**Question 1:**

SQL> create table emp(ename varchar2(20),dept\_name varchar2(20),designation varchar2(15),salary number(8),date\_of\_join date);

Table created.

SQL> alter session set nls\_date\_format='Month dd,yyyy';

Session altered.

OR

SQL> alter session set nls\_date\_format='FMMonthdd,yyyy';

Session altered.

SQL> insert into emp values('KARAN','ACCOUNTING','DIRECTOR',50000,'NOV 17,2012');

1 row created.

SQL> insert into emp values('FARAH','RESEARCH','ANALYST',30000,'DEC 03,1991');

1 row created.

SQL> insert into emp values('SCINDIA','RESEARCH','ANALYST',30000,'DEC 09,2002');

1 row created.

SQL> insert into emp values('JOY','RESEARCH','MANAGER',29750,'APR 02,2011');

1 row created.

SQL> insert into emp values('BHASKAR','SALES','MANAGER',28500,'MAY 01,1999');

1 row created.

SQL> insert into emp values('CHANDER','ACCOUNTING','MANAGER',24500,'JUN 09,2000');

1 row created.

SQL> insert into emp values('ANIL','SALES','SALESMAN',16000,'FEB 20,1991');

1 row created.

SQL> insert into emp values('TOMAR','SALES','SALESMAN',15000,'SEP 08,2001');

1 row created.

SQL> insert into emp values('MILIND','ACCOUNTING','CLERK',13000,'JAN 23,2002');

1 row created.

SQL> insert into emp values('SAXENA','SALES','SALESMAN',12500,'SEP 28,1999');

1 row created.

SQL> insert into emp values('TOMAR','SALES','SALESMAN',14500,'FEB 22,1997');

1 row created.

SQL> insert into emp values('ANAND','RESEARCH','CLERK',11000,'JAN 12,1993');

1 row created.

SQL> insert into emp values('GEORGE','SALES','CLERK',9500,'DEC 03,1990');

1 row created.

SQL> insert into emp values('SURESH','RESEARCH','CLERK',8000,'DEC 17,1992');

1 row created.

SQL> DESC EMP;

Name Null? Type

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

ENAME VARCHAR2(20)

DEPT\_NAME VARCHAR2(20)

DESIGNATION VARCHAR2(15)

SALARY NUMBER(8)

DATE\_OF\_JOIN DATE

SQL> SELECT \* FROM EMP;

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

KARAN ACCOUNTING DIRECTOR 50000

November 17,2012

FARAH RESEARCH ANALYST 30000

December 3,1991

SCINDIA RESEARCH ANALYST 30000

December 9,2002

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

JOY RESEARCH MANAGER 29750

April 2,2011

BHASKAR SALES MANAGER 28500

May 1,1999

CHANDER ACCOUNTING MANAGER 24500

June 9,2000

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

ANIL SALES SALESMAN 16000

February 20,1991

TOMAR SALES SALESMAN 15000

September 8,2001

MILIND ACCOUNTING CLERK 13000

January 23,2002

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

SAXENA SALES SALESMAN 12500

September 28,1999

TOMAR SALES SALESMAN 14500

February 22,1997

ANAND RESEARCH CLERK 11000

January 12,1993

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

GEORGE SALES CLERK 9500

December 3,1990

SURESH RESEARCH CLERK 8000

December 17,1992

Query 1:

14 rows selected.

SQL> select ename from emp where salary < 20000;

ENAME

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

ANIL

TOMAR

MILIND

SAXENA

TOMAR

ANAND

GEORGE

SURESH

8 rows selected.

Query 2:

SQL> select ename from emp where dept\_name = 'SALES' and designation = 'MANAGER';

ENAME

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

BHASKAR

SQL> select \* from emp where dept\_name = 'SALES' and designation = 'MANAGER';

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

BHASKAR SALES MANAGER 28500

May 1,1999

Query 3:

SQL> select ename from emp where ename like 'S%';

ENAME

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

SCINDIA

SAXENA

SURESH

SQL> select \* from emp where ename like 'S%';

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

SCINDIA RESEARCH ANALYST 30000

December 9,2002

SAXENA SALES SALESMAN 12500

September 28,1999

SURESH RESEARCH CLERK 8000

December 17,1992

Query 4:

SQL> select count(dept\_name) "emps\_work\_in\_research\_dept" from emp where dept\_name='RESEARCH';

emps\_work\_in\_research\_dept

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

5

SQL> select count(ename) "emps\_work\_in\_research\_dept" from emp where dept\_name='RESEARCH';

emps\_work\_in\_research\_dept

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

5

Query 5:

SQL> select \* from emp where date\_of\_join> 'jan 01,2010';

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

KARAN ACCOUNTING DIRECTOR 50000

November 17,2012

JOY RESEARCH MANAGER 29750

April 2,2011

Query 6:

SQL> select count(ename) "emps\_whose\_12500>salary>8000" from emp where salary > 8000 and salary < 12500;

emps\_whose\_12500>salary>8000

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

2

Query 7:

SQL> select ename from emp order by ename;

ENAME

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

ANAND

ANIL

BHASKAR

CHANDER

FARAH

GEORGE

JOY

KARAN

MILIND

SAXENA

SCINDIA

ENAME

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

SURESH

TOMAR

TOMAR

14 rows selected.

