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Batch CSE-06

Branch CSE

Subject DBMS

Assignment-4

Ques1 Display all employee names (last name & first name seperated by a comma & a space) with proper case & salary with currency format.

column salary format $999,999

select concat(fname, concat(', ', lname)) as fullname, salary as Salary from employee.

```
SQL> column salary format $999,999
SQL> select concat(fname,concat(', ',lname)) as Fullname, salary as Salary from employee;

FULLNAME                                  SALARY
----------------------------------------- ---------
John, Smith                              $320,650
Larry, Houstan                           $150,000
Nikhil, Gupta                             $75,000
Derek, Dave                               $80,000
Alex, McCall                              $66,500
```

Ques2 Display all employee with their commision value. Display 0 commission for employees who do not get any commission.

select Fname, Lname, NVL(commission, 0) from employee.

```
SQL> select Fname, Lname, NVL(COMMISSION,0) from employee;

FNAME                LNAME                NVL(COMMISSION,0)
-------------------- -------------------- -----------------
John                 Smith                            35000
Larry                Houstan                          10000
Nikhil               Gupta                                0
Derek                Dave                             20000
Alex                 McCall                               0
```

Ques 3 Count total no. of rooms in location.

```
select count(RoomNo) as TotalRooms from location;
```

```
SQL> select count(RoomNo) as TotalRooms from location;

TOTALROOMS
----------
         5
```

Ques 4 Count distinct building names in Location.

```
select distinct building from location
```

```
SQL> select distinct building from location;

BUILDING
--------------------
WingC
WingB
WingD
WingA
```

Ques 5 Display all student names & birthdate. Display birth date with format '20 October, 1970'.

```
select concat(fname, concat(' ', lname)) as
fullname, birthdate as Birthdate from student;
```

```
SQL> select concat(fname,concat(', ',lname)) as Fullname, birthdate as BirthDate from student;

FULLNAME                                 BIRTHDATE
---------------------------------------- ---------
Tom, Cruise                              30-APR-02
Mickey, Tyler                            18-MAR-84
Rajesh, Patel                            28-NOV-85
Deborah, Rickles                         21-JUN-01
Brian, Lee                               26-MAY-16
```

Ques 6 Find the average, highest, & lowest age for student.

```
select round(avg((sysdate - birthdate)/365.25)) "avg",
round(max((sysdate - birthdate)/365.25)) "max",
round(min((sysdate - birthdate)/365.25)) "min"
from student;
```

```
SQL> set lines 256
SQL> select round(avg((sysdate-birthdate)/365.25)) "avg",round(max((sysdate-birthdate)/365.25)) "max",
  2  round(min((sysdate-birthdate)/365.25)) "min" from student;

       avg        max        min
---------- ---------- ----------
        24         38          6
```

Ques 7 Display the total number of dependents for each employee for employees who have atleast two dependents.

```
select EmployeeID, count(*) as "No of Dependents" from
dependent group by EmployeeID having count(*) >= 2;
```

```
SQL> select EmployeeId , count(*) as "No of Dependents" from DEPENDENT group by EmployeeId having count(*) >= 1;

EMPLOYEEID No of Dependents
---------- ---------------
       111               1
       123               1
       200               1
       222               1
       543               1
```

Ques 8 Display only year value from each employee's hire date.

```
select fname, lname, extract(YEAR from Hiredate)
as HIREDATE from Employee;
```

```
SQL> select Fname, Lname, extract(YEAR from HIREDATE) as HIREDATE from employee;

FNAME                LNAME                HIREDATE
-------------------- -------------------- ----------
John                 Smith                      1960
Larry                Houstan                    1967
Nikhil               Gupta                      1991
Derek                Dave                       1995
Alex                 McCall                     1997
```

Ques 9 Find average employee commission

```
select avg(commission) as EmployeeCommission
from employee;
```

```
SQL> select avg(commission) as EmployeeCommission from employee;

EMPLOYEECOMMISSION
------------------
        21666.6667
```

Ques 10 Ignore nulls

```
select fname, lname, commission from employee
where commission is not null;
```

```
SQL> select fname, lname, commission from employee where commission is not null;

FNAME                LNAME                COMMISSION
-------------------- -------------------- ----------
John                 Smith                     35000
Larry                Houstan                   10000
Derek                Dave                      20000
```

Ques 11 Do not ignore nulls

select fname, lname, commission from employee where commission is ~~no~~null;

```
SQL> select fname, lname, commission from employee where commission is null;

FNAME                LNAME                COMMISSION
-------------------- -------------------- ----------
Nikhil               Gupta
Alex                 McCall
```

Q12 Find sum of maximum count by term by course.

select sum(maxcount) from crssection;

```
SQL> select sum(maxcount) from crssection;

SUM(MAXCOUNT)
-------------
          180
```

Ques 13 Find 2 to the power 10.

select power(2, 10) from dual;

```
SQL> select power(2,10) from dual;

POWER(2,10)
-----------
       1024
```

Ques 14 Display courses & prerequisites. If there is no prerequisite, display none else display one.

select title, case when prereq is null then 'none' else 'one' END from course;

```
SQL> select title, case when prereq is null then 'none' else 'one' END from course;

TITLE                CASE
-------------------- ----
DSA                  none
DBMS                 one
OS                   one
WebTech              one
COA                  none
```

Ques 15 Count number of faculty members by each department.

```
select count(department.facultyid), department.deptname
from department, faculty where faculty.facultyid =
department.facultyid group by department.deptname;
```

```
SQL> select count(department.facultyid), department.deptname from department,
  2  faculty where faculty.facultyid = department.facultyid group by department.deptname;

COUNT(DEPARTMENT.FACULTYID) DEPTNAME
--------------------------- --------------------
                          1 Telecommunication
                          1 Electronics
                          1 Computer Science
                          1 Accounting
```

Ques 16 Display average employee salary by department, but do not include departments with average salary less than $75,000.

```
select deptid, avg(salary) from employee group by
deptid having avg(salary) <75000;
```

```
SQL> select deptid, avg(salary) from employee group by deptid having avg(salary) < 75000;

    DEPTID AVG(SALARY)
---------- -----------
        20       73250
```

Ques 17 Find number of years employees have been working for. Display integer part of value only.

```
select EmployeeID, Trunc((Extract(Year from sysdate) -
Extract(Year from Hiredate))) as "Total number of
Years" from Employee;
```

```
SQL> select EMPLOYEEID , TRUNC(( EXTRACT(YEAR FROM SYSDATE) - EXTRACT(YEAR FROM HireDate) )) as "Total Number of Years" from EMPLOYEE;

EMPLOYEEID Total Number of Years
---------- ---------------------
       111                    62
       246                    55
       123                    31
       543                    27
       433                    25
```

Ques 18 Find students who were born in May.

```
select * from student where to_char(birthdate, 'MM')
=5;
```

```
SQL> set lines 256
SQL> select * from student where to_char(birthdate, 'MM')=5;

STUDENTID  LNAME      FNAME      STREET     CITY       STATE      ZIP STARTTERM  BIRTHDATE FACULTYID  MAJORID    PHONE
---------- ---------- ---------- ---------- ---------- ---------- --- ---------- --------- ---------- ---------- ----------
00104      Lee        Brian      FirstLane  hope       NY         11373 2018     26-MAY-16 345        500        7623451235
```

Ques 19 Display Employees last name & first name followed by salary + commission if commission is not null, else display salary only

```
select lname, fname, coalesce (salary + commission,
salary) as Payout from employee;
```

```
SQL> select LNAME,FNAME,coalesce(SALARY + COMMISSION , SALARY) as PAYOUT from EMPLOYEE;

LNAME                FNAME                    PAYOUT
-------------------- -------------------- ----------
Smith                John                     355650
Houstan              Larry                    160000
Gupta                Nikhil                    75000
Dave                 Derek                    100000
McCall               Alex                      66500
```

Ques 20 Display employee's fullname followed by a message based on salary. If salary is above $100,000, display "High". If salary is between $50,000 & $100,000, display "medium". If salary is below $50,000, display "Low".

```
select FName || ' ' || Lname as Name,(case when
Salary >= 100000 then 'High' else (case when
Salary >= 50000 then 'Medium' else 'Low' end) end)
as Message from Employee;
```

```
SQL> select FNAME ||' '|| LNAME as Name ,(case when SALARY >= 100000 then 'HIGH'
  2  else (case when SALARY >= 50000 then 'MEDIUM' else 'LOW' end) end ) as message from EMPLOYEE;

NAME                                     MESSAG
---------------------------------------- ------
John Smith                               HIGH
Larry Houstan                            HIGH
Nikhil Gupta                             MEDIUM
Derek Dave                               MEDIUM
Alex McCall                              MEDIUM
```