //column as craft_type, total.
```

```
create view Airtype(craft_type,total)
as select type,count(type)
from aircraft group by type;
```

```
rem //3.Create a view Losangeles_Route that contains Los Angeles in the route. Ensure that the
view
rem //always contain/allows only information about the Los Angeles route.
```

```
create view losangeles_route
as select * from routes
where orig_airport = 'Los Angeles' or dest_airport = 'Los Angeles';
```

```
rem //4. Create a view named Losangeles_Flight on Schedule_15 (as defined in 1) that display
flight,
rem //departure (date, time), arrival (date, time) of flight(s) from Los Angeles.
```

```
create view losangeles_flight
as select ddate,dtime,adate,atime from schedule_15
where from_airport='Los Angeles';
```

```
rem // no updation of primary keys on join conditions
insert into Schedule_15 values
('A099','R099','CHICAGO','NEW YORK','14-jul-2005',2100,'15-jul-2005',0100);
```

```

rem // updating the non primary keys
savepoint undo;
UPDATE SCHEDULE_15 SET adate='15-apr-2006' WHERE ddate='14-apr-2005';
select * from fl_schedule;
select * from schedule_15;
rem -- the below operation can be done as the foreign key property is satisfied
rollback undo;

```

```

-- delete operation is affected on base
savepoint mid;
DELETE FROM schedule_15 WHERE flight='AF-23';
select * from schedule_15;
-- 60 rows
select * from fl_schedule;
rollback;
-- 61 rows
select * from fl_schedule;

```

```

rem // a view with group functions cannot be updated
insert into Schedule_15 VALUES('airc',20);

```

```

-- data manipulation is not legal in this view as group function is used
update airtype set craft_type='boe' where total=6;

```

```

-- data manipulation is not legal in this view as group function is used
DELETE FROM airtype WHERE total=6;

```

```

REM: --***** OPEARTIONS on LOSANGELES_ROUTE VIEW *****

```

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REM: --a simple query including the primary key can be updated

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```

savepoint mid;
INSERT INTO Losangeles_route VALUES('LSN001','Los Angeles','new york',2689);
select * from routes;
rollback;

```

```

-- since flights table refers to the base table , if a child record is found
-- it cannot be deleted

```

```

DELETE FROM losangeles_route WHERE dest_airport='Los Angeles';

```

```

REM: --***** OPEARTIONS on LOSANGELES_flight VIEW *****

```

REM: --no primary key and join conditions are present .. thus cannot be updated
INSERT INTO Losangeles_flight VALUES('14-apr-2005',2100,'15-apr-2005',0100);

-- update is reflected in base and view tables

savepoint mid;

UPDATE losangeles_flight SET adate='15-apr-2006' WHERE ddate='13-apr-2005';

select * from fl_Schedule;

rollback;

-- delete operation is also allowed as this table does not act as a foreign key

savepoint mid;

select * from losangeles_flight;

DELETE FROM losangeles_flight WHERE atime=430;

-- 60 rows

select * from fl_schedule;

rollback;

-- 61 rows

select * from fl_schedule;