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DBMS-LAB-8

Step 1: Create the following tables with the schema as below and insert 10 records to it.

```
pes1ug19ec339_varsha=# Create table Departmen
Dname varchar(20),
Dno int,
Totalsal int,
Mgrssn varchar(10),
primary key(Dno)
);
CREATE TABLE
```

```
pes1ug19ec339_varsha=# create table Employee(
pes1ug19ec339_varsha(# Name varchar(30),
pes1ug19ec339_varsha(# SSN int,
pes1ug19ec339_varsha(# Salary int,
pes1ug19ec339_varsha(# Dno int,
pes1ug19ec339_varsha(# Superssn varchar(10),
pes1ug19ec339_varsha(# primary key(SSN),
pes1ug19ec339_varsha(# foreign key(Dno) references Department on delete cascade
pes1ug19ec339_varsha(# );
CREATE TABLE
```

Step 2: Create a view with the name EMP_VIEW fetching the columns Name, salary from employee and Dname from department.

```
pes1ug19ec339_varsha=# create view EMP_VIEW as
pes1ug19ec339_varsha-# select Name,Salary,Dname
pes1ug19ec339_varsha-# from Employee,Department;
CREATE VIEW
```

Step 3: Get to know what is the command to see the list of available views in the database?

`\dv` gives the list of views in the database

```
pes1ug19ec339_varsha=# \dv
          List of relations
Schema |   Name   | Type | Owner
-----+-----+-----+-----
public | emp_view | view | postgres
(1 row)
```

Step 4: Query the view to answer the following queries

- A) Select all the employees who belongs to a particular department and whose salary is > 10000

```
pes1ug19ec339_varsha=# SELECT e.name,d.Dname
pes1ug19ec339_varsha-# from Employee as e,Department as d
pes1ug19ec339_varsha-# where e.Salary>10000 and e.Dno=d.Dno;
  name |      dname
-- Rhythmbox -----
soumya | SALESMAN
Agastya | MANAGER
shravya | ANALYST
namrata | PRESIDENT
prajwal | CLERK
(5 rows)
```

- B) Write a query to group by the department and get the total salary of each department.

```
pes1ug19ec339_varsha=# select sum(salary),Dno
pes1ug19ec339_varsha-# from Employee
pes1ug19ec339_varsha-# group by Dno;
  sum | dno
-----+-----
15000 | 9
 4000 | 3
50000 | 5
 9000 | 4
20000 | 10
70000 | 6
 8000 | 2
 5000 | 7
 5000 | 1
45000 | 8
(10 rows)
```

Step 5: Create a row level trigger named EMP_TGR for the table employee. Whenever a new insert happens, then the trigger should be fired. The total salary in department table should be recalculated accordingly

```
pes1ug19ec339_varsha=# create or replace function test() returns trigger as
pes1ug19ec339_varsha=# $BODY$ begin
pes1ug19ec339_varsha=# update Department set Totalsal=totalsal+new.Salary
pes1ug19ec339_varsha=# where Dno=new.Dno;
pes1ug19ec339_varsha=# return null;
pes1ug19ec339_varsha=# end;
pes1ug19ec339_varsha=# $BODY$ language
pes1ug19ec339_varsha=# 'plpgsql';
CREATE FUNCTION
pes1ug19ec339_varsha=#
pes1ug19ec339_varsha=# create trigger EMP_TGR
pes1ug19ec339_varsha=# AFTER insert on employee for each row
pes1ug19ec339_varsha=# execute procedure test();
CREATE TRIGGER
```

```
pes1ug19ec339_varsha=# select * from department;
      dname      | dno | totalsal | mgrssn
-----+-----+-----+-----
RESEARCH        |   1 |         0 | 12341
ADMINSTRATION   |   2 |         0 | 23452
ACCOUNTING       |   3 |         0 | 34563
HEAD QUATERS    |   4 |         0 | 45674
SALESMAN        |   5 |         0 | 56785
MANAGER         |   6 |         0 | 67896
CLERK           |   7 |         0 | 78907
ANALYST         |   8 |         0 | 89018
PRESIDENT       |   9 |         0 | 90129
CLERK           |  10 |         0 | 01231
(10 rows)
```

```
pes1ug19ec339_varsha=# insert into Employee values('Darshini',21,65000,9,'E9');
INSERT 0 1
pes1ug19ec339_varsha=# select * from department;
      dname      | dno | totalsal | mgrssn
-----+-----+-----+-----
RESEARCH        |   1 |         0 | 12341
ADMINSTRATION   |   2 |         0 | 23452
ACCOUNTING       |   3 |         0 | 34563
HEAD QUATERS    |   4 |         0 | 45674
SALESMAN        |   5 |         0 | 56785
MANAGER         |   6 |         0 | 67896
CLERK           |   7 |         0 | 78907
ANALYST         |   8 |         0 | 89018
CLERK           |  10 |         0 | 01231
PRESIDENT       |   9 |      65000 | 90129
(10 rows)
```

After inserting all the values in Employee

```
pes1ug19ec339_varsha=# select * from department;
```

dname	dno	totalsal	mgrssn
CLERK	10	0	01231
PRESIDENT	9	65000	90129
RESEARCH	1	55000	12341
ADMINISTRATION	2	45000	23452
ACCOUNTING	3	76000	34563
HEAD QUARTERS	4	35000	45674
SALESMAN	5	40000	56785
MANAGER	6	48000	67896
CLERK	7	66000	78907
ANALYST	8	50000	89018

(10 rows)