DBMS LAB - 3

Academic year: 2020-2021   **Semester:** Long Sem

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Lab Exercise -3

1. Display the substring of the Address (starting from 5th position to 11 th position) of all Employees.

```
SELECT ADDRESS, SUBSTR(ADDRESS, 5, 11)

 FROM EMPLOYEE;
```

```
SQL> SELECT ADDRESS, SUBSTR(ADDRESS, 5, 11)
  2    FROM EMPLOYEE;

ADDRESS
-----------------------------------------------
SUBSTR(ADDRESS,5,11)
-----------------------------------------------
11 S 59 E, Salt Lake City, UT
 59 E, Salt

35 S 18 E, Salt Lake City, UT
 18 E, Salt

638 Voss, Houston, TX
Voss, Houst
```

```
ADDRESS
-----------------------------------------------
SUBSTR(ADDRESS,5,11)
-----------------------------------------------
291 Berry, Bellaire, TX
Berry, Bell

731 Fondren, Houston, TX
Fondren, Ho

975 Fire Oak, Humble, TX
Fire Oak, H
```

```
ADDRESS
-----------------------------------------------
SUBSTR(ADDRESS,5,11)
-----------------------------------------------
5631 Rice, Houston, TX
 Rice, Hous

450 Stone, Houston, TX
Stone, Hous

3321 Castle, Spring, TX
 Castle, Sp
```

```
ADDRESS
-----------------------------------------------
SUBSTR(ADDRESS,5,11)
-----------------------------------------------
980 Dallas, Houston, TX
Dallas, Hou

10 rows selected.
```

2. Display the Mgrstartdate on adding three months to it.

```
SELECT MANAGESTARTDATE, ADD_MONTHS(MANAGESTARTDATE, 3)
```

```
        FROM DEPT;
```

```
SQL> SELECT MANAGESTARTDATE, ADD_MONTHS(MANAGESTARTDATE, 3)
  2        FROM DEPT;

MANAGESTA ADD_MONTH
--------- ---------
19-JUN-71 19-SEP-71
04-JAN-99 04-APR-99
22-SEP-55 22-DEC-55
01-JAN-85 01-APR-85
22-MAY-78 22-AUG-78
```

3. Display the age of all the employees rounded to two digits.

```
SELECT BIRTHDAY, ROUND((MONTHS_BETWEEN(SYSDATE, BIRTHDAY)/12), 2)

    FROM EMPLOYEE;
```

```
SQL> SELECT BIRTHDAY, ROUND((MONTHS_BETWEEN(SYSDATE, BIRTHDAY)/12), 2)
  2        FROM EMPLOYEE;

BIRTHDAY  ROUND((MONTHS_BETWEEN(SYSDATE,BIRTHDAY)/12),2)
--------- ----------------------------------------------
09-JUN-60                                          62.04
07-FEB-78                                          44.38
08-DEC-45                                         -23.45
20-JUN-31                                          -8.99
09-JAN-55                                          67.46
15-SEP-52                                          69.78
31-JUL-62                                           59.9
10-NOV-27                                          -5.38
19-JUL-58                                          63.93
29-MAR-59                                          63.24
```

4. Find the last day and next day of the month in which each manager has joined.

```
SELECT MANAGESTARTDATE, LAST_DAY(MANAGESTARTDATE), MANAGESTARTDATE+1

    FROM DEPT;
```

```
SQL> SELECT MANAGESTARTDATE, LAST_DAY(MANAGESTARTDATE), MANAGESTARTDATE+1
  2        FROM DEPT;

MANAGESTA LAST_DAY( MANAGESTA
--------- --------- ---------
19-JUN-71 30-JUN-71 20-JUN-71
04-JAN-99 31-JAN-99 05-JAN-99
22-SEP-55 30-SEP-55 23-SEP-55
01-JAN-85 31-JAN-85 02-JAN-85
22-MAY-78 31-MAY-78 23-MAY-78
```

5. Print a substring from the string 'Harini'.

```
SELECT SUBSTR('HARINI',1,4)

    FROM DUAL;
```

```
SQL> SELECT SUBSTR('HARINI',1,4)
  2      FROM DUAL;

SUBS
----
HARI
```

6. Replace the string 'ni' from 'Harini' by 'sh'.

```
SELECT REPLACE('HARINI', 'NI', 'SH'

    )

    FROM DUAL;
```

```
SQL> SELECT REPLACE('HARINI', 'NI', 'SH'
  2      )
  3      FROM DUAL;

REPLAC
------
HARISH
```

7. Print the length of all the department names.

```
SELECT DEPT_NAME, LENGTH(DEPT_NAME)

    FROM DEPT;
```

```
SQL> SELECT DEPT_NAME, LENGTH(DEPT_NAME)
  2      FROM DEPT;

DEPT_NAME        LENGTH(DEPT_NAME)
--------------- -----------------
Manufacture                    11
Administration                 14
Headquarter                    11
Finance                         7
Research                        8
```

8. Print the system date in the format 25 th May 2007.

```
SELECT TO_CHAR (SYSDATE, 'DDth  fmmonth yyyy')
```

```
      from dual;
```

```
SQL> SELECT TO_CHAR (SYSDATE, 'DDth  fmmonth yyyy')
  2       from dual;

TO_CHAR(SYSDATE,'DDTHFMMONTHYYYY')
------------------------------------------------
25TH  june 2022
```

9. Display the date after 10 months from the current date.

```
SELECT ADD_MONTHS(SYSDATE, 10)

    FROM DUAL;
```

```
SQL> SELECT ADD_MONTHS(SYSDATE, 10)
  2       FROM DUAL;

ADD_MONTH
---------
25-APR-23
```

10. Display the next occurrence of Friday in this month.

```
SELECT NEXT_DAY(SYSDATE, 'Friday')

    FROM DUAL;
```

```
SQL> SELECT NEXT_DAY(SYSDATE, 'Friday')
  2       FROM DUAL;

NEXT_DAY(
---------
01-JUL-22
```

11. How many different departments are there in the 'employee' table

```
select count(distinct dept_no) from Employee;
```

```
SQL> select count(distinct dept_no) from Employee;

COUNT(DISTINCTDEPT_NO)
----------------------
                     4
```

12. For each department display the minimum and maximum employee salaries

```
select min(salary),max(salary) from employee;
```

```
SQL> select min(salary), max(salary) from employee;

MIN(SALARY) MAX(SALARY)
----------- -----------
      25000       80000
```

13. Print the average annual salary.

```
select avg(salary*12) from employee;
```

```
SQL> select avg(salary*12) from employee;

AVG(SALARY*12)
--------------
        517200
```

14. Count the number of employees over 30 age.

```
select count(SSN_NUMBER) from employee where (abs(extract(year from
sysdate)-(extract(year from Birthday)))>30);
```

```
SQL> select count(SSN_NUMBER) from employee where (abs(extract(year from sysdate)-(extract(year from Birthday)))>30);

COUNT(SSN_NUMBER)
-----------------
                7
```

15. Print the Department name and average salary of each department.

```
select d.DEPT_NAME, avg(e.SALARY) from DEPT d, EMPLOYEE e;

SELECT DEPT_NAME, AVG(salary)
    FROM dept
        JOIN employee USING (DEPT_NO)
GROUP BY DEPT_NO;
```

16. Create a view to display the employee details who is working in the IT department.

```
CREATE VIEW employee_details
AS
SELECT *
FROM Employee
where DEPT_NO=(select DEPT_NO from dept where DEPT_NAME='ITdepartment');
```

```
SQL> CREATE VIEW employee_details
  2  AS
  3  SELECT *
  4  FROM Employee
  5  where DEPT_NO=(select DEPT_NO from dept where DEPT_NAME='ITdepartment');

View created.
```

```
SQL> select * from  employee_details;
```

17. Create a logical table to store employee details who are getting salaries more than 10000.

```
select *FROM employee where salary>10000;
```

18. Create a table to store the employees details based on the department no

```
select FIRST_NAME,LAST_NAME,SSN_NUMBER from employee GROUP BY DEPT_NO;

CREATE TABLE employee_details_table

AS (SELECT DEPT_NO, FIRST_NAME

    FROM EMPLOYEE

    GROUP BY DEPT_NO, FIRST_NAME);
```

```
SQL> CREATE TABLE employee_details_table
  2  AS (SELECT DEPT_NO, FIRST_NAME
  3       FROM EMPLOYEE
  4       GROUP BY DEPT_NO, FIRST_NAME);

Table created.
```

```
SQL> select * from employee_details_table ;

   DEPT_NO FIRST_NAME
--------- --------------
         5 Johny
         3 Doug
         5 Joyce
         5 Frankin
         4 Jennifer
         4 Ahmad
         1 James
         5 Ramesh
         4 Alicia
```

19. List the names of all managers who have no dependents.

```
SELECT FIRST_NAME, LAST_NAME
FROM EMPLOYEE E, DEPARTMENT D
WHERE E.SSN_NUMBER=D.MANAGERSSN
AND NOT EXISTS (SELECT * FROM DEPENDENT WHERE MANAGERSSN=ESSN);
```

20. List the employee's names and the department names if they happen to manage a department.

```
select distinct e.FIRST_NAME as Employee, m.mgr as reports_to, e.FIRST_NAME as
Manager
from EMPLOYEE e, DEPARTMENT d
inner join Employee m on e.mgr = m.SSN_NUMBER;
```