Query 8:

SQL> select \* from emp where designation='SALESMAN' and date\_of\_join> 'AUG 01,1990';

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

ANIL SALES SALESMAN 16000

February 20,1991

TOMAR SALES SALESMAN 15000

September 8,2001

SAXENA SALES SALESMAN 12500

September 28,1999

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

TOMAR SALES SALESMAN 14500

February 22,1997

Query 9:

SQL> select \* from emp where designation='CLERK';

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

MILIND ACCOUNTING CLERK 13000

January 23,2002

ANAND RESEARCH CLERK 11000

January 12,1993

GEORGE SALES CLERK 9500

December 3,1990

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

SURESH RESEARCH CLERK 8000

December 17,1992

Query 10:

SQL> select count(ename) "salesman\_in\_sales\_department" from emp where dept\_name='SALES' and designation='SALESMAN';

salesman\_in\_sales\_department

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

4

Query 11:

SQL>select count(ename) “No of employees” from emp;

Query 12:

SQL> select \* from emp where date\_of\_join> 'JAN 01,1997' and date\_of\_join< 'DEC 31,2010';

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

SCINDIA RESEARCH ANALYST 30000

December 9,2002

BHASKAR SALES MANAGER 28500

May 1,1999

CHANDER ACCOUNTING MANAGER 24500

June 9,2000

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

TOMAR SALES SALESMAN 15000

September 8,2001

MILIND ACCOUNTING CLERK 13000

January 23,2002

SAXENA SALES SALESMAN 12500

September 28,1999

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

TOMAR SALES SALESMAN 14500

February 22,1997

7 rows selected.

Query 13:

SQL> select \* from emp order by salary desc;

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

KARAN ACCOUNTING DIRECTOR 50000

November 17,2012

FARAH RESEARCH ANALYST 30000

December 3,1991

SCINDIA RESEARCH ANALYST 30000

December 9,2002

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

JOY RESEARCH MANAGER 29750

April 2,2011

BHASKAR SALES MANAGER 28500

May 1,1999

CHANDER ACCOUNTING MANAGER 24500

June 9,2000

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

ANIL SALES SALESMAN 16000

February 20,1991

TOMAR SALES SALESMAN 15000

September 8,2001

TOMAR SALES SALESMAN 14500

February 22,1997

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

MILIND ACCOUNTING CLERK 13000

January 23,2002

SAXENA SALES SALESMAN 12500

September 28,1999

ANAND RESEARCH CLERK 11000

January 12,1993

ENAME DEPT\_NAME DESIGNATION SALARY

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

DATE\_OF\_JOIN

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

GEORGE SALES CLERK 9500

December 3,1990

SURESH RESEARCH CLERK 8000

December 17,1992

14 rows selected.

SQL> select ename,salary from emp order by salary desc;

ENAME SALARY

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

KARAN 50000

FARAH 30000

SCINDIA 30000

JOY 29750

BHASKAR 28500

CHANDER 24500

ANIL 16000

TOMAR 15000

TOMAR 14500

MILIND 13000

SAXENA 12500

ENAME SALARY

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

ANAND 11000

GEORGE 9500

SURESH 8000

14 rows selected.

SQL> select ename,salary from emp order by salary ;

ENAME SALARY

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

SURESH 8000

GEORGE 9500

ANAND 11000

SAXENA 12500

MILIND 13000

TOMAR 14500

TOMAR 15000

ANIL 16000

CHANDER 24500

BHASKAR 28500

JOY 29750

ENAME SALARY

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

SCINDIA 30000

FARAH 30000

KARAN 50000

14 rows selected.

SQL

**Question 2,3:**

SQL> create table studies (pname varchar2(15),splace varchar2(20),course varchar2(10),ccost number(8));

Table created.

SQL> create table software(pname varchar(15),title varchar2(20),devin varchar2(15),scost number(8,2),dcost number(8,2),sold number(8));

Table created.

SQL> create table programmer(pname varchar2(15),dob date,doj date,sex char,prof1 varchar2(15),prof2 varchar2(15),sal number(8,2));

Table created.

