NAME: Saksham mishra
Date:05/03/2022

1. WAQ to display second highest salary in HR schema.

```
postgres=# select MAX(salary) from employees where salary < (select MAX(salary) from
employees);
   max
----------
 17000.00
(1 row)
```

2. WAQ to display name of employee who is earning maximum in his/her department.

```
postgres=#   SELECT department_id, first_name, salary FROM employees d WHERE salary =
(SELECT MAX(salary) FROM employees WHERE department_id = d.department_id);
 department_id | first_name |  salary
---------------+------------+----------
            90 | Steven     | 24000.00
            60 | Alexander  |  9000.00
           100 | Nancy      | 12000.00
            30 | Den        | 11000.00
            50 | Adam       |  8200.00
            80 | John       | 14000.00
            10 | Jennifer   |  4400.00
            20 | Michael    | 13000.00
            40 | Susan      |  6500.00
            70 | Hermann    | 10000.00
           110 | Shelley    | 12000.00
(11 rows)
```

3. WAQ to display emplyees count who are working from same location.

```
postgres=# select l.city , count(e.first_name) as Employees from employees e, departments d ,
locations l where e.department_id = d.department_id and d.location_id = l.location_id group by
city;
      city        | employees
```

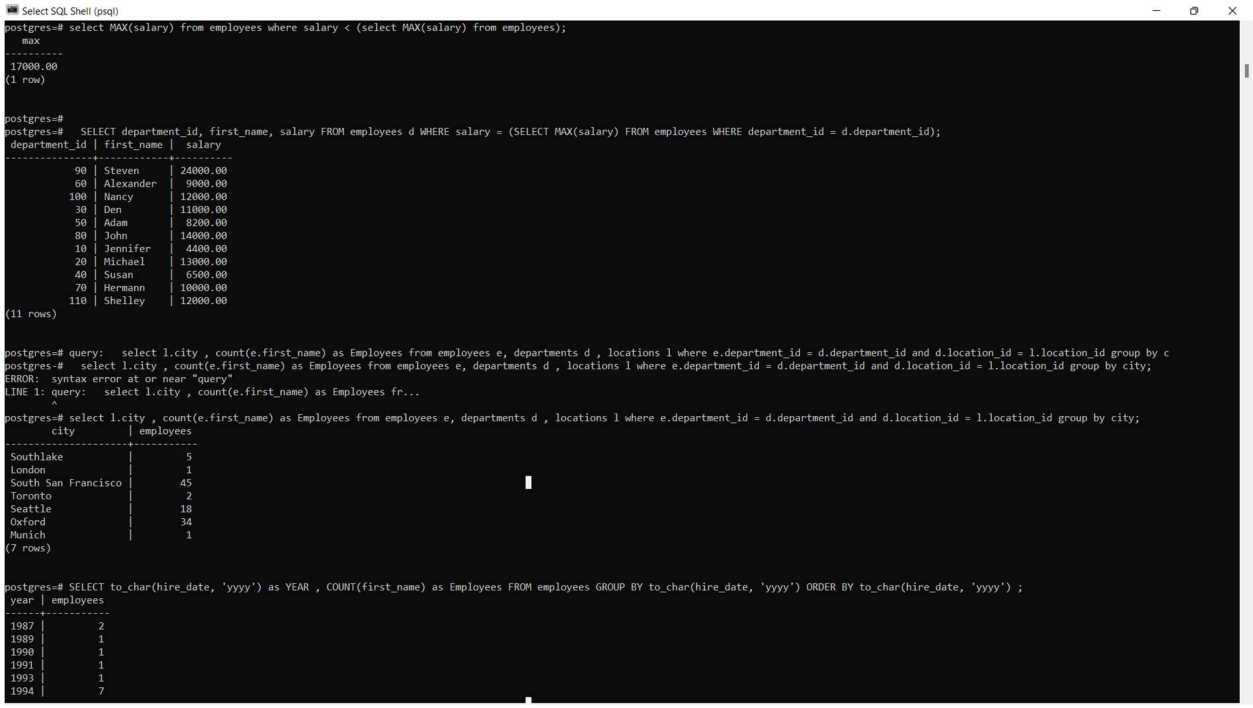
```
---------------------+-----------
 Southlake           |         5
 London              |         1
 South San Francisco |        45
 Toronto             |         2
 Seattle             |        18
 Oxford              |        34
 Munich              |         1
```

