

## Function

### 1) To find screen id for a movie show in a particular theatre.

create function f1(thid in shows.th\_id%type,sdt in shows.sdatetime%type,mov in shows.mov\_name%type) return number

is

sid number(2);

begin

select screen\_id into sid from shows where sdatetime=sdt and th\_id=thid and mov\_name=mov;

return sid;

end;

/

--calling program

declare

m shows.mov\_name%type;

th shows.th\_id%type;

sdt1 shows.sdatetime%type;

scid shows.screen\_id%type;

begin

m:='Tu Jhuthi Main Makkar';

th:=100;

sdt1:=to\_date('20-Apr-2023 12:00:00 pm','dd-mon-yyyy hh:mi:ss pm');

scid:=f1(th,sdt1,m);

dbms\_output.put\_line(scid);

end;

/

## **Output:**

10

# **Procedure**

**1) Procedure to find movie show date and time for a particular movie at a particular theatre location.**

```
create procedure p1(thid in shows.th_id%type,mov in shows.mov_name%type)
is
    sdatetime shows.sdatetime%type;
    cursor c1 is select to_char(sdatetime,'dd-mon-yyyy hh:mi:ss am') as sdatetime from shows
where mov_name=mov and th_id=thid;
    r1 c1%rowtype;
    type t1 is table of r1%type;
    l1 t1;
begin
    open c1;
    fetch c1 bulk collect into l1;
    close c1;
    dbms_output.put_line('Show date and time for movie '||mov||' are');
    for i in 1..l1.count
        loop
            dbms_output.put_line(l1(i).sdatetime);
        end loop;
end;
/

declare
    m shows.mov_name%type;
    th shows.th_id%type;
    sdt1 shows.sdatetime%type;
begin
    m:='Tu Jhuthi Main Makkar';
```

```

        th:=100;

        p1(th,m);

end;

/

```

## **Output:**

Show date and time for movie Tu Jhuthi Main Makkar are  
 20-apr-2023 12:00:00 pm  
 21-apr-2023 09:30:00 pm  
 20-apr-2023 05:00:00 pm

## **2) Procedure for showing seat details for a particular movie show on a given selected date and time.**

--for silver seats

```

create procedure p2(thid in silver_seat.th_id%type,sdt in silver_seat.sdatetime%type,sid in
silver_seat.screen_id%type)

```

is

```

cursor c1 is select * from silver_seat where sdatetime=sdt and th_id=thid and screen_id=sid;

```

```

        r1 c1%rowtype;

```

```

        type t1 is table of r1%type;

```

```

        l1 t1;

```

```

        p silver_price.price%type;

```

```

begin

```

```

        select price into p from silver_price where sdatetime=sdt and th_id=thid and
screen_id=sid;

```

```

        open c1;

```

```

        fetch c1 bulk collect into l1;

```

```

        close c1;

```

```

        dbms_output.put_line('Screen Id: ' || sid);

```

```

        dbms_output.put_line('Silver Seats details');

        dbms_output.put_line('Price: ' || p);

    for i in 1..l1.count
        loop
            dbms_output.put_line('Seat number: ' || l1(i).silver_seatnum || ' Screen: ' || l1(i).screen_id || ' Theatre: ' || l1(i).th_id || ' Status: ' || l1(i).avail);
        end loop;
    end;

/

--for gold seats
create procedure p3(thid in gold_seat.th_id%type,sdt in gold_seat.sdatetime%type,sid in gold_seat.screen_id%type)
is
    cursor c1 is select * from gold_seat where sdatetime=sdt and th_id=thid and screen_id=sid;
    r1 c1%rowtype;
    type t1 is table of r1%type;
    l1 t1;
    p gold_price.price%type;
begin
    select price into p from gold_price where sdatetime=sdt and th_id=thid and screen_id=sid;
    open c1;
    fetch c1 bulk collect into l1;
    close c1;
    dbms_output.put_line('Screen Id: ' || sid);
    dbms_output.put_line('Gold Seats details');
    dbms_output.put_line('Price: ' || p);

    for i in 1..l1.count
        loop

```

```
        dbms_output.put_line('Seat number: ' || l1(i).gold_seatnum || ' Screen: ' || l1(i).screen_id || ' Theatre: ' || l1(i).th_id || ' Status: ' || l1(i).avail);
```

```
    end loop;
```

```
end;
```

```
/
```