SQL> insert into studies values('Arvind','Pentafour','PGDCA',14000);

1 row created.

SQL> insert into studies values('Gujjar','Pragathi','MCA',10000);

1 row created.

SQL> insert into studies values('Sonu kumar','Jamia','MCA',20000);

1 row created.

SQL> insert into studies values('Rakesh','IP','M.SC.',15000);

1 row created.

SQL> insert into studies values('Deepak','IP','B.SC.',25000);

1 row created.

SQL> insert into studies values('Krish','Pragathi','BCA',50000);

1 row created.

SQL>insert into software values('Arvind','E-commerce','Pascal',5500,150000,15);

1 row created.

SQL>insert into software values('Arvind','E-catering','C++',5800,100000,10);

1 row created.

SQL>insert into software values('Gujjar','Gas agency','C',2000,500000,5500);

1 row created.

SQL>insert into software values('Rakesh','E-commerce','C',3500,60000,6000);

1 row created.

SQL>insert into software values('Jyoti','Marketing','Oracle',10000,150000,12000);

1 row created.

SQL> insert into software values('Meera','Marketing','VB',500,65000,1000);

1 row created.

SQL>insert into software values('Meera','Marketing','C++',600,50000,2000);

1 row created.

SQL>insert into software values('Sonu kumar','Marketing','C',15000,100000,38);

1 row created.

SQL> insert into studies values('Jyoti','IP','BCA',50000);

1 row created.

SQL> insert into studies values('Meera','DU','MCA',20000);

1 row created.

SQL> insert into programmer values('Arvind','mar 01,1992','feb 02,2010','M','C++','Pascal',60000);

1 row created.

SQL> insert into programmer values('Gujjar','apr 01,1990','feb 02,2011','M','C++','Oracle',80000);

1 row created.

SQL> insert into programmer values('Deepak','apr 01,1985','jun 02,2006','M','C','VB',55000);

1 row created.

SQL> insert into programmer values('Sonukumar','mar 01,1986','jun 02,2006','M','C','Pascal',90000);

1 row created.

SQL> insert into programmer values('Rakesh','jul 01,1982','jun 02,2002','M','C++','Java',30000);

1 row created.

SQL> insert into programmer values('Krish','jul 01,1994','jun 02,2013','M','C++','C',15000);

1 row created.

SQL> insert into programmer values('Jyoti','dec 2,1995','jun 02,2018','F','Oracle','Pascal',60000);

1 row created.

SQL> insert into programmer values('Meera','nov 25,1996','jun 02,2019','F','Oracle','VB',70000);

1 row created.

SQL>

SQL> select \* from studies;

PNAME SPLACE COURSE CCOST

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

ArvindPentafour PGDCA 14000

GujjarPragathi MCA 10000

SonukumarJamia MCA 20000

Rakesh IP M.SC. 15000

Deepak IP B.SC. 25000

KrishPragathi BCA 50000

Jyoti IP BCA 50000

Meera DU MCA 20000

8 rows selected.

SQL> select \* from software;

PNAME TITLE DEVIN SCOST DCOST

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

SOLD

----------

Arvind E-commerce Pascal 5500 150000

15

Arvind E-catering C++ 5800 100000

10

Gujjar Gas agency C 2000 500000

5500

PNAME TITLE DEVIN SCOST DCOST

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

SOLD

----------

Rakesh E-commerce C 3500 60000

6000

Jyoti Marketing Oracle 10000 150000

12000

Meera Marketing VB 500 65000

1000

PNAME TITLE DEVIN SCOST DCOST

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

SOLD

----------

Meera Marketing C++ 600 50000

2000

Sonukumar Marketing C 15000 100000

38

8 rows selected.

SQL> select \* from programmer;

PNAME DOB DOJ S PROF1 PROF2 SAL

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

Arvind 01-MAR-92 02-FEB-10 M C++ Pascal 60000

Gujjar 01-APR-90 02-FEB-11 M C++ Oracle 80000

Deepak 01-APR-85 02-JUN-06 M C VB 55000

Sonukumar 01-MAR-86 02-JUN-06 M C Pascal 90000

Rakesh 01-JUL-82 02-JUN-02 M C++ Java 30000

Krish 01-JUL-94 02-JUN-13 M C++ C 15000

Jyoti 02-DEC-95 02-JUN-18 F Oracle Pascal 60000

Meera 25-NOV-96 02-JUN-19 F Oracle VB 70000

8 rows selected.

