

Experiment No. -01

Using the default table of Oracle given above.
Write SQL queries for the following :

(a) List the names and code of all employees.

1(a)>>SELECT ENAME, EMPNO FROM EMP;

(b) List the names, employee code and department code of all clerks.

1(b)>>SELECT ENAME,EMPNO,DEPTNO FROM EMP WHERE
JOB='CLERK';

(c) List the names, employee code and salary of all managers.

1(c)>>SELECT ENAME,EMPNO,SAL FROM EMP WHERE
JOB='MANAGER';

(d) List the names, employee code and hiredate of all analysts.

1(d)>>SELECT ENAME,EMPNO,HIREDATE FROM EMP WHERE
JOB='ANALYST';

(e) List the employees whose salary lies between 2000 and 3000.

1(e)>>SELECT *FROM EMP WHERE SAL BETWEEN 2000 AND
3000;

(f) List the employees whose salary less than 1000.

1(f)>>SELECT *FROM EMP WHERE SAL <1000;

(g) List the employees whose salary greater than 4000.

1(g)>>SELECT *FROM EMP WHERE SAL >4000;

(h) List the employees whose salaries are 800, 1600 or 2450.

1(h)>>SELECT *FROM EMP WHERE SAL=800 OR SAL=1600 OR
SAL=2450;

>>SELECT *FROM EMP WHERE SAL IN (800,1600,2450);

(i) List the names of all employees who are either clerks or salesman or analyst .

1(i)>>SELECT *FROM EMP WHERE JOB='CLERK' OR
JOB='SALESMAN' OR JOB='ANALYST';

(j) List the employee those who are not getting commission.

1(j)>>SELECT *FROM EMP WHERE COMM IS NULL;

(k) List the employee those who are getting commission.

1(k)>>SELECT *FROM EMP WHERE COMM IS NOT NULL;

(l) List the employee name starts with 'F'.

1(l)>>SELECT ENAME FROM EMP WHERE ENAME LIKE 'F%';

Experiment No. -02

a. List the names and job of all employees who have names exactly 5 characters in length.

a. >>SELECT ENAME,JOB FROM EMP WHERE LENGTH(ENAME)=5;

b. List all employees whose names start with 'G' .

b.>>SELECT ENAME,JOB FROM EMP WHERE ENAME LIKE 'G%';

c. List all employees who name ends with 'N'.

c. >>SELECT ENAME,JOB FROM EMP WHERE ENAME LIKE '%N';

d. List the names and job of all employees who have names exactly 5 characters in length and ends with 'S'.

d. >>SELECT ENAME,JOB FROM EMP WHERE LENGTH(ENAME)=5
AND ENAME LIKE '%S';

e. List all employees who have joined between 1/1/81 and 31/12/81.

e. >>SELECT ENAME,HIREDATE FROM EMP
WHERE TO_DATE(HIREDATE,'DD-MM-YY')<'01-JAN-81'
OR
TO_DATE(HIREDATE,'DD-MM-YY')>'31-DEC-81';

f. List all employees whose job does not start with "CL".

f. >>SELECT ENAME,JOB FROM EMP WHERE JOB NOT LIKE 'CL%';

g. List all managers who earn more than Rs. 4000/-.

g. >>SELECT ENAME,SAL FROM EMP WHERE JOB='MANAGER' AND
SAL>4000;

h. List all clerks and salesman who earn more than Rs. 1600/-

h. >>SELECT ENAME,JOB,SAL FROM EMP WHERE SAL >1000 AND
JOB IN ('CLERK','SALESMAN');

i. List the names and salaries of all employees who were joined as manager during 1981.

i. >>SELECT ENAME,SAL,HIREDATE,JOB FROM EMP WHERE
TO_DATE(HIREDATE,'DD-MM-YY')>'01-JAN-81'
AND
TO_DATE(HIREDATE,'DD-MM-YY') <'31-DEC-81' AND
JOB='MANAGER';

SELECT ENAME,HIREDATE FROM EMP
WHERE HIREDATE BETWEEN 1-JAN-81 AND 31-DEC-81
AND JOB='MANAGER';

Experiment No. -03

For the EMP relation, frame the following queries using SQL.

(a) Calculate the average salary of all employees.

A) SELECT AVG(SAL) "AVERAGE SAL" FROM EMP;

(b) Calculate the average salary of all Managers.

B) SELECT AVG(SAL) "AVERAGE SAL" FROM EMP WHERE
JOB='MANAGER';

(c) Calculate the total salary of all employees.

C) SELECT SUM(SAL) "TOTAL SAL" FROM EMP;

(d) Calculate the total salary of all managers.

