

```

1> use c670aa
1> OSUSP_ClearAirline
(return status = 0)
1>
2> drop table airlines
Msg 3701, Level 11, State 1:
Server 'dev', Line 2:
Cannot drop the table 'airlines', because it doesn't exist in the system catalogs.
1>
2> OSUSP_CopyAirline
(return status = 0)
1>
2>
3> /* 2. (A) ----- */
4> /* 2. (A) (i) Big Cartesian Product */
5> select li.flight_number, li.leg_number, a.airplane_type
6> from leg_instance li, airplane a, flight_leg fl
7> where li.airplane_id = a.airplane_id
8> and li.flight_number = fl.flight_number
9> and li.leg_number = fl.leg_number
10> and li.date = '10/9/89'
11> and fl.departure_airport_code = 'ATL'
flight_number leg_number airplane_type
-----
1607          2 M80
787           2 757
12            1 L15
1500          1 M80
1112          2 76S
1218          2 M80

(6 rows affected)
1>
2> /* 2. (A) (ii) Nested Select - does NOT work */
3> select li.flight_number, li.leg_number, a.airplane_type
4> from leg_instance li, airplane a
5> where li.airplane_id = a.airplane_id
6> and li.date = '10/9/89'
7> and (li.flight_number, li.leg_number) in
8> select fl.flight_number, fl.leg_number
9> from flight_leg fl
10> where
11> fl.departure_airport_code = 'ATL')
Msg 102, Level 15, State 1:
Server 'dev', Line 7:
Incorrect syntax near ','.
Msg 102, Level 15, State 1:
Server 'dev', Line 11:
Incorrect syntax near ')'.
1>
2>
3> /* 2. (A) (ii) Nested Select - a "hacked" version that DOES work */
4> select li.flight_number, li.leg_number, a.airplane_type
5> from leg_instance li, airplane a
6> where li.airplane_id = a.airplane_id
7> and li.date = '10/9/89'
8> and li.flight_number in
9> (select fl.flight_number
10> from flight_leg fl
11> where li.leg_number = fl.leg_number
12> and fl.departure_airport_code = 'ATL')
flight_number leg_number airplane_type
-----
1500          1 M80
12            1 L15
1607          2 M80
787           2 757
1218          2 M80

```

1112 2 76S

(6 rows affected)

```

1>
2> /* 2. (A) (iii) Exists */
3> select li.flight_number, li.leg_number, a.airplane_type
4> from leg_instance li, airplane a
5> where li.airplane_id = a.airplane_id
6> and li.date = '10/9/89',
7> and exists
8> (select *
9> from flight_leg fl
10> where li.flight_number = fl.flight_number
11> and li.leg_number = fl.leg_number
12> and fl.departure_airport_code = 'ATL')
flight_number leg_number airplane_type
-----
1500 1 M80
12 1 L15
1607 2 M80
787 2 757
1218 2 M80
1112 2 76S

```

(6 rows affected)

```

1>
2> /* 2. (A) (iv) Join */
3> select li.flight_number, li.leg_number, a.airplane_type
4> from (leg_instance li join flight_leg fl
5> on li.flight_number = fl.flight_number
6> and li.leg_number = fl.leg_number)
7> join airplane a
8> on li.airplane_id = a.airplane_id
9> where li.date = '10/9/89',
10> and fl.departure_airport_code = 'ATL',
flight_number leg_number airplane_type
-----
1607 2 M80
787 2 757
12 1 L15
1500 1 M80
1112 2 76S
1218 2 M80

```

(6 rows affected)

```

1>
2> /* 2. (B) ----- */
3> select li.date, sum(total_number_of_seats)
4> from leg_instance li, flight_leg fl, airplane a
5> where li.flight_number = fl.flight_number
6> and li.leg_number = fl.leg_number
7> and li.airplane_id = a.airplane_id
8> and fl.departure_airport_code = 'ATL',
9> and fl.arrival_airport_code = 'CMH',
10> and li.date >= '10/9/89',
11> and li.date <= '10/10/89',
12> group by li.date
date
-----
Oct 9 1989 12:00AM 142
Oct 10 1989 12:00AM 142

```

(2 rows affected)

```

1>
2> /* 2. (C) */
3> select li.flight_number, li.leg_number, f.airline,
4> fl.scheduled_departure_time, fl.scheduled_arrival_time, ap.name
5> from leg_instance li, flight_leg fl, flight f, airport ap

```

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6> where li_flight_number = fl_flight_number
7> and li_leg_number = fl_leg_number
8> and li_flight_number = f.number
9> and fl_departure_airport_code = ap.airport_code
10> and li.date = '10/10/89'
flight_number leg_number airline scheduled_departure_time scheduled_arrival_time name
-----
198 1 TWA 932 1342
1607 1 TWA 1250 1416 Port Columbus
787 1 US 1240 1427 National
11 1 UA 1100 1455
1218 1 UA 1425 1552
1112 1 UA 1420 1610
157 1 TWA 1538 1655 Hartsfield
197 1 TWA 1552 1658 Intercontinental
1500 1 TWA 1650 1815 Hartsfield
54 1 US 1710 3135
12 1 US 1720 3225 Hartsfield
1607 2 TWA 1531 1650 Hartsfield
787 2 US 1519 1705 Hartsfield
1218 2 UA 1707 1900 Hartsfield
1112 2 UA 1702 1915 Hartsfield
157 2 TWA 1755 2028

(16 rows affected)
1>
2> /* 2. (D) */
3> select distinct leg1_flight_number, aplarr.city
4> from flight_leg leg1, flight_leg leg2, airport apldep,
5> airport aplarr, airport apl2arr
6> where leg1_flight_number = leg2_flight_number
7> and leg2_leg_number = leg1_leg_number +1
8>
9> and leg1_departure_airport_code = apldep.airport_code
10> and leg1_arrival_airport_code = aplarr.airport_code
11> and leg2_arrival_airport_code = apl2arr.airport_code
12>
13> and apldep.city = 'Washington'
14> and apl2arr.city = 'Miami'
flight_number city
-----
787 Atlanta

(1 row affected)
1>
2>
3> /* 2 (E) */
4> insert into can_land (airplane_type_name, airport_code)
5> values('M11', 'ATL')
(1 row affected)
1>
2>
3> /* 2. (F) */
4> select airplane_code
5> from airport ap
6> where not exists
7> (select *
8> from airplane_type ap_t
9> where not exists
10> (select *
11> from can_land cl
12> where ap.airport_code = cl.airport_code
13> and cl.airplane_type_name = ap.t.type_name))
airplane_code
-----
ATL

(1 row affected)

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```

1>
2> /* 3. (A) */
1> delete from leg_instance
2> where
3>   date =
4>   (select min(date)
      from leg_instance)
(13 rows affected)
1> select
2> from leg_instance
flight_number leg_number date
-----

```

flight_number	leg_number	date	no_of_available_seats	airplane_id	departure_time	arrival_time
198	1	Oct 10 1989 12:00AM	294	call138	932	1342
1607	1	Oct 10 1989 12:00AM	142	apr800	1250	1416
787	1	Oct 10 1989 12:00AM	187	boe911	1240	1427
11	1	Oct 10 1989 12:00AM	217	egl001	1100	1455
1218	1	Oct 10 1989 12:00AM	142	apr780	1425	1552
1112	1	Oct 10 1989 12:00AM	254	bob850	1420	1610
157	1	Oct 10 1989 12:00AM	302	crsh12	1538	1655
197	1	Oct 10 1989 12:00AM	294	abc123	1552	1658
1500	1	Oct 10 1989 12:00AM	142	mar800	1650	1815
54	1	Oct 10 1989 12:00AM	302	madfli	1710	3135
12	1	Oct 10 1989 12:00AM	217	egl300	520	3225
1607	2	Oct 10 1989 12:00AM	142	apr800	1531	1650
787	2	Oct 10 1989 12:00AM	187	boe911	1519	1705
1218	2	Oct 10 1989 12:00AM	142	apr780	1707	1900
1112	2	Oct 10 1989 12:00AM	254	bob850	1702	1915
157	2	Oct 10 1989 12:00AM	302	crsh12	1755	2028
198	1	Oct 11 1989 12:00AM	294	abc123	932	1342
1607	1	Oct 11 1989 12:00AM	142	mar800	1250	1416
787	1	Oct 11 1989 12:00AM	187	boe113	1240	1427
11	1	Oct 11 1989 12:00AM	217	egl300	1100	1455
1218	1	Oct 11 1989 12:00AM	142	mar560	1425	1552
1112	1	Oct 11 1989 12:00AM	254	boa450	1420	1610
157	1	Oct 11 1989 12:00AM	302	madfli	1538	1655
197	1	Oct 11 1989 12:00AM	294	call138	1552	1658
1500	1	Oct 11 1989 12:00AM	142	apr800	1650	1815
54	1	Oct 11 1989 12:00AM	302	call138	1710	3135
12	1	Oct 11 1989 12:00AM	217	egl001	520	3225
1607	2	Oct 11 1989 12:00AM	142	mar800	1531	1650
787	2	Oct 11 1989 12:00AM	187	boe113	1519	1705
1218	2	Oct 11 1989 12:00AM	142	mar560	1707	1900
1112	2	Oct 11 1989 12:00AM	254	boa450	1702	1915
157	2	Oct 11 1989 12:00AM	302	madfli	1755	2028

(32 rows affected)

```

1>
2> /* 3. (B) */
3> update flight_leg
4> set scheduled_departure_time = 1530
5> where flight_number = 787
6> and leg_number = 2
(1 row affected)
1>

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```

2> select * from flight_leg
3> where flight_number = 787
4> and leg_number = 2
flight_number leg_number departure_time arrival_airport_code scheduled_arrival_time
-----

```

787 2 ATL 1530 MIA 1705

(1 row affected)

```

1>
2> /* 4. */
3> create table airlines
4> (airline varchar(3),
5> airline_name varchar(30)
6> )
1>

```

```
2> insert into airlines(airline, airline_name)
3> values('US', 'US Airways')
(1 row affected)
1>
2> insert into airlines(airline, airline_name)
3> values('TWA', 'Trans World Airline')
(1 row affected)
1>
2> select * from airlines
airline airline_name
-----
US      US Airways
TWA     Trans World Airline
(2 rows affected)
```