Query 1:

SQL> select avg(scost) "selling\_cost\_average(Oracle)" from software where devin = 'Oracle';

selling\_cost\_average(Oracle)

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

10000

Query 2:

SQL> select pname,floor((sysdate - dob)/365.25) "Age(yr)" ,floor((sysdate - doj)/365.25) "Experience(yr)" from programmer;

PNAME Age(yr) Experience(yr)

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

Arvind 27 9

Gujjar 29 8

Deepak 34 13

Sonukumar 33 13

Rakesh 37 17

Krish 25 6

Jyoti 23 1

Meera 22 0

8 rows selected.

Query 3:

SQL> select pname from studies where course = 'PGDCA';

PNAME

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

Arvind

Query 4:

SQL> select max(sold) "Higheset\_sold\_packages" from software;

Higheset\_sold\_packages

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

12000

Query 5:

SQL> select pname,dob from programmer where extract(Month from dob) = 4;

PNAME DOB

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

Gujjar 01-04-1990

Deepak 01-04-1985

Query 6:

SQL> select min(ccost) "Lowest\_course\_fee" from studies;

Lowest\_course\_fee

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

10000

Query 7:

SQL> select count(pname) "NOofProgrammers\_done\_DCA" from studies where course= 'DCA';

NOofProgrammers\_done\_DCA

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

0

SQL> select count(pname) "NOofProgrammers\_done\_DCA" from studies where course= 'MCA';

NOofProgrammers\_done\_DCA

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

3

Query 8:

SQL> select sum((scost\*sold)-dcost) "Revenue\_earned\_packagesinC" from software where devin = 'C';

Revenue\_earned\_packagesinC

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

31910000

Query 9:

SQL> select \* from software where pname = 'Rakesh';

PNAME TITLE DEVIN SCOST DCOST

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

SOLD

----------

Rakesh E-commerce C 3500 60000

6000

Query 10:

SQL> select count(pname) "No\_of\_prog\_std\_at\_pentafour" from studies where splace = 'Pentafour';

No\_of\_prog\_std\_at\_pentafour

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

1

Query 11:

SQL> select \* from software where sold > 5000;

PNAME TITLE DEVIN SCOST DCOST

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

SOLD

----------

Gujjar Gas agency C 2000 500000

5500

Rakesh E-commerce C 3500 60000

6000

Jyoti Marketing Oracle 10000 150000

12000

Query 12:

SQL> select ceil(dcost/scost) "copies\_to\_sell\_to\_recover", sold,title,devin from software;

copies\_to\_sell\_to\_recover SOLD TITLE DEVIN

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

28 15 E-commerce Pascal

18 10 E-catering C++

250 5500 Gas agency C

18 6000 E-commerce C

15 12000 Marketing Oracle

130 1000 Marketing VB

84 2000 Marketing C++

7 38 Marketing C

8 rows selected.

Query1 3:

SQL> select \* from software where ceil(dcost/scost)-sold <= 0;

PNAME TITLE DEVIN SCOST DCOST

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

SOLD

----------

Gujjar Gas agency C 2000 500000

5500

Rakesh E-commerce C 3500 60000

6000

Jyoti Marketing Oracle 10000 150000

12000

PNAME TITLE DEVIN SCOST DCOST

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

SOLD

----------

Meera Marketing VB 500 65000

1000

Meera Marketing C++ 600 50000

2000

Sonukumar Marketing C 15000 100000

38

6 rows selected.

Query 14:

SQL> select max(scost) "costliest\_soft\_in\_VB(price)" from software where devin = 'VB';

costliest\_soft\_in\_VB(price)

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

500

Query 15:

SQL> select count(title) "packgs\_devin\_oracle" from software where devin = 'Oracle';

packgs\_devin\_oracle

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

1

Query 16:

SQL> select count(pname) "progmrs\_std\_at\_pragathi" from studies where splace = 'Pragathi';

progmrs\_std\_at\_pragathi

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

2

Query 17:

SQL> select count(pname) "prgms\_paid\_10000to15000" from studies where ccost>= 10000 and ccost<= 15000;

prgms\_paid\_10000to15000

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

3

Query 18:

SQL> select course,avg(ccost) "average\_course\_fee" from studies group by course;

COURSE average\_course\_fee

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

PGDCA 14000

B.SC. 25000

BCA 50000

M.SC. 15000

MCA 16666.6667

SQL> select avg(ccost) "average\_course\_fee" from studies;

average\_course\_fee

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

25500

Query 19:

SQL> select \* from programmer where prof1 = 'C' or prof2 = 'C';

PNAME DOB DOJ S PROF1 PROF2 SAL

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

Deepak 01-APR-85 02-JUN-06 M C VB 55000

Sonukumar 01-MAR-86 02-JUN-06 M C Pascal 90000

Krish 01-JUL-94 02-JUN-13 M C++ C 15000

Query 20:

SQL> select count(pname) "progmrs\_knowing\_c/pascal" from programmer where prof1 = 'C' or prof2= 'C' or prof1='Pascal' or prof2 = 'Pascal';

progmrs\_knowing\_c/pascal

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

5

Query 21:

SQL> select count(pname) "progmrs\_don't\_know\_C/C++" from programmer where (prof1 != 'C' and prof1 != 'C++') and (prof2 != 'C++' and prof2 != 'C');

progmrs\_don't\_know\_C/C++

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

2

Query 22:

SQL> select max(floor((sysdate - dob)/365.25)) "oldest\_male\_programmer\_age" from programmer where sex = 'M';

oldest\_male\_programmer\_age

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

37

SQL> select floor(max(((sysdate - dob)/365.25))) "oldest\_male\_programmer\_age" from programmer where sex = 'M';

oldest\_male\_programmer\_age

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

37

Query 23:

SQL> select floor(avg((sysdate-dob)/365.25)) "avg\_age\_of\_female\_prgmrs" from programmer where sex = 'F';

avg\_age\_of\_female\_prgmrs

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

23

Query 24:

SQL> select pname, floor((sysdate - doj)/365.25) "Experience(yr)" from programmer order by floor((sysdate - doj)/365.25) desc;

PNAME Experience(yr)

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

Rakesh 17

Sonukumar 13

Deepak 13

Arvind 9

Gujjar 8

Krish 6

Jyoti 1

Meera 0

8 rows selected.

Query 25:

SQL> update programmer set dob='01-aug-82' where pname='Rakesh';

1 row updated.

SQL> update programmer set dob='01-aug-94' where pname='Krish';

1 row updated.

SQL> select \* from programmer;

PNAME DOB DOJ S PROF1 PROF2 SAL

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

Arvind 01-MAR-92 02-FEB-10 M C++ Pascal 60000

Gujjar 01-APR-90 02-FEB-11 M C++ Oracle 80000

Deepak 01-APR-85 02-JUN-06 M C VB 55000

Sonukumar 01-MAR-86 02-JUN-06 M C Pascal 90000

Rakesh 01-AUG-82 02-JUN-02 M C++ Java 30000

Krish 01-AUG-94 02-JUN-13 M C++ C 15000

Jyoti 02-DEC-95 02-JUN-18 F Oracle Pascal 60000

Meera 25-NOV-96 02-JUN-19 F Oracle VB 70000

8 rows selected.

SQL> select pname from programmer where to\_char(sysdate,'mm') = to\_char(dob,'mm');

PNAME

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

Rakesh

Krish

SQL> select pname from programmer where extract(month from sysdate) = extract(month from dob);

PNAME

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

Rakesh

Krish

Query 26:

SQL> select count(pname) "No\_of\_female\_progmrs" from programmer where sex='F';

No\_of\_female\_progmrs

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

2

Query 27:

SQL> select prof1 "languages" from programmer where sex = 'M' group by prof1 union select prof2 "languages" from programmer where sex = 'M' group by prof2 ;

languages

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

C

C++

Java

Oracle

Pascal

VB

6 rows selected.

Query 28:

SQL> select avg(sal) "average\_salary" from programmer;

average\_salary

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

57500

Query 29:

SQL> select count(pname) "people\_draw\_5000to7500" from software where scost>= 5000 and scost<= 7500;

people\_draw\_5000to7500

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

2

Query 30:

SQL> select \* from programmer where (prof1 != 'C' and prof1 != 'C++' and prof1 != 'Pascal') and (prof2 != 'C' and prof2 != 'C++' and prof2 != 'Pascal');

PNAME DOB DOJ S PROF1 PROF2 SAL

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

Meera 25-NOV-96 02-JUN-19 F Oracle VB 70000

SQL>

Query 31:

SQL> select pname,max(scost) "costliest\_package" from software group by pname;

PNAME costliest\_package

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

Gujjar 2000

Rakesh 3500

Meera 600

Jyoti 10000

Sonukumar 15000

Arvind 5800

Query 32

SQL> select concat(concat(concat(concat('Mr. ',pname),' - has '),floor((sysdate-doj)/365.25)),' years of experience') "Programmer" from programmer where sex = 'M';

Programmer

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

Mr. Arvind - has 9 years of experience

Mr. Gujjar - has 8 years of experience

Mr. Deepak - has 13 years of experience

Mr. Sonu kumar - has 13 years of experience

Mr. Rakesh - has 17 years of experience

Mr. Krish - has 6 years of experience

6 rows selected.