D) SELECT SUM(SAL) "TOTAL SAL" FROM EMP WHERE JOB='MANAGER';

(e) Find the minimum salaries earned by the employees.

E) SELECT MIN(SAL) "MINIMUM SAL" FROM EMP;

(f) Find the maximum salaries earned by the employees.

F) SELECT MAX(SAL) "MAXIMUM SAL" FROM EMP;

(g) Find the minimum salaries earned by a clerks.

G) SELECT MAX(SAL) "MAXIMUM SAL" FROM EMP WHERE JOB='CLERK';

(h) Find the maximum salaries earned by a salesman.

H) SELECT MAX(SAL) "MAXIMUM SAL" FROM EMP WHERE JOB='SALESMAN';

(i) Find the minimum and maximum and average salaries earned by a employees.

I) SELECT MAX(SAL) "MAXIMUM SAL",MIN(SAL) "MINIMUM SAL",AVG(SAL) "AVERAGE SAL" FROM EMP

(j) Find the minimum and maximum and average salaries earned by a clerks.

J) SELECT MAX(SAL) "MAXIMUM SAL",MIN(SAL) "MINIMUM SAL",AVG(SAL) "AVERAGE SAL" FROM EMP WHERE JOB

(k) List the total number of employees and the average salaries of the different departments.

K) SELECT DEPTNO,COUNT(*), AVG(SAL) "AVERAGE SAL" FROM EMP GROUP BY DEPTNO

(l) Calculate total number of employees.

L)SELECT COUNT(*) "NO OF EMPLOYEES" FROM EMP

(m) Calculate total number of managers.

M) SELECT COUNT(*) "NO OF EMPLOYEES" FROM EMP WHERE JOB='MANAGER'

(n) Calculate the number of employees who are not getting any commission.

N)SELECT COUNT(*) "NO OF EMPLOYEES" FROM EMP WHERE COMM IS NULL

(o) Calculate the number of employees who are getting any commission.

O)SELECT COUNT(*) "NO OF EMPLOYEES" FROM EMP WHERE COMM IS NOT NULL

(p) List the details of all managers in ascending order of joining dates.

P)SELECT * FROM EMP WHERE JOB='MANAGER' ORDER BY HIREDATE

(q) List the average salaries for each different job.

Q) SELECT AVG(SAL) "AVERAGE SALARY" FROM EMP GROUP BY JOB
(r) Display the average salary for each different job.

R) SELECT AVG(SAL) "AVERAGE SALARY" FROM EMP GROUP BY JOB

(s) Display the minimum, maximum, and average salaries for each job group.

S) SELECT JOB, MAX(SAL) "MAXIMUM SAL", MIN(SAL) "MINIMUM SAL", AVG(SAL) "AVERAGE SAL" FROM EMP GROUP BY JOB

(t) Find all departments which have less than 3 employees.

T) SELECT DEPTNO, COUNT(*) "NO OF EMPLOYEE" FROM EMP GROUP BY DEPTNO HAVING COUNT(*) < 4

(u) List the details of the employees in ascending order of department number, and within each department, in descending order of salary.

U) SELECT * FROM EMP ORDER BY DEPTNO, SAL DESC

(v) Display the name, deptno and annual salary of each employee in order salary and deptno

V) SELECT ENAME, DEPTNO, SAL
FROM EMP
ORDER BY DEPTNO

(w) Display the name of employee who earns maximum salary.

W) SELECT ENAME, SAL FROM EMP
WHERE SAL = (SELECT MAX(SAL)
FROM EMP)

(x) Display the name of employee who earns minimum salary.

X)SELECT ENAME,SAL FROM EMP
WHERE SAL=(SELECT MIN(SAL)
FROM EMP)

(y)Display the name of employee who earns maximum salary whose job is salesman.

Y)SELECT ENAME,SAL,JOB FROM EMP
WHERE SAL=(SELECT MAX(SAL)
FROM EMP
WHERE JOB='SALESMAN')

(z)Display the name of employee who earns minimum salary whose job is clerk.

Z)SELECT ENAME,SAL,JOB
FROM EMP WHERE SAL
=(SELECT MIN(SAL)
FROM EMP
WHERE JOB='CLERK')

aa) Display the department number whose average salary is maximum.

AA)SELECT DEPTNO,AVG(SAL) FROM EMP
GROUP BY DEPTNO
HAVING AVG(SAL)=(SELECT MAX(AVG(SAL))
FROM EMP
GROUP BY DEPT NO)

Experiment No. – 04

Using the default table of Oracle, such as Emp and Dept.

