**practice Aggregate functions**

**12. find max sal and min sal for each job**

SQL> select max(sal), min(sal) from emp group by job;

MAX(SAL) MIN(SAL)

---------- ----------

1300 800

1600 1250

5000 5000

2975 2450

3000 3000

**13. find how many employess have not received commission**

SQL> select \* from emp where comm is null;

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

---------- ---------- --------- ---------- --------- ---------- ---------- ----------

7369 SMITH CLERK 7902 17-DEC-80 800 20

7566 JONES MANAGER 7839 02-APR-81 2975 20

7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

7782 CLARK MANAGER 7839 09-JUN-81 2450 10

7788 SCOTT ANALYST 7566 09-DEC-82 3000 20

7839 KING PRESIDENT 17-NOV-81 5000 10

7876 ADAMS CLERK 7788 12-JAN-83 1100 20

7900 JAMES CLERK 7698 03-DEC-81 950 30

7902 FORD ANALYST 7566 03-DEC-81 3000 20

7934 MILLER CLERK 7782 23-JAN-82 1300 10

**14. find sum of sal of all employees working in dept no 10**

SQL> select sum(sal) from emp where deptno=10;

SUM(SAL)

----------

8750

**15. find maximum salary,average sal for each job in every department**

SQL> select job, max(sal),floor(avg(sal)) from emp group by job;

JOB MAX(SAL) FLOOR(AVG(SAL))

--------- ---------- ---------------

CLERK 1300 1037

SALESMAN 1600 1400

PRESIDENT 5000 5000

MANAGER 2975 2758

ANALYST 3000 3000

**16. find max salary for every department if deptno is > 15 and arrange data in deptno order.**

SQL> select deptno, max(sal) from emp where deptno>15 group by deptno order by deptno;

DEPTNO MAX(SAL)

---------- ----------

20 3000

30 2850

**17. find sum salary for every department if sum is > 3000**

SQL> select deptno, sum(sal) from emp group by deptno having sum(sal)>3000;

DEPTNO SUM(SAL)

---------- ----------

30 9400

20 10875

10 8750

**18. list all department which has minimum 5 employees**

SQL> select deptno, count(\*) from emp group by deptno having count(\*)>5;

DEPTNO COUNT(\*)

---------- ----------

30 6

**19. count how many employees earn salary more than 2000 in each job**

SQL> select job, count(\*) from emp where sal>2000 group by job;

JOB COUNT(\*)

--------- ----------

PRESIDENT 1

MANAGER 3

ANALYST 2

**20. list all enames and jobs in small case letter**

SQL> select lower(ename), lower(job) from emp;

LOWER(ENAM LOWER(JOB

---------- ---------

smith clerk

allen salesman

ward salesman

jones manager

martin salesman

blake manager

clark manager

scott analyst

king president

turner salesman

adams clerk

james clerk

ford analyst

miller clerk

**21. list all names and jobs so that the length of name should be 15 if it is smaller then add spaces to left**

SQL> select lpad(ename, 15, ' '), job from emp;

LPAD(ENAME,15,' JOB

--------------- ---------

SMITH CLERK

ALLEN SALESMAN

WARD SALESMAN

JONES MANAGER

MARTIN SALESMAN

BLAKE MANAGER

CLARK MANAGER

SCOTT ANALYST

KING PRESIDENT

TURNER SALESMAN

ADAMS CLERK

JAMES CLERK

FORD ANALYST

MILLER CLERK

**22. display min sal,max sal, average sal for all employees working under same manager**

SQL> select mgr, max(sal), min(sal), floor(avg(sal)) from emp group by mgr;

MGR MAX(SAL) MIN(SAL) FLOOR(AVG(SAL))

---------- ---------- ---------- ---------------

7839 2975 2450 2758

5000 5000 5000

7782 1300 1300 1300

7698 1600 950 1310

7902 800 800 800

7566 3000 3000 3000

7788 1100 1100 1100

**23. find sum of total earnings(sal+comm), average of sal+comm for all employees who earn sal >2000 and work in either dept no 10 or 20**

SQL> select sum(sal + nvl(comm, 0)), ceil(avg(sal + nvl(comm, 0))) from emp group by deptno having deptno in (10,20);

SUM(SAL+NVL(COMM,0)) CEIL(AVG(SAL+NVL(COMM,0)))

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10875 2175

8750 2917

**24. list all employees who joined in Aug 1980 and salary is >1500 and < 2500**

SQL> select \* from emp where extract(month from hiredate)='8' and extract(year from hiredate)='1980' and sal between 1500 and 2500;

no rows selected

**25. list all employees joined in either aug or may or dec**

SQL> select \* from emp where extract(month from hiredate) in (8,5,12);

EMPNO ENAME JOB MGR HIREDATE SAL COMM DEPTNO

---------- ---------- --------- ---------- --------- ---------- ---------- ----------

7369 SMITH CLERK 7902 17-DEC-80 800 20

7698 BLAKE MANAGER 7839 01-MAY-81 2850 30

7788 SCOTT ANALYST 7566 09-DEC-82 3000 20

7900 JAMES CLERK 7698 03-DEC-81 950 30

7902 FORD ANALYST 7566 03-DEC-81 3000 20

**26. display name and hiredate in dd/mm/yy format for all employees whose job is clerk and they earn some commission.**

SQL> select ename, to\_date(hiredate, 'dd/mm/yyyy') from emp where job='CLERK' and comm is not null;

no rows selected

**27. list empcode,empno,name and job for each employee. (note :empcode is 3 to 5 characters from name and last 2 characters of job)**

SQL> select substr(ename,3,3)||substr(job,-2) as empcode, empno, ename, job from emp;

EMPCO EMPNO ENAME JOB

----- ---------- ---------- ---------

ITHRK 7369 SMITH CLERK

LENAN 7499 ALLEN SALESMAN

RDAN 7521 WARD SALESMAN

NESER 7566 JONES MANAGER

RTIAN 7654 MARTIN SALESMAN

AKEER 7698 BLAKE MANAGER

ARKER 7782 CLARK MANAGER

OTTST 7788 SCOTT ANALYST

NGNT 7839 KING PRESIDENT

RNEAN 7844 TURNER SALESMAN

AMSRK 7876 ADAMS CLERK

MESRK 7900 JAMES CLERK

RDST 7902 FORD ANALYST

LLERK 7934 MILLER CLERK

**28. display thousand separator and $ symbol for commission if it is null then display it as 0 for all employees whose name starts with A and ends with N**

SQL> select ename, to\_char(sal,'$99,999.99'), nvl2(comm,'$','0') from emp where ename like ('A%N');

ENAME TO\_CHAR(SAL N

---------- ----------- -

ALLEN $1,600.00 $

**29. Display empid,name,sal,comm,remark Remark should base on following conditions**

**comm >= 600 "excellent Keep it up"**

**if it < 600 or not null "good"**

**otherwise "Need improvement"**

1 select empno, ename, sal, comm, case

2 when comm >= 600 then 'excellent keep it up'

3 when comm < 600 or comm is not null then 'good'

4 else 'Need improvement' end remark

5\* from emp

SQL> /

EMPNO ENAME SAL COMM REMARK

---------- ---------- ---------- ---------- --------------------

7369 SMITH 800 Need improvement

7499 ALLEN 1600 300 good

7521 WARD 1250 500 good

7566 JONES 2975 Need improvement

7654 MARTIN 1250 1400 excellent keep it up

7698 BLAKE 2850 Need improvement

7782 CLARK 2450 Need improvement

7788 SCOTT 3000 Need improvement

7839 KING 5000 Need improvement

7844 TURNER 1500 0 good

7876 ADAMS 1100 Need improvement

7900 JAMES 950 Need improvement

7902 FORD 3000 Need improvement

7934 MILLER 1300 Need improvement

**30. Display empid, name, deptno and department name by using following conditions.**

**dept 10 then "Hr"**

**if 20 then "Admin"**

**if 30 then "accounts"**

**otherwise purchase**

1 select empno, ename,d.deptno, dname, case

2 when deptno=10 then 'HR'

3 when deptno=20 then 'Admin'

4 when deptno=30 then 'Account'

5 else 'purchase' end remark

6\* from emp e, dept d where e.deptno=d.deptno