21BDS0340

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Database Management Systems Lab

Exercise – IV

1. How many different departments are there in the ‘employee’ table

Command:
select distinct dept from employee_bds0340;

Output:

```
SQL> select distinct dept from employee_bds0340;

      DEPT
----------
         3
         2
         5
         4
         1
```

2. For each department display the minimum and maximum salaries

Command:
select dept, min(salary), max(salary) from employee_bds0340 group by dept;

Output:

```
SQL> select dept, min(salary), max(salary) from employee_bds0340 group by dept;

      DEPT MIN(SALARY) MAX(SALARY)
---------- ----------- -----------
         3       80000       80000
         2       70000       70000
         5       25000       40000
         4       25000       43000
         1       55000       55000
```

3. Print the average annual salary

Command:
select avg(salary) from employee_bds0340;

Output:

```
SQL> select avg(salary) from employee_bds0340;

AVG(SALARY)
-----------
      43100
```

4. Count the number of employees over age 30

Command:
select count(*) from employee_bds0340 where floor(months_between(sysdate, bday) / 12) >= 30;

Output:

```
SQL> select count(*) from employee_bds0340 where floor(months_between(sysdate, bday) / 12) >= 30;

  COUNT(*)
----------
        10
```

5. Print the department name and average salary of each department

Command:
select d.name, avg(e.salary) from employee_bds0340 e join department_bds0340 d on e.dept = d.num group by d.name;

Output:

```
SQL> select d.name, avg(e.salary) from employee_bds0340 e join department_bds0340 d on e.dept = d
up by d.name;

NAME                     AVG(E.SALARY)
------------------------ -------------
Headquarter                      80000
Administration                   70000
Research                         33250
Finance                          31000
Manufacture                      55000
```

6. Display the department name which contains more than 30 employees

Command:
select d.name from employee_bds0340 e join department_bds0340 d on e.dept = d.num group by d.name having count(*) >= 30;

Output:

```
SQL> select d.name from employee_bds0340 e join department_bds0340 d on e.dept = d.num group by d
ving count(*) >= 30;

no rows selected
```

7. Calculate the average salary of employees by department and age

Command:

select d.name, floor(months_between(sysdate, e.bday) / 12) as age, avg(e.salary) from employee_bds0340 e join department_bds0340 d on e.dept = d.num group by d.name, floor(months_between(sysdate, e.bday) / 12);

Output:

```
SQL> select d.name, floor(months_between(sysdate, e.bday) / 12) as age, avg(e.salary) from employ
40 e join department_bds0340 d on e.dept = d.num group by d.name, floor(months_between(sysdate, e
 12);

NAME                           AGE AVG(E.SALARY)
------------------------- ---------- -------------
Headquarter                     63         80000
Administration                  45         70000
Research                        77         40000
Finance                         91         43000
Research                        68         30000
Research                        70         38000
Research                        60         25000
Manufacture                     95         55000
Finance                         64         25000

9 rows selected.
```

8. Count separately the number the number of employees in the research and finance department

Command:

select d.name, count(*) from employee_bds0340 e join department_bds0340 d on e.dept = d.num where d.name in ('Research', 'Finance') group by d.name;

Output:

```
SQL> select d.name, count(*) from employee_bds0340 e join department_bds0340 d on e.dept = d.num
name in ('Research', 'Finance') group by d.name;

NAME                       COUNT(*)
------------------------ ----------
Research                          4
Finance                           3
```

9. List out all the employees based on seniority

Command:

select l_name, m_name, l_name from employee_bds0340 order by months_between(sysdate, bday);

Output:

```
SQL> select l_name, m_name, l_name from employee_bds0340 order by months_between(sysdate, bday);

L_NAME                    M L_NAME
------------------------- - -------------------------
Pan                       Y Pan
English                   A English
Glibert                   E Glibert
Jabbar                    V Jabbar
Zelaya                    J Zelaya
Smith                     B Smith
Narayan                   K Narayan
Wong                      T Wong
Wallace                   S Wallace
Borg                      E Borg

10 rows selected.
```

10. List out all the employees who works in manufacturing department and group by first name

Command:

select f_name from employee_bds0340 where dept = (select num from department_bds0340 where name = 'Manufacture') order by f_name;

Output:

```
SQL> select f_name from employee_bds0340 where dept = (select num from department_bds0340 where n
anufacture') order by f_name;

F_NAME
-------------------------
James
```