

Oracle Database 12C

We have a table 'authorisations' with records such as Leave , Duty, Overtime etc with specified periods (from-to).

The overtime and duty periods can be overlapped with each other . all other overlapped entries are to be listed.

Eg: If an employee is given Overtime during 05/03/2019 16:00 till 05/03/2019 20:00, he is permitted to avail Official duty during the same period. But he should not avail a leave anywhere between that time. if he does, it has to be listed in the error report as 'Overlapped Data Entries'

Sample Data with create statements and the Query

-EMPMST

```
create table empmst as select 100 empid, 'C1001' badgeno,'Ganesh' empname from dual;
```

--AUTHORISATIONS

```
create table authorisations as
```

```
select 100 empid,'05/03/2019 16:00' fromdatetime,'05/03/2019 20:00' todatetime,'OT'
authtype,'Overtime' authdescription from dual union all
```

```
select 100 empid,'05/03/2019 16:00' fromdatetime,'05/03/2019 20:00' todatetime,'DT'
authtype,'Official Duty' authdescription from dual union all
```

```
select 100 empid,'05/03/2019 16:00' fromdatetime,'06/03/2019 00:00' todatetime,'LV'
authtype,'Leave' authdescription from dual ;
```

```
with dat as
```

```
(
```

```
select
```

```
    a.empid,
```

```
    a.badgeno,
```

```
    b.fromdatetime ,
```

```
    b.todatetime ,
```

```
    b.authtype ,
```

```
    rownum as pkey
```

```
from
```

```
    empmst a,
```

```
    authorisations b
```

```

        where
            a.empid=b.empid
    )
, rep as
(
    select
        a.badgeno,
        a.fromdatetime ,
        a.todatetime ,
        a.authtype,
        b.fromdatetime fromdatetime1,
        b.todatetime todatetime1,
        b.authtype authtype1
    from
        dat a ,
        dat b
    where
        a.pkey<>b.pkey and
        a.empid=b.empid and
        a.fromdatetime<b.todatetime and
        a.todatetime>b.fromdatetime
    )
, res as
(
    select * from rep
    where
        (authtype='DT' and authtype1='OT') or
        (authtype='OT' and authtype1='DT')
    )

```

```

select BADGENO,fromdatetime,todatetime,authtype,fromdatetime1,todatetime1,authtype1
from rep minus

```

```
select BADGENO,fromdatetime,todatetime,authtype,fromdatetime1,todatetime1,authtype1
from res;
```

Output in Oracle Database 11g (Expected Result)

C1001	05/03/2019 16:00	05/03/2019 20:00	Official Duty	05/03/2019 16:00	06/03/2019 0:00	Leave
C1001	05/03/2019 16:00	05/03/2019 20:00	Overtime	05/03/2019 16:00	06/03/2019 0:00	Leave
C1001	05/03/2019 16:00	06/03/2019 0:00	Leave	05/03/2019 16:00	05/03/2019 20:00	Official Duty
C1001	05/03/2019 16:00	06/03/2019 0:00	Leave	05/03/2019 16:00	05/03/2019 20:00	Overtime

Output in Oracle Database 12c Release 12.2.0.1.0 - 64bit (Wrong Result. Last two records should not be shown)

C1001	05/03/2019 16:00	05/03/2019 20:00	Official Duty	05/03/2019 16:00	06/03/2019 0:00	Leave
C1001	05/03/2019 16:00	05/03/2019 20:00	Overtime	05/03/2019 16:00	06/03/2019 0:00	Leave
C1001	05/03/2019 16:00	06/03/2019 0:00	Leave	05/03/2019 16:00	05/03/2019 20:00	Official Duty
C1001	05/03/2019 16:00	06/03/2019 0:00	Leave	05/03/2019 16:00	05/03/2019 20:00	Overtime
C1001	05/03/2019 16:00	05/03/2019 20:00	Overtime	05/03/2019 16:00	05/03/2019 20:00	Official Duty
C1001	05/03/2019 16:00	05/03/2019 20:00	Official Duty	05/03/2019 16:00	05/03/2019 20:00	Overtime