SQL>:

SQL> select 'Mr. '||pname||'- has '||floor((sysdate-doj)/365.25)||' years of experience' "Programmer" from programmer where sex = 'M';

Programmer

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

Mr. Arvind- has 9 years of experience

Mr. Gujjar- has 8 years of experience

Mr. Deepak- has 13 years of experience

Mr. Sonu kumar- has 13 years of experience

Mr. Rakesh- has 17 years of experience

Mr. Krish- has 6 years of experience

6 rows selected.

**Question 4:**

**SQL> create table dept2 (deptno number(2) primary key NOT NULL,dname varchar2(14),loc varchar2(13));**

**Table created.**

**SQL> create table emp2( empno number(4) NOT NULL primary key,ename varchar2(10),job varchar2(9),mgr number(4),hiredate date,sal number(7,2),comm number(7,2),deptno number(2));**

**Table created.**

SQL> alter table emp2 add constraint fk\_dept2 foreign key(deptno) references dept2(deptno);

Table altered.

SQL> insert into dept2 values(10,'Sales','Delhi');

1 row created.

SQL> insert into dept2 values(20,'Research','Noida');

1 row created.

SQL> insert into dept2 values(30,'Accounting','Noida');

1 row created.

SQL> insert into dept2 values(40,'Operations','Gurgoan');

1 row created.

SQL> insert into dept2 values(50,'Communication','Delhi');

1 row created.

SQL> insert into dept2 values(60,'Network','New delhi');

1 row created.

SQL> select \* from dept2;

DEPTNO DNAME LOC

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

10 Sales Delhi

20 Research Noida

30 Accounting Noida

40 Operations Gurgoan

50 Communication Delhi

60 Network New delhi

6 rows selected.

SQL> insert into emp2(empno,ename,job,hiredate,sal,deptno) values(1001,'Pratap','President','12-apr-1990',50000,30);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,deptno) values(1002,'Sonu singh','Manager','12-jun-1990',1001,28000,20);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,deptno) values(1010,'Prakash','Manager','10-jun-1995',1001,30000,10);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,deptno) values(1003,'Prabhu','Manager','10-jul-1994',1001,20000,40);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,deptno) values(1006,'Uttam','Manager','10-jul-1993',1001,23000,50);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,deptno) values(2006,'Joy','Analyst','5-mar-1992',1002,42000,20);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,deptno) values(2007,'Utkarsh','Analyst','6-mar-1993',1002,38000,20);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,deptno) values(2009,'Bajrang','Analyst','10-aug-1994',1002,22000,20);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,comm,deptno) values(3001,'Manoj','Salesman','6-mar-1992',1010,15000,2000,10);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,comm,deptno) values(3002,'Saroj','Salesman','15-dec-1992',1010,14000,1500,10);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,comm,deptno) values(3003,'Sumit','Salesman','13-dec-1994',1010,25000,0,10);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,comm,deptno) values(3004,'Sanjay','Salesman','13-jan-1995',1010,24000,0,10);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,comm,deptno) values(3005,'Sumita','Salesman','25-feb-2002',1010,26000,2000,10);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,deptno) values(4001,'Pankaj','Clerk','25-apr-1990',1010,6000,10);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,deptno) values(4002,'Geeta','Clerk','26-apr-1991',3003,6000,10);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,deptno) values(4003,'Gautam','Clerk','20-apr-1992',1002,10000,20);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,deptno) values(4005,'Himtesh','Clerk','11-aug-1994',1003,9000,40);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,deptno) values(4004,'Israr','Clerk','20-aug-1994',1006,9000,50);

1 row created.

SQL> select \* from emp2;

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

1001 Pratap President 12-APR-90 50000

30

1002 Sonu singh Manager 1001 12-JUN-90 28000

20

1010 Prakash Manager 1001 10-JUN-95 30000

10

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

1003 Prabhu Manager 1001 10-JUL-94 20000

40

1006 Uttam Manager 1001 10-JUL-93 23000

50

2006 Joy Analyst 1002 05-MAR-92 42000

20

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

2007 Utkarsh Analyst 1002 06-MAR-93 38000

20

2009 Bajrang Analyst 1002 10-AUG-94 22000

20

3001 Manoj Salesman 1010 06-MAR-92 15000 2000

10

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

3002 Saroj Salesman 1010 15-DEC-92 14000 1500

10

3003 Sumit Salesman 1010 13-DEC-94 25000 0

10

3004 Sanjay Salesman 1010 13-JAN-95 24000 0

10

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

3005 Sumita Salesman 1010 25-FEB-02 26000 2000

10

4001 Pankaj Clerk 1010 25-APR-90 6000

10

4002 Geeta Clerk 3003 26-APR-91 6000

10

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

4003 Gautam Clerk 1002 20-APR-92 10000

20

4005 Himtesh Clerk 1003 11-AUG-94 9000

40

4004 Israr Clerk 1006 20-AUG-94 9000

50

18 rows selected.