--calling program

```
declare
```

```
    m shows.mov_name%type;
```

```
    th shows.th_id%type;
```

```
    sdt1 shows.sdatetime%type;
```

```
    scid shows.screen_id%type;
```

```
begin
```

```
    m:='Tu Jhuthi Main Makkar';
```

```
    th:=100;
```

```
    sdt1:=to_date('20-Apr-2023 12:00:00 pm','dd-mon-yyyy hh:mi:ss pm');
```

```
    scid:=f1(th,sdt1,m);
```

```
    p2(th,sdt1,scid);
```

```
    dbms_output.put_line('-----');
```

```
    p3(th,sdt1,scid);
```

```
end;
```

```
/
```

## **Output:**

Screen Id: 10

Silver Seats details

Price: 50

Seat number: A1 Screen: 10 Theatre: 100 Status: 1

Seat number: A2 Screen: 10 Theatre: 100 Status: 1

Seat number: A3 Screen: 10 Theatre: 100 Status: 1

Seat number: A4 Screen: 10 Theatre: 100 Status: 1

Seat number: A5 Screen: 10 Theatre: 100 Status: 1

Seat number: A6 Screen: 10 Theatre: 100 Status: 1

Seat number: A7 Screen: 10 Theatre: 100 Status: 1

-----

Screen Id: 10

Gold Seats details

Price: 100

Seat number: B1 Screen: 10 Theatre: 100 Status: 1

Seat number: B2 Screen: 10 Theatre: 100 Status: 1

Seat number: B3 Screen: 10 Theatre: 100 Status: 1

Seat number: B4 Screen: 10 Theatre: 100 Status: 1

Seat number: B5 Screen: 10 Theatre: 100 Status: 1

Seat number: B6 Screen: 10 Theatre: 100 Status: 1

Seat number: B7 Screen: 10 Theatre: 100 Status: 1

Seat number: B8 Screen: 10 Theatre: 100 Status: 1

## Triggers

- 1) **Trigger to update seat availability whenever it is booked for a show at a given date and time for a particular theatre.**

--for silver ticket

create or replace trigger t1

after insert on silverticket for each row

begin

update silver\_seat set avail=0 where sdatetime=:new.sdatetime and screen\_id=:new.screen\_id and th\_id=:new.th\_id and silver\_seatnum=:new.silver\_seatnum;

end;

/

--for gold ticket

create or replace trigger t2

after insert on goldticket for each row

begin

update gold\_seat set avail=0 where sdatetime=:new.sdatetime and screen\_id=:new.screen\_id and th\_id=:new.th\_id and gold\_seatnum=:new.gold\_seatnum;

end;

/

--\*\*\*\*\*

insert into silverticket values(1,50,sysdate,'online',to\_date('20-Apr-2023 12:00:00 pm','dd-mon-yyyy hh:mi:ss pm'), 10, 100,'A1',2);

select \* from silverticket;

select silver\_seatnum,screen\_id,th\_id,to\_char(sdatetime,'dd-mon-yyyy hh:mi:ss pm') as sdatetime,avail from silver\_seat where screen\_id=10;

insert into goldticket values(2,50,sysdate,'online',to\_date('20-Apr-2023 12:00:00 pm','dd-mon-yyyy hh:mi:ss pm'), 10, 100,'B1',2);

select \* from goldticket;

select gold\_seatnum,screen\_id,th\_id,to\_char(sdatetime,'dd-mon-yyyy hh:mi:ss pm') as  
sdatetime,avail from gold\_seat where screen\_id=10;

## Output:

1 row(s) inserted

TICKET_ID	NPRICE	BK_DT_TIME	BK_TYPE	SDATETIME	SCREEN_ID	TH_ID	SILVER_SEATNUM	CID
1	50	19-APR-23	online	20-APR-23	10	100	A1	2

SILVER_SEATNUM	SCREEN_ID	TH_ID	SDATETIME	AVAIL
A1	10	100	20-04-2023 12:00 pm	0
A2	10	100	20-04-2023 12:00 pm	1
A3	10	100	20-04-2023 12:00 pm	1
A4	10	100	20-04-2023 12:00 pm	1
A5	10	100	20-04-2023 12:00 pm	1
A6	10	100	20-04-2023 12:00 pm	1
A7	10	100	20-04-2023 12:00 pm	1

1 row(s) inserted

TICKET_ID	NPRICE	BK_DT_TIME	BK_TYPE	SDATETIME	SCREEN_ID	TH_ID	GOLD_SEATNUM	CID
2	100	19-APR-23	online	20-APR-23	10	100	B1	2

GOLD_SEATNUM	SCREEN_ID	TH_ID	SDATETIME	AVAIL
B1	10	100	20-04-2023 12:00 pm	0
B2	10	100	20-04-2023 12:00 pm	1
B3	10	100	20-04-2023 12:00 pm	1
B4	10	100	20-04-2023 12:00 pm	1
B5	10	100	20-04-2023 12:00 pm	1
B6	10	100	20-04-2023 12:00 pm	1
B7	10	100	20-04-2023 12:00 pm	1



**2) Trigger to insert allover shows details in box office and website table whenever it is inserted in shows table.**

create or replace trigger t3 after insert or update on shows for each row

begin

insert into box\_office values(:new.mov\_name,:new.sdatetime,:new.screen\_id,:new.th\_id);

end;

/

create or replace trigger t4 after insert or update on shows for each row

begin

insert into website values(:new.mov\_name,:new.sdatetime,:new.screen\_id,:new.th\_id);

end;

/

--\*\*\*\*\*

insert into shows values('Tu Jhuthi Main Makkar', to\_date('21-Apr-2023 9:00:00 am','dd-mon-yyyy hh:mi:ss pm'), '2.5 hrs', 10, 101);

select mov\_name,to\_char(sdatetime,'dd-mon-yyyy hh:mi:ss pm') as  
sdatetime,runtime,screen\_id,th\_id from shows;

select mov\_name,to\_char(sdatetime,'dd-mon-yyyy hh:mi:ss pm') as sdatetime,screen\_id,th\_id from  
box\_office;

select mov\_name,to\_char(sdatetime,'dd-mon-yyyy hh:mi:ss pm') as sdatetime,screen\_id,th\_id from  
website;

## **Output:**

1 row(s) inserted.

MOV_NAME	SDATETIME	RUNTIME	SCREEN_ID	TH_ID
Tu Jhuthi Main Makkar	20-04-2023 12:00 pm	2.5 hrs	10	100

MOV_NAME	SDATETIME	SCREEN_ID	TH_ID
Tu Jhuthi Main Makkar	20-04-2023 12:00 pm	10	100

MOV_NAME	SDATETIME	SCREEN_ID	TH_ID
Tu Jhuthi Main Makkar	20-04-2023 12:00 pm	10	100

### 3) Trigger to check if same seatnum is not being added in silverticket and goldticket table for already booked seat number.

#### --for silver seats

create trigger t5 before insert on silverticket for each row

declare

t\_count number:=0;

begin

select count(1) into t\_count from silverticket where silver\_seatnum=:new.silver\_seatnum and  
sdatetime=:new.sdatetime and th\_id=:new.th\_id and screen\_id=:new.screen\_id;

if t\_count>0

then

raise\_application\_error(-20202,'Silver seatnum '||:new.silver\_seatnum||' already booked');

end if;

end;

/

#### --for gold seats

create trigger t6 before insert on goldticket for each row

declare

```

g_count number:=0;

begin

select count(1) into g_count from goldticket where gold_seatnum=:new.gold_seatnum and
sdatetime=:new.sdatetime and th_id=:new.th_id and screen_id=:new.screen_id;

if g_count>0

then

raise_application_error(-20202,'Gold seatnum '||:new.gold_seatnum||' already booked');

end if;

end;

/

--*****

insert into silverticket values(1,50,sysdate,'online',to_date('20-Apr-2023 12:00:00 pm','dd-mon-yyyy
hh:mi:ss pm'), 10, 100,'A1',2);

insert into goldticket values(2,100,sysdate,'online',to_date('20-Apr-2023 12:00:00 pm','dd-mon-yyyy
hh:mi:ss pm'), 10, 100,'B1',2);

```

## **Output:**

```

ORA-20202: Silver seatnum A1 already booked ORA-06512: at
"SQL_OUKXPLQNL DYJARMZZXAZUFRDU.T5", line 7 ORA-06512: at "SYS.DBMS_SQL", line
1721

```

```

ORA-20202: Gold seatnum B1 already booked ORA-06512: at
"SQL_OUKXPLQNL DYJARMZZXAZUFRDU.T6", line 7 ORA-06512: at "SYS.DBMS_SQL", line
1721

```

**4) Check that the seat numbers should not exceed specified capacity of a screen in a theatre.**

--for silver seats

```
create trigger t7 before insert on silver_seat for each row
declare
g_count number:=0;
n screen.silver_seats%type;
begin
select silver_seats into n from screen where th_id=:new.th_id and screen_id=:new.screen_id;
select count(*) into g_count from silver_seat where sdatetime=:new.sdatetime and
th_id=:new.th_id and screen_id=:new.screen_id;
if g_count>=n
then
raise_application_error(-20202,'Maximum Silver seats capacity exceeded.');
```

```
end if;
```

```
end;
```

```
/
```

--for gold seats

```
create trigger t8 before insert on gold_seat for each row
```

```
declare
```

```
g_count number:=0;
```

```
n screen.gold_seats%type;
```

```
begin
```

```
select gold_seats into n from screen where th_id=:new.th_id and screen_id=:new.screen_id;
```

```
select count(*) into g_count from gold_seat where sdatetime=:new.sdatetime and th_id=:new.th_id
and screen_id=:new.screen_id;
```

```
if g_count>=n
```

```
then
```

```
raise_application_error(-20202,'Maximum gold seats capacity exceeded.');
```

```
end if;
```

```
end;
```

/

--\*\*\*\*\*

```
insert into silver_seat values('A8', 10, 100, to_date('20-Apr-2023 12:00:00 pm','dd-mon-yyyy
hh:mi:ss pm'),1);
```

```
insert into gold_seat values('B9', 10, 100,to_date('20-Apr-2023 12:00:00 pm','dd-mon-yyyy hh:mi:ss
pm'),1);
```

```
insert into gold_seat values('B10', 10, 100,to_date('20-Apr-2023 12:00:00 pm','dd-mon-yyyy hh:mi:ss
pm'),1);
```

```
insert into gold_seat values('B10', 10, 100,to_date('20-Apr-2023 12:00:00 pm','dd-mon-yyyy hh:mi:ss
pm'),1);
```

## **Output:**

```
ORA-20202: Maximum Silver seats capacity exceeded. ORA-06512: at
"SQL_OUKXPLQNL DYJARMZZXAZUFRDU.T7", line 9 ORA-06512: at "SYS.DBMS_SQL", line
1721
```

1 row(s) inserted.

1 row(s) inserted.

```
ORA-20202: Maximum gold seats capacity exceeded. ORA-06512: at
"SQL_OUKXPLQNL DYJARMZZXAZUFRDU.T8", line 9 ORA-06512: at "SYS.DBMS_SQL", line
1721
```

**5) Trigger to check that ticket id for a show cannot be same for silver and gold ticket.**

create trigger t9 before insert on silverticket for each row

declare

g\_count number:=0;

begin

select count(1) into g\_count from goldticket where ticket\_id=:new.ticket\_id and  
sdatetime=:new.sdatetime and th\_id=:new.th\_id and screen\_id=:new.screen\_id;

if g\_count>0

then

raise\_application\_error(-20202,'Silver ticket id and gold ticket id cannot be same for a movie show');

end if;

end;

/

create trigger t10 before insert on goldticket for each row

declare

g\_count number:=0;

begin

select count(1) into g\_count from silverticket where ticket\_id=:new.ticket\_id and  
sdatetime=:new.sdatetime and th\_id=:new.th\_id and screen\_id=:new.screen\_id;

if g\_count>0

then

raise\_application\_error(-20202,'Silver ticket id and gold ticket id cannot be same for a movie show');

end if;

end;

/

--\*\*\*\*\*

```
insert into goldticket values(3,100,sysdate,'online',to_date('20-Apr-2023 12:00:00 pm','dd-mon-yyyy  
hh:mi:ss pm'), 10, 100,'B2',3);
```

```
insert into silverticket values(3,100,sysdate,'online',to_date('20-Apr-2023 12:00:00 pm','dd-mon-  
yyyy hh:mi:ss pm'), 10, 100,'A2',1);
```

```
insert into goldticket values(1,100,sysdate,'online',to_date('20-Apr-2023 12:00:00 pm','dd-mon-yyyy  
hh:mi:ss pm'), 10, 100,'B3',3);
```

## **Output:**

1 row(s) inserted.

```
ORA-20202: Silver ticket id and gold ticket id cannot be same for a movie  
show ORA-06512: at "SQL_OUKXPLQNLDYJARMZZXAZUFRDU.T9", line 7 ORA-06512: at  
"SYS.DBMS_SQL", line 1721
```

```
ORA-20202: Silver ticket id and gold ticket id cannot be same for a movie show  
ORA-06512: at "SQL_OUKXPLQNLDYJARMZZXAZUFRDU.T10", line 7 ORA-06512: at  
"SYS.DBMS_SQL", line 1721
```