

COMP23111

Academic year: 2018-19

Exercise number: EX05

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```

SQL> -- sends everything to <EX05-10406141.log>
SQL> set lin 120
SQL> col title for A20
SQL> col createdBy for A20
SQL> col is_distributed_as for A20
SQL> col albumTitle for A20
SQL> col songTitle for A20
SQL>
SQL> -- [body]
SQL>
SQL> --(1)
SQL> select * from contractinfo;

```

HASCONTRACT	DATE_FROM	DATE_TO	DURATION
Goldfrat	10-OCT-10	09-OCT-14	0
Simon Palm	20-AUG-05	19-AUG-07	0
Simon Palm	20-SEP-12	19-AUG-14	0
Flut	10-AUG-09	09-SEP-14	0
John Cliff	10-MAR-06	10-APR-12	0
Jay Blancard	01-JAN-04	20-JUN-14	0
Palmer John	12-FEB-06	01-JUN-08	0
Zero7	31-DEC-11	26-FEB-16	0
JZ	24-MAR-05	30-DEC-07	0
Scandal	22-OCT-12	19-NOV-16	0
JK Row1	19-APR-03	06-JAN-09	0

HASCONTRACT	DATE_FROM	DATE_TO	DURATION
PJ Blox	21-JUN-08	16-JUL-13	0

12 rows selected.

```

SQL> create or replace trigger setDuration
  2 before insert or update on contractinfo
  3 for each row
  4 begin
  5     :new.duration := :new.date_to - :new.date_from;
  6 end;
  7 /

```

Trigger created.

```

SQL> insert into contractinfo(hascontract, date_from, date_to, duration)
  2 values('JZ', '21-JUN-13', '16-JUL-14', null);

```

1 row created.

```

SQL> select * from contractinfo;

```

HASCONTRACT	DATE_FROM	DATE_TO	DURATION
Goldfrat	10-OCT-10	09-OCT-14	0
Simon Palm	20-AUG-05	19-AUG-07	0
Simon Palm	20-SEP-12	19-AUG-14	0
Flut	10-AUG-09	09-SEP-14	0
John Cliff	10-MAR-06	10-APR-12	0
Jay Blancard	01-JAN-04	20-JUN-14	0
Palmer John	12-FEB-06	01-JUN-08	0
Zero7	31-DEC-11	26-FEB-16	0
JZ	24-MAR-05	30-DEC-07	0
Scandal	22-OCT-12	19-NOV-16	0
JK Row1	19-APR-03	06-JAN-09	0

HASCONTRACT	DATE_FROM	DATE_TO	DURATION
PJ Blox	21-JUN-08	16-JUL-13	0
JZ	21-JUN-13	16-JUL-14	390

13 rows selected.

```
SQL> update contractinfo
2 set date_to = '16-JUL-15'
3 where date_from = '21-JUN-13';
```

1 row updated.

```
SQL> select * from contractinfo;
```

HASCONTRACT	DATE_FROM	DATE_TO	DURATION
Goldfrat	10-OCT-10	09-OCT-14	0
Simon Palm	20-AUG-05	19-AUG-07	0
Simon Palm	20-SEP-12	19-AUG-14	0
Flut	10-AUG-09	09-SEP-14	0
John Cliff	10-MAR-06	10-APR-12	0
Jay Blancard	01-JAN-04	20-JUN-14	0
Palmer John	12-FEB-06	01-JUN-08	0
Zero7	31-DEC-11	26-FEB-16	0
JZ	24-MAR-05	30-DEC-07	0
Scandal	22-OCT-12	19-NOV-16	0
JK Row1	19-APR-03	06-JAN-09	0

HASCONTRACT	DATE_FROM	DATE_TO	DURATION
PJ Blox	21-JUN-08	16-JUL-13	0
JZ	21-JUN-13	16-JUL-15	755

13 rows selected.

```
SQL>
SQL> --(2)
SQL> create or replace procedure checkTemporal
2 (name in contractinfo.hascontract%type, dateFrom in date, dateTo in date)
3 is
4 cnt number;
5 begin
6 if dateFrom > dateTo then
7 raise_application_error(-20001, 'date_from should be earlier than
date_to');
8 end if;
9 select count(hascontract) into cnt from
10 (select * from contractinfo where hascontract = name
11 and ((dateFrom between date_from and date_to)
12 or (dateTo between date_from and date_to)));
13 if cnt > 0 then
14 raise_application_error(-20002, 'conflict with prior
contracts');
15 end if;
16 end;
17 /
```

Procedure created.