SQL>

Query 1:

SQL> select ename from emp2 where empno in (select mgr from emp2 group by mgr);

ENAME

----------

Pratap

Sonu singh

Prakash

Prabhu

Uttam

Sumit

6 rows selected.

SQL> select \* from emp2 where empno in (select mgr from emp2 group by mgr);

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

1001 Pratap President 12-APR-1990 50000

30

3003 Sumit Salesman 1010 13-DEC-1994 25000 0

10

1002 Sonu singh Manager 1001 12-JUN-1990 28000

20

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

1010 Prakash Manager 1001 10-JUN-1995 30000

10

1003 Prabhu Manager 1001 10-JUL-1994 20000

40

1006 Uttam Manager 1001 10-JUL-1993 23000

50

6 rows selected.

SQL>

Query 2:

SQL> select \* from emp2 where (select count(deptno) from emp2 where deptno = 10) > 7 and deptno =10;

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

1010 Prakash Manager 1001 10-JUN-1995 30000

10

3001 Manoj Salesman 1010 06-MAR-1992 15000 2000

10

3002 Saroj Salesman 1010 15-DEC-1992 14000 1500

10

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

3003 Sumit Salesman 1010 13-DEC-1994 25000 0

10

3004 Sanjay Salesman 1010 13-JAN-1995 24000 0

10

3005 Sumita Salesman 1010 25-FEB-2002 26000 2000

10

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

4001 Pankaj Clerk 1010 25-APR-1990 6000

10

4002 Geeta Clerk 3003 26-APR-1991 6000

10

8 rows selected.

SQL> select \* from emp2 where (select count(deptno) from emp2 where deptno = 10) > 10 and deptno =10;

no rows selected

SQL>

Query 3:

SQL> select first.ename "employee",second.ename "imm. higher authority" from emp2 first,emp2 second where first.mgr=second.empno;

employee imm. highe

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

Uttam Pratap

Prabhu Pratap

Prakash Pratap

Sonu singh Pratap

Gautam Sonu singh

Bajrang Sonu singh

Utkarsh Sonu singh

Joy Sonu singh

Pankaj Prakash

Sumita Prakash

Sanjay Prakash

employee imm. highe

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

Sumit Prakash

Saroj Prakash

Manoj Prakash

Himtesh Prabhu

Israr Uttam

Geeta Sumit

17 rows selected.

Query 4:

SQL> select ename from emp2 where empno in (select empno from emp2 minus select mgr from emp2);

ENAME

----------

Joy

Utkarsh

Bajrang

Manoj

Saroj

Sanjay

Sumita

Pankaj

Geeta

Gautam

Himtesh

ENAME

----------

Israr

12 rows selected.

SQL> select \* from emp2 where empno in (select empno from emp2 minus select mgr from emp2);

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

2006 Joy Analyst 1002 05-MAR-92 42000

20

2007 Utkarsh Analyst 1002 06-MAR-93 38000

20

2009 Bajrang Analyst 1002 10-AUG-94 22000

20

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

3001 Manoj Salesman 1010 06-MAR-92 15000 2000

10

3002 Saroj Salesman 1010 15-DEC-92 14000 1500

10

3004 Sanjay Salesman 1010 13-JAN-95 24000 0

10

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

3005 Sumita Salesman 1010 25-FEB-02 26000 2000

10

4001 Pankaj Clerk 1010 25-APR-90 6000

10

4002 Geeta Clerk 3003 26-APR-91 6000

10

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

4003 Gautam Clerk 1002 20-APR-92 10000

20

4005 Himtesh Clerk 1003 11-AUG-94 9000

40

4004 Israr Clerk 1006 20-AUG-94 9000

50

12 rows selected.

Query 5:

SQL> select ename,sal,deptno from emp2 where sal > (select min(sal) from emp2 where deptno =20);

ENAME SAL DEPTNO

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

Pratap 50000 30

Sonu singh 28000 20

Prakash 30000 10

Prabhu 20000 40

Uttam 23000 50

Joy 42000 20

Utkarsh 38000 20

Bajrang 22000 20

Manoj 15000 10

Saroj 14000 10

Sumit 25000 10

ENAME SAL DEPTNO

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

Sanjay 24000 10

Sumita 26000 10

13 rows selected.