(a) List all employee names, dept name and the city, in department name order.

```
A)SELECT ENAME, DNAME ,LOC FROM EMP, DEPT
      WHERE EMP.DEPTNO= DEPT.DEPTNO
      ORDER BY DNAME
```

(b) List all employee name, dept number, dept name and salary.

```
B)SELECT ENAME, DNAME ,DEPT.DEPTNO,SAL
      FROM EMP, DEPT
      WHERE EMP.DEPTNO= DEPT.DEPTNO
```

(c)List all employees working in Dallas in descending order of salary.

```
C) SELECT ENAME ,LOC,SAL
      FROM EMP, DEPT
      WHERE EMP.DEPTNO= DEPT.DEPTNO AND LOC='DALLAS'
      ORDER BY SAL
```

(d) List all employees' name, job, salary and department name for everyone in the company except clerks. Sort the report with respect to job and salary.

```
D)  SELECT ENAME ,JOB,SAL,DNAME
      FROM EMP, DEPT
      WHERE EMP.DEPTNO= DEPT.DEPTNO AND JOB
      NOT LIKE 'CL%'
      ORDER BY SAL,JOB
```

(e) List all employee names who work in the same city as an employee named 'FORD'

```
E)  SELECT ENAME ,LOC FROM EMP, DEPT
      WHERE EMP.DEPTNO= DEPT.DEPTNO
      AND LOC=(SELECT LOC
      FROM EMP,DEPT
      WHERE EMP.DEPTNO= DEPT.DEPTNO
      AND
      ENAME='FORD')
```


(f) Display the name of the dept that has no employee.

```
F)SELECT DNAME FROM DEPT
      WHERE DEPTNO= ANY  (SELECT DEPTNO
                          FROM DEPT
                          MINUS
                          SELECT DEPTNO
                          FROM EMP)
```

Assignment No: -05

(a) List the employees belonging to the department 20.

a) SELECT ENAME FROM EMP WHERE DEPTNO=20

b) List the name and salary of the employees whose salary is more than 1000.

b) SELECT ENAME,SAL FROM EMP WHERE SAL>1000

c) List the employee number and the name of the manager.

c) SELECT ENAME,EMPNO FROM EMP
WHERE JOB='MANAGER'

d) List the names of the clerks working in the department 20.

d) SELECT JOB FROM EMP
WHERE DEPTNO=20

e) List the name of the analysts and salesman.

e) SELECT ENAME,JOB FROM EMP
WHERE JOB IN ('SALESMAN','ANALYST')

- f) List the details of the employees who have joined before the end of September 81.**

```
f)SELECT * FROM EMP
      WHERE TO_DATE(HIREDATE,'DD-MM-YY')
            < '30-SEP-81'
```

- (g) List the names of the employees who are not managers.**

```
g) SELECT ENAME FROM EMP WHERE JOB NOT LIKE 'MANAGER'
```

- h) List the name of the employees whose employee numbers 7369,7521,7839,7934,7788.**

```
h) SELECT ENAME,EMPNO
      FROM EMP
      WHERE EMPNO IN (7369,7521,7839,7934,7788)
```

- i) List the employee details not belonging to the department 10,30 and 40.**

```
i) SELECT *FROM EMP WHERE DEPTNO NOT IN (10,30,40)
```

- j) List the employee names who have joined before 30th June'81 and after December '81.**

```
j) SELECT ENAME
      FROM EMP
      WHERE TO_DATE(HIREDATE,'DD-MM-YY')<'30-JAN-81' OR
            TO_DATE(HIREDATE,'DD-MM-YY')>'31-DEC-81'
```

- k) List the name of the employee and designation (job) of the employee who does not report to anybody (who doesn't have manager).**

```
k) SELECT ENAME,JOB FROM EMP WHERE MGR IS NULL
```

l) List the different jobs (designations) available in the emp table.

l) SELECT DISTINCT JOB FROM EMP

m) List the employees not assigned to any department.

M) SELECT ENAME FROM EMP WHERE DEPTNO IS NULL

n) List the details of the employees whose salary is greater than 2000 and not eligible for commission.

N) SELECT * FROM EMP WHERE SAL>2000 AND COMM IS NULL

o) List the employee names having 'I' as the second character.

O) SELECT ENAME FROM EMP WHERE ENAME LIKE '_I%'

p) List the name, salary and PF amount of all the employees (PF is calculated as 10% of salary).

P) SELECT ENAME,0.1*SAL "PF"
FROM EMP

q) List the employee number, name and salary in ascending order of salary.

Q) SELECT ENAME,EMPNO,SAL
FROM EMP
ORDER BY SAL

r) Lists the employee name and hiredate in descending order of hiredate.

