**PostgreSQL Training Day-2 Tasks**

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**TASK1:**

**1**.Create an employee table with 5 records.

**Commands:**

create table emp\_details1 (empcode varchar(5),name varchar(20),age integer,designation varchar(25),location varchar(25));

insert into emp\_details1 values (1,'Raj',20,'SDE2','Mumbai'), (2,'Ram',24,'SDE3','Pune'), (3,'PKD',21,'Intern','Pune'), (4,'Sam',26,'Manager','Bangalore'), (5,'greg',25,'SDE1','Bangalore');

select \* from emp\_details1;

**2**.Create a view for empcode,designation,location from base table.

**Command:**

create view myview1 as select Empcode,Designation,Location from emp\_details1;

**3**.Delete one record from the view and check whether it is updated from base table.

**Commands:**

delete from myview1 where empcode='3';

select \* from emp\_details1;

**4**.Delete one record from base table and check if view is updated.

**Commands:**

delete from emp\_details1 where empcode='2';

select \* from myview1;

**5**.Update designation of emptable and check if it is updated in the view.

**Command:**

update emp\_details1 set designation='SDE1' where empcode='4';

select \* from myview1;

**6**.Create another view qview with all employees from pune or Mumbai.

**Command:**

create view qview as select \* from emp\_details1 where location='Mumbai' or location='Pune’;

**7**.Display view.

**Command:**

select \* from qview;

**TASK 2:**

**1.** Write a query to display the names (first\_name, last\_name) using an alias name “First Name", "Last Name".

Create  Sample table: employees

EMPLOYEE\_ID | FIRST\_NAME  | LAST\_NAME   | EMAIL    | PHONE\_NUMBER       | HIRE\_DATE  | JOB\_ID     | SALARY   | COMMISSION\_PCT | MANAGER\_ID | DEPARTMENT\_ID |

**Command:**

create table employees1(

employee\_id varchar(20),

first\_name varchar(30),

last\_name varchar(30),

email varchar(30),

phone\_number int,

hire\_date varchar(20),

job\_id varchar(20),

salary int,

commission\_pct int,

manager\_id varchar(20),

department\_id varchar(20)

);

select first\_name as “First Name”,last\_name as “Last Name” from employees1;

**2**. Write a query to get a unique department ID from employee table.

Sample table: employees

**Command:**

select distinct department\_id from employees1;

**3**. Write a query to get the details of all employees from the employee table in descending order by their first name.

Sample table: employees

**Command:**

select \* from employees1 order by first\_name desc;

**4**. Write a query to get the names (first\_name, last\_name), salary and 15% of salary as PF for all the employees.

Sample table: employees

**Command:**

select first\_name,last\_name,salary,0.15\*salary as "pf" from employees1;

**5**. Write a query to get the employee ID, names (first\_name, last\_name) and salary in ascending order according to their salary.

**Command:**

select employee\_id,first\_name,last\_name,salary from employees1 order by salary;

**6**. Write a query to get the total salaries payable to employees.

Sample table: employees

**Command:**

select sum(salary) as “Total Salaries” from employees1;

**7**. Write a query to get the maximum and minimum salary paid to the employees.

Sample table: employees

**Command:**

select max(salary) as "max salary",min(salary) as "min salary" from employees1;

**8**. Write a query to get the average salary and number of employees are working.

Sample table: employees

**Command:**

select avg(salary) as "avg salary",count(\*) from employe

**9**. Write a query to get the number of employees working with the company.

Sample table: employees

**Command:**

select count(\*) as “No of employees” from employees1;

**10**. Write a query to get the unique number of designations available in the employees table.

Sample table: employees

**Command:**

select count(distinct department\_id) from employees1;

**TASK3: Creating Indexes**

1. Create index on empcode.

**Command:**

create index index1 on emp\_details2(empcode);

1. Create index index2 in empcode,name.

**Command:**

create index index2 on emp\_details2(empcode,name);

1. To view indexes available on a table.

**Command:**

select indexname from pg\_indexes where tablename='emp\_details2';

**TASK4: Set Operations**

1. Perform union operation.

**Command:**

select \* from t1 union select \* from t2;

1. Perform intersect operation.

**Command:**

select \* from t1 intersect select \* from t2;

1. Perform except operation.

**Command:**

select \* from t1 except select \* from t2;

**TASK5: Join Operations**

**Table 1 Creation**:

create table t1(sno integer,name varchar(25),job varchar(20));

insert into t1 values(10,'a','se1'),(11,'b','se2'),(12,'c','se3'),(14,'d','se1');

select \* from t1;

**Table 2 Creation**:

create table t2(sno integer,name varchar(25),job varchar(20));

insert into t2 values(13,'e','se1'),(11,'b','se2'),(12,'c','se3'),(15,'f','se1');

select \* from t2;

1. Perform inner join operation.

**Command:**

select \* from t1 inner join t2 on t1.sno=t2.sno;

1. Perform left outer join operation.

**Command:**

select \* from t1 left outer join t2 on t1.sno=t2.sno;

1. Perform right outer join operation.

**Command:**

select \* from t1 right outer join t2 on t1.sno=t2.sno;

1. Perform full outer join operation.

**Command:**

select \* from t1 full outer join t2 on t1.sno=t2.sno;