SQL> select ename,sal,deptno from emp2 where sal> (select min(sal) from emp2 group by deptno having deptno =20);

ENAME SAL DEPTNO

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

Pratap 50000 30

Sonu singh 28000 20

Prakash 30000 10

Prabhu 20000 40

Uttam 23000 50

Joy 42000 20

Utkarsh 38000 20

Bajrang 22000 20

Manoj 15000 10

Saroj 14000 10

Sumit 25000 10

ENAME SAL DEPTNO

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

Sanjay 24000 10

Sumita 26000 10

13 rows selected.

Query 6:

SQL> select \* from emp2 where sal > (select max(sal) from emp2 where job = 'Manager');

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

1001 Pratap President 12-APR-90 50000

30

2006 Joy Analyst 1002 05-MAR-92 42000

20

2007 Utkarsh Analyst 1002 06-MAR-93 38000

20

Query 7:

SQL> select job,max(sal) "Hishest\_salary" from emp2 group by job;

JOB Hishest\_salary

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

Manager 30000

Analyst 42000

Clerk 10000

President 50000

Salesman 26000

SQL>

Query 8:

SQL> select \* from emp2 where hiredate in ( select max(hiredate) from emp2 group by deptno);

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

1001 Pratap President 12-APR-90 50000

30

2009 Bajrang Analyst 1002 10-AUG-94 22000

20

3005 Sumita Salesman 1010 25-FEB-02 26000 2000

10

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

4005 Himtesh Clerk 1003 11-AUG-94 9000

40

4004 Israr Clerk 1006 20-AUG-94 9000

50

SQL> select \* from emp2 where (deptno,hiredate) in ( select deptno,max(hiredate) from emp2 group by deptno);

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

1001 Pratap President 12-APR-90 50000

30

2009 Bajrang Analyst 1002 10-AUG-94 22000

20

4005 Himtesh Clerk 1003 11-AUG-94 9000

40

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

4004 Israr Clerk 1006 20-AUG-94 9000

50

3005 Sumita Salesman 1010 25-FEB-02 26000 2000

10

Query 9:

SQL> select extract(year from hiredate) "Year",count(empno) "NO of employees" from emp2 group by extract(year from hiredate) having count(empno) = (select max(count(empno)) from emp2 group by to\_char(hiredate,'yyyy'));

Year NO of employees

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

1994 5

SQL>

SQL> select count(empno),extract(year from hiredate) from emp2 group by extract(year from hiredate);

COUNT(EMPNO) EXTRACT(YEARFROMHIREDATE)

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

2 1993

3 1990

2 1995

5 1994

4 1992

1 2002

1 1991

7 rows selected.

Query 10:

Nvl (exp1,exp2) //it returns exp2 if col is null

Remuneration bill = compensation or money paid for work or service

So total money paid 12\*monthly(compensation)

Monthly compensation = sal +comm

SQL> select deptno,12\*sum(sal+nvl(comm,0)) "high\_remuneration bill" from emp2 group by deptno having 12\*sum(sal+nvl(comm,0))=(select max(12\*sum(sal+nvl(comm,0))) from emp2 group by deptno);

DEPTNO high\_remuneration bill

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

10 1818000

SQL> SELECT DEPTNO, LPAD(SUM(12\*(SAL+NVL(COMM,0))),15) "COMPENSATION" FROM EMP2 GROUP BY DEPTNO HAVING SUM( 12\*(SAL+NVL(COMM,0))) = (SELECT MAX(SUM(12\*(SAL+NVL(COMM,0)))) FROM EMP2 GROUP BY DEPTNO);

DEPTNO COMPENSATION

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

10 1818000

Query 11:

SQL> select empno,ename,hiredate,to\_char(' ' ) "recent hired" from emp2 where hiredate != (select max(hiredate) from emp2) union select empno,ename,hiredate,to\_char(' \* ') "recent hired" from emp2 where hiredate = (select max(hiredate) from emp2);

EMPNO ENAME HIREDATE recent hired

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

1001 Pratap 12-APR-90

1002 Sonu singh 12-JUN-90

1003 Prabhu 10-JUL-94

1006 Uttam 10-JUL-93

1010 Prakash 10-JUN-95

2006 Joy 05-MAR-92

2007 Utkarsh 06-MAR-93

2009 Bajrang 10-AUG-94

3001 Manoj 06-MAR-92

3002 Saroj 15-DEC-92

3003 Sumit 13-DEC-94

EMPNO ENAME HIREDATE recent hired

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

3004 Sanjay 13-JAN-95

3005 Sumita 25-FEB-02 \*

4001 Pankaj 25-APR-90

4002 Geeta 26-APR-91

4003 Gautam 20-APR-92

4004 Israr 20-AUG-94

4005 Himtesh 11-AUG-94

18 rows selected.

SQL>

SQL> SELECT ENAME, HIREDATE, LPAD('\*',8) "RECENTLY HIRED" FROM EMