

# DBMS Lab 12

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[Github Link](#)

## Question 1

Write a trigger that is fired before the DML statement's execution on the EMPLOYEE table. The trigger checks the day based on SYSDATE. If the day is Sunday, the trigger does not allow the DML statements execution and raises an exception. Write the appropriate message in the exception-handling section.

## Solution

```
create table employee(  
    id number,  
    first varchar(20),  
    salary number(10),  
    hireDate date  
);  
  
insert into employee values(01, 'emp', 2012344, '12-Oct-2001');  
insert into employee values(11, 'emp', 50000, '11-Mar-2021');  
insert into employee values(02, 'emp', 560000, '17-May-1990');  
insert into employee values(012, 'emp', 5600002, '17-Jun-1990');  
insert into employee values(123121, 'emp', 23434, '1-Nov-2019');  
insert into employee values(1123, 'emp', 3444, '12-Jan-2020');  
insert into employee values(1231, 'emp', 33344, '21-Oct-2000');  
insert into employee values(31, 'emp', 56744, '12-Oct-2001');  
insert into employee values(100, 'emp', 345, '28-Feb-2022');  
set serveroutput ON;  
  
CREATE OR REPLACE TRIGGER nice BEFORE INSERT OR DELETE OR UPDATE ON employee FOR  
EACH ROW  
DECLARE  
    currDate varchar(12);  
BEGIN  
    SELECT TO_CHAR(SYSDATE, 'DAY') INTO currDate FROM dual;  
    IF currDate = 'SUNDAY' THEN  
        DBMS_OUTPUT.PUT_LINE('Its Allowed');  
    ELSE  
        RAISE_APPLICATION_ERROR(-20024, 'DML not allowed in other days');  
    END IF;  
END;
```

## Output

```

e v Trigger created.
e v
e v SQL> select * from employee;
e v
e v      ID FIRST      SALARY HIREDATE
e v      -----
;      1 emp      2012344 12-OCT-01
      11 emp      50000 11-MAR-21
      2 emp      560000 17-MAY-90
      12 emp      5600002 17-JUN-90
123121 emp      23434 01-NOV-19
1123 emp      3444 12-JAN-20
1231 emp      33344 21-OCT-00
      31 emp      56744 12-OCT-01
      100 emp      345 28-FEB-22

9 rows selected.

SQL> delete from employee where id=100;
delete from employee where id=100
*
ERROR at line 1:
ORA-20024: DML not allowed in other days
ORA-06512: at "SYSTEM.NICE", line 8
ORA-04088: error during execution of trigger 'SYSTEM.NICE'

SQL>

```

## Question 2

Write a trigger that is fired after an INSERT statement is executed for the STUDENT table. The trigger writes the new students ID, users name, and systems date in a table called TRACKING. (Note: You must create the TRACKING table first).

## Solution

```

-- select user from dual;
create table TRACKING(
  id char(5),
  name varchar2(30),
  SysDa date
);
set SERVEROUTPUT ON;
create or replace TRIGGER q2 after insert on student FOR EACH row
BEGIN
  insert into TRACKING values(:NEW.STUDENTID, :NEW.FIRST, SYSDATE);

```

```
END;
```

```
insert into student values('01111','ss','XYZ','213
Broadway','Clifton','NJ','07222','WN03','07-JUL-84', 222, 200,'2015556666');
insert into student values('01221','ss1','XYZ1','213
Broadway','Clifton','NJ','07222','WN03','07-JUL-84', 222, 200,'2015556666');
```

## Output

```
554444
T ON; 00104 Lee          Brian          2845 First Lane      Hope          NY 11373 W
ce TRIG 555555
        00105 Khan      Amir          213 Broadway        Clifton       NJ 07222 W
556666
RACKING 6 rows selected.

SQL>
SQL>
SQL>
SQL>
SQL>
SQL> insert into student values('01111','ss','XYZ','213 Broadway','Clifton','NJ','07222','WN

1 row created.

SQL> select * from tracking;

ID      NAME                      SYSDA
-----
01111 XYZ                      27-APR-22

SQL> insert into student values('01221','ss1','XYZ1','213 Broadway','Clifton','NJ','07222','WN
);

1 row created.

SQL> select * from tracking;

ID      NAME                      SYSDA
-----
01111 XYZ                      27-APR-22
01221 XYZ1                     27-APR-22

SQL> █
```

## Question 3

Create a complex view EMP\_DEP\_VIEW using an outer join between EMPLOYEE and DEPENDENT table with employee names, dependents birthdate and relation. The outer join will also return employees without any dependents. Now, create an INSTEAD OF trigger based on EMP\_DEP\_VIEW to enable you to delete employee 433 through view.

## Solution

```
create table dependent(
  d_id number PRIMARY KEY,
```

```
    birthday date NOT NULL,
    relation varchar2(35) NOT NULL
);
create table employee(
    id number PRIMARY KEY,
    d_id number NULL,
    name varchar2(25) NOT NULL
);

insert into dependent VALUES(11, '31-Jan-2001', 'Son');
insert into dependent VALUES(12, '1-Feb-1999', 'Daughter');
insert into dependent VALUES(13, '12-Jun-1982', 'Mother');
insert into dependent VALUES(14, '28-July-1972', 'Father');

insert into employee VALUES(1, 11, 'Name 1');
insert into employee VALUES(2, 12, 'Name 2');
insert into employee VALUES(4, NULL, 'Name 4');
insert into employee VALUES(5, NULL, 'Name 5');
insert into employee VALUES(6, 11, 'Name 6');
insert into employee VALUES(11, 12, 'Name 11');
insert into employee VALUES(443, 13, 'Name 123');
insert into employee VALUES(13, 14, 'Name 13');

set SERVEROUTPUT ON;
CREATE OR REPLACE VIEW EMP_DEP_VIEW AS SELECT e.id, e.name, d.birthday, d.relation
FROM employee e LEFT OUTER JOIN dependent d ON
    d.d_id=e.d_id;

CREATE OR REPLACE TRIGGER view_deleter INSTEAD OF DELETE ON EMP_DEP_VIEW FOR EACH
ROW
BEGIN
    DELETE FROM employee WHERE id=:OLD.id AND :OLD.id=443;
END;

DELETE FROM EMP_DEP_VIEW WHERE id=13;
DELETE FROM EMP_DEP_VIEW WHERE id=443;
```

Output

```
SQL>
SQL> DELETE FROM EMP_DEP_VIEW WHERE id=13;
```

```
1 row deleted.
```

```
SQL> select * from EMP_DEP_VIEW;
```

ID	NAME	BIRTHDAY	RELATION
1	Name 1	31-JAN-01	Son
6	Name 6	31-JAN-01	Son
2	Name 2	01-FEB-99	Daughter
11	Name 11	01-FEB-99	Daughter
443	Name 123	12-JUN-82	Mother
13	Name 13	28-JUL-72	Father
4	Name 4		
5	Name 5		

```
8 rows selected.
```

```
SQL> DELETE FROM EMP_DEP_VIEW WHERE id=443;
```

```
1 row deleted.
```

```
SQL> select * from EMP_DEP_VIEW;
```

ID	NAME	BIRTHDAY	RELATION
1	Name 1	31-JAN-01	Son
6	Name 6	31-JAN-01	Son
2	Name 2	01-FEB-99	Daughter
11	Name 11	01-FEB-99	Daughter
13	Name 13	28-JUL-72	Father
4	Name 4		
5	Name 5		

```
7 rows selected.
```

```
SQL> 
```