R) SELECT ENAME,HIREDATE

FROM EMP
ORDER BY HIREDATE DESC

- s) List the employee name, salary, PF, HRA, DA and gross salary;order the result in ascending order of gross.HRA is 50% of salary and DA is 30% of salary.**

S) SELECT ENAME,SAL,0.1*SAL "PF",0.5*SAL "HRA",0.3*SAL "DA",SAL+
0.1*SAL+0.5*SAL+0.3*SAL "GROSS"
FROM EMP
ORDER BY JOB

- t) List the department number and the total salary payable in each department. List the jobs and number of employees in each job.The result should be in descending order of the number of employees.**

T) SELECT DEPTNO,SUM(SAL) "TOTAL SAL"
FROM EMP
GROUP BY DEPTNO

SELECT JOB,COUNT(*) "EMPNO"
FROM EMP
GROUP BY JOB
ORDER BY COUNT(*) DESC

- u) List the total salary, maximum, minimum and average salary of the employee's job wise.**

U) SELECT JOB,SUM(SAL) "TOTAL SAL", MAX(SAL) "MAX", MIN(SAL)
"MIN",AVG(SAL) "AVERAGE"
FROM EMP
GROUP BY JOB

- v) List the average salary from each job excluding manager.**

V) SELECT AVG(SAL) "AVERAGE", JOB FROM EMP
GROUP BY JOB
HAVING JOB NOT LIKE 'MANAGER'

w) List the average monthly salary for each job type within department.

```
W)  SELECT AVG(SAL) "MONTHLY", JOB, DEPTNO
      FROM EMP
      GROUP BY DEPTNO, JOB
```

x) List average salary for all departments employing more than five people.

```
X)  SELECT DEPTNO, COUNT(*) "NO OF EMP" , AVG(SAL) "AVERAGE"
      FROM EMP
      GROUP BY DEPTNO
      HAVING COUNT(*) > 5
```

Y) List job of all the employees where maximum salary is greater than or equal to 3000.

```
Y)  SQL> SELECT JOB FROM EMP
      GROUP BY JOB
      HAVING MAX(SAL) >= 3000;
```

Z) List the total salary, maximum and minimum salary and the average salary of employees job wise for department number 20 and display only those rows having average salary greater than 1000.

```
z)  SELECT JOB, SUM(SAL) "TOTAL SAL", MAX(SAL) "MAX", MIN(SAL)
      "MIN", AVG(SAL) "AVERAGE"
      FROM EMP
      WHERE deptno = 20 and
      GROUP BY JOB
      HAVING AVG(SAL) > 1000
```

Assignment No: -6

(a) List the employees earns more than any employee in CHICAGO.

```

A> SELECT ENAME ,SAL
    FROM EMP,DEPT
    WHERE EMP.DEPTNO=DEPT.DEPTNO
    AND
    SAL>(SELECT MAX(SAL)
          FROM EMP,DEPT
          WHERE EMP.DEPTNO=DEPT.DEPTNO
          AND
          LOC='CHICAGO' GROUP BY LOC)

```

SQL> /

ENAME	SAL
JONES	2975
SCOTT	3000
KING	5000
FORD	3000

(b) List the name of the employee who works in the same department as SMITH.

```

B> SELECT ENAME
    FROM EMP
    WHERE DEPTNO=(SELECT DEPTNO
                  FROM EMP
                  WHERE ENAME='SMITH')

```

SQL> /

ENAME
SMITH
JONES
SCOTT
ADAMS
FORD

(c) List the name, employee number ,their manager name and manager number.

```
C> SELECT E1.ENAME,E1.EMPNO,E2.ENAME,E2.MGR
      FROM EMP E1, EMP E2
      WHERE E1.MGR=E2.EMPNO
```

```
SQL> /
```

ENAME	EMPNO	ENAME	MGR
SMITH	7369	FORD	7566
ALLEN	7499	BLAKE	7839
MILLER	7934	CLARK	7839

13 rows selected.

(d) List the name of the employee job is same as 'CLARK'.

```
D> SELECT ENAME,JOB
      FROM EMP
      WHERE JOB=(SELECT JOB
                  FROM EMP
                  WHERE ENAME='CLARK')
```

```
SQL> /
```

ENAME	JOB
JONES	MANAGER
BLAKE	MANAGER
CLARK	MANAGER

(e) List the name of employee whose salary is more than 'TURNER'.

```
E> SELECT ENAME
      FROM EMP
      WHERE SAL>(SELECT SAL
                  FROM EMP
                  WHERE ENAME='TURNER')
```

```
SQL> /
```

ENAME

```
-----  
ALLEN  
.....  
.....  
FORD
```

6 rows selected.

f) List the name of employee who joined after 'ALLEN'.

```
F> SELECT ENAME ,HIREDATE  
      FROM EMP  
      WHERE HIREDATE>(SELECT HIREDATE  
                      FROM EMP  
                      WHERE ENAME='ALLEN')
```

SQL> /

```
ENAME    HIREDATE  
-----  
WARD     22-FEB-81  
.....  
MILLER    23-JAN-82
```

11 rows selected.

g) Display the name of the department whose job is 'SALESMAN'.

```
G> SELECT DISTINCT DNAME ,JOB  
      FROM EMP,DEPT  
      WHERE EMP.DEPTNO=DEPT.DEPTNO  
      AND  
      JOB='SALESMAN'
```

SQL> /

```
DNAME     JOB  
-----  
SALES     SALESMAN
```

Z) Display the name of the department in which 'FORD' works.


```
H> SELECT DNAME ,JOB
      FROM EMP,DEPT
      WHERE EMP.DEPTNO=DEPT.DEPTNO
      AND
      ENAME='FORD'
SQL> /
```

```
DNAME      JOB
-----
RESEARCH    ANALYST
```

AA) Display the name of the department whose salary is maximum.

```
I>  SELECT DNAME
      FROM EMP,DEPT
      WHERE EMP.DEPTNO=DEPT.DEPTNO
      AND
      SAL=(SELECT MAX(SAL)
            FROM EMP)
SQL> /
```

```
DNAME
-----
ACCOUNTING
```

BB) Display the name of the city(location) in which 'SMITH' works.

```
J> SELECT LOC
      FROM EMP,DEPT
      WHERE EMP.DEPTNO=DEPT.DEPTNO
      AND
      ENAME='SMITH'
SQL> /
LOC
-----
DALLAS
```

CC) Display the name of the city in which the manager works.

```
K> SELECT LOC
      FROM EMP,DEPT
      WHERE EMP.DEPTNO=DEPT.DEPTNO
            AND
            JOB='MANAGER'
```

```
SQL> /
LOC
```

```
-----
DALLAS
CHICAGO
NEW YORK
```

(f) Display the grade of the employee named 'MARTIN'.

m)List the employees earns more than every employee in 'DALLAS'.

```
M > SELECT ENAME ,SAL
      FROM EMP,DEPT
      WHERE EMP.DEPTNO=DEPT.DEPTNO
            AND
            SAL>(SELECT MAX(SAL)
                  FROM EMP,DEPT
                  WHERE EMP.DEPTNO=DEPT.DEPTNO
                  AND
                  LOC='DALLAS')
```

```
SQL> /
```

```
ENAME      SAL
-----
KING      5000
```

n) Display the name of the department which has no employee.

```

N> SELECT DISTINCT DNAME
      FROM DEPT
        WHERE DEPTNO=ANY(SELECT DEPTNO
                          FROM DEPT
                          MINUS
                          SELECT DEPTNO
                          FROM EMP)

```

```

SQL> /
DNAME

```

```

-----
OPERATIONS

```

o) List name, employee number and the name, employee number of their managers' manager

p) list the name of the employee who joined in the same year of 'ADAMS'.

```

P> SELECT ENAME
      FROM EMP
        WHERE TO_CHAR(HIREDATE,'YY')=(SELECT
        TO_CHAR(HIREDATE,'YY')
        FROM EMP
        WHERE ENAME='ADAMS')

```

```

SQL> /
ENAME

```

```

-----
SCOTT
ADAMS

```

q) list the name of the employee who joined in the same month of 'BLAKE'.

```
Q> SELECT ENAME FROM EMP WHERE  
TO_CHAR(HIREDATE,'MM')=(SELECT TO_CHAR(HIREDATE,'MM') FROM EMP  
WHERE ENAME='BLAKE')
```

```
SQL> /  
ENAME
```

```
-----  
BLAKE  
ADAMS
```

**r) list the name of the employee who joined in the same year of
'ADAMS'.**

```
R> SELECT ENAME  
FROM EMP  
WHERE TO_CHAR(HIREDATE,'DD')=(SELECT  
TO_CHAR(HIREDATE,'DD')  
FROM EMP  
WHERE ENAME='ADAMS')
```

```
SQL> /
```

```
ENAME  
-----  
ADAMS  
MILLER
```

s) List the name of the department who gets commissions

```
s) SELECT DISTINCT DNAME  
FROM EMP,DEPT  
WHERE EMP.DEPTNO=DEPT.DEPTNO  
AND  
COMM IS NOT NULL
```

```
SQL> /
```

```
DNAME  
-----  
SALES
```