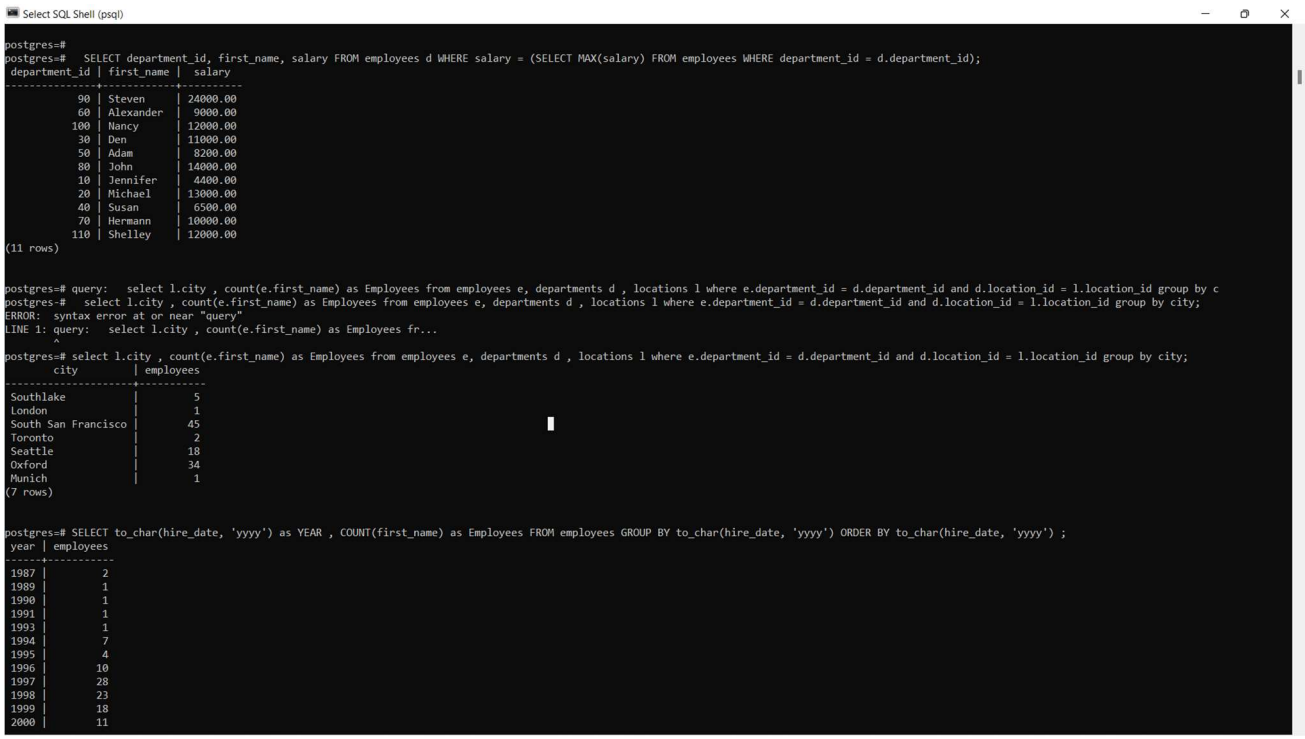
4. WAQ to display number of employees joined year wise.

```
postgres=# SELECT to_char(hire_date, 'yyyy') as YEAR , COUNT(first_name) as Employees FROM
employees GROUP BY to_char(hire_date, 'yyyy') ORDER BY to_char(hire_date, 'yyyy') ;
 year | employees
------+-----------
 1987 |         2
 1989 |         1
 1990 |         1
 1991 |         1
 1993 |         1
 1994 |         7
 1995 |         4
 1996 |        10
 1997 |        28
 1998 |        23
 1999 |        18
 2000 |        11
(12 rows)
```

5. WAP to top 2 earning employee name and salary in each department.

```
postgres=# select first_name , salary from employees order by salary desc limit 2;
 first_name |  salary
------------+----------
 Steven     | 24000.00
 Neena      | 17000.00
(2 rows)
```