```
SQL> -- dateTo prior to dateFrom
SQL> execute checkTemporal('JZ', '11-OCT-16', '20-OCT-14');
BEGIN checkTemporal('JZ', '11-OCT-16', '20-OCT-14'); END;
```

```

*
ERROR at line 1:
ORA-20001: date_from should be earlier than date_to
ORA-06512: at "P87934WL.CHECKTEMPORAL", line 7
ORA-06512: at line 1

```

```

SQL> -- new contract's valid date lies between old one's valid date
SQL> execute checkTemporal('JZ', '1-JAN-05', '13-OCT-06');
BEGIN checkTemporal('JZ', '1-JAN-05', '13-OCT-06'); END;

```

```

*
ERROR at line 1:
ORA-20002: conflict with prior contracts
ORA-06512: at "P87934WL.CHECKTEMPORAL", line 14
ORA-06512: at line 1

```

```

SQL> -- working just fine
SQL> execute checkTemporal('JZ', '13-OCT-18', '10-OCT-20');

```

PL/SQL procedure successfully completed.

```

SQL>
SQL> --(3)
SQL> create or replace view AlbumDistribution
2  (
3      album,
4      title,
5      createdby,
6      is_distributed_as
7  )
8  as(
9      select album_id, title, createdBy,
10         case
11             when album_id like '%t' then 't'
12             when album_id like '%c' then 'c'
13             when album_id like '%v' then 'v'
14         end
15         from (select * from album)
16 );

```

View created.

```

SQL> select * from AlbumDistribution;

```

ALBUM	TITLE	CREATEDBY	IS_DISTRIBUTED_AS
1c	20 People in a Field	Goldfrat	c
1v	20 People in a Field	Goldfrat	v
1t	20 People in a Field	Goldfrat	t
2c	My Feet	Flut	c
2v	My Feet	Flut	v
3c	Debut	Jay Blancard	c

6 rows selected.

```

SQL>
SQL> --(4)
SQL> set serveroutput on;
SQL> create or replace procedure printSequence
2  (albumType in varchar, albumTitle in album.title%type)
3  is
4  albumName album.title%type;

```

```

5  fetchedAlbumTitle album.title%type;
6  fetchedSongTitle finishedtrack.released_title%type;
7  cursor cursor1(albumName in album.title%type) is
8      select album.title as albumTitle,finishedtrack.released_title as
songTitle
9          from hastrack
10         join finishedtrack on hastrack.originatesfrom =
finishedtrack.originatesFrom
11         join album on hastrack.album_id = album.album_id
12         where album.title = albumName;
13
14  begin
15  -- Get the title of the album
16      select title into albumName from AlbumDistribution
17      where is_distributed_as = albumType and title like '%'||
albumTitle||'%';
18      open cursor1(albumName);
19      loop
20          fetch cursor1 into fetchedAlbumTitle, fetchedSongTitle;
21          exit when cursor1%NOTFOUND;
22          dbms_output.put_line('sequence, ' || fetchedSongTitle || ' > ' ||
fetchedAlbumTitle);
23      end loop;
24      close cursor1;
25  end;
26  /

```

Procedure created.

```

SQL>
SQL> -- valid
SQL> select album.title as albumTitle, finishedtrack.released_title as songTitle
2  from hastrack
3  join finishedtrack on hastrack.originatesfrom =
finishedtrack.originatesFrom
4  join album on hastrack.album_id = album.album_id
5  where album.title = 'Debut';

```

ALBUMTITLE	SONGTITLE
Debut	Power
Debut	What is your name?
Debut	Mix
Debut	Manic
Debut	Streets
Debut	Road
Debut	Forest
Debut	Deep
Debut	Danger
Debut	Danger Remix

10 rows selected.

```

SQL> execute show_sequence('c', 'eb');
sequence, Power > Debut
sequence, What is your name? > Debut
sequence, Mix > Debut
sequence, Manic > Debut
sequence, Streets > Debut
sequence, Road > Debut
sequence, Forest > Debut
sequence, Deep > Debut
sequence, Danger > Debut
sequence, Danger Remix > Debut

```

PL/SQL procedure successfully completed.

SQL>

SQL>

SQL> --invalid

SQL> execute show_sequence('c', 'invalidTest');

BEGIN show_sequence('c', 'invalidTest'); END;

*

ERROR at line 1:

ORA-01403: no data found

ORA-06512: at "P87934WL.SHOW_SEQUENCE", line 17

ORA-06512: at line 1

SQL>

SQL> -- [close]

SQL> SP00L OFF