Select SQL Shell (psql)
postgres=# select MAX(salary) from employees where salary < (select MAX(salary) from employees);
max
17000.00
(1 row)
postgres=#
postgres=# SELECT department_id, first_name, salary FROM employees d WHERE salary = (SELECT MAX(salary) FROM employees WHERE department_id = d.department_id);
department_id | first_name | salary
90 | Steven | 24000.00
60 | Alexander | 9000.00
100 | Nancy | 12000.00
30 | Den | 11000.00
50 | Adam | 8200.00
80 | John | 14000.00
10 | Jennifer | 4400.00
20 | Michael | 13000.00
40 | Susan | 6500.00
70 | Hermann | 10000.00
110 | Shelley | 12000.00
(11 rows)
postgres=# query: select l.city , count(e.first_name) as Employees from employees e, departments d , locations l where e.department_id = d.department_id and d.location_id = l.location_id group by c
postgres-# select l.city , count(e.first_name) as Employees from employees e, departments d , locations l where e.department_id = d.department_id and d.location_id = l.location_id group by city;
ERROR: syntax error at or near "query"
LINE 1: query: select l.city , count(e.first_name) as Employees fr...
^
postgres=# select l.city , count(e.first_name) as Employees from employees e, departments d , locations l where e.department_id = d.department_id and d.location_id = l.location_id group by city;
city | employees
Southlake | 5
London | 1
South San Francisco | 45
Toronto | 2
Seattle | 18
Oxford | 34
Munich | 1
(7 rows)
postgres=# SELECT to_char(hire_date, 'yyyy') as YEAR , COUNT(first_name) as Employees FROM employees GROUP BY to_char(hire_date, 'yyyy') ORDER BY to_char(hire_date, 'yyyy') ;
year | employees
1987 | 2
1989 | 1
1990 | 1
1991 | 1
1993 | 1
1994 | 7


Select SQL Shell (psql)
postgres=#
postgres=# SELECT department_id, first_name, salary FROM employees d WHERE salary = (SELECT MAX(salary) FROM employees WHERE department_id = d.department_id);
department_id | first_name | salary
90 | Steven | 24000.00
60 | Alexander | 9000.00
100 | Nancy | 12000.00
30 | Den | 11000.00
50 | Adam | 8200.00
80 | John | 14000.00
10 | Jennifer | 4400.00
20 | Michael | 13000.00
40 | Susan | 6500.00
70 | Hermann | 10000.00
110 | Shelley | 12000.00
(11 rows)
postgres=# query: select l.city , count(e.first_name) as Employees from employees e, departments d , locations l where e.department_id = d.department_id and d.location_id = l.location_id group by c
postgres-# select l.city , count(e.first_name) as Employees from employees e, departments d , locations l where e.department_id = d.department_id and d.location_id = l.location_id group by city;
ERROR: syntax error at or near "query"
LINE 1: query: select l.city , count(e.first_name) as Employees fr...
^
postgres=# select l.city , count(e.first_name) as Employees from employees e, departments d , locations l where e.department_id = d.department_id and d.location_id = l.location_id group by city;
city | employees
Southlake | 5
London | 1
South San Francisco | 45
Toronto | 2
Seattle | 18
Oxford | 34
Munich | 1
(7 rows)
postgres=# SELECT to_char(hire_date, 'yyyy') as YEAR , COUNT(first_name) as Employees FROM employees GROUP BY to_char(hire_date, 'yyyy') ORDER BY to_char(hire_date, 'yyyy') ;
year | employees
1987 | 2
1989 | 1
1990 | 1
1991 | 1
1993 | 1
1994 | 7
1995 | 4
1996 | 10
1997 | 28
1998 | 23
1999 | 18
2000 | 11

SQL Shell (psql)

```
 year | employees
------+-----------
 1987 |         2
 1989 |         1
 1990 |         1
 1991 |         1
 1993 |         1
 1994 |         7
 1995 |         4
 1996 |        10
 1997 |        28
 1998 |        23
 1999 |        18
 2000 |        11
(12 rows)


postgres=# select first_name , salary from employees order by salary desc limit 2;
 first_name |  salary
------------+----------
 Steven     | 24000.00
 Neena      | 17000.00
(2 rows)


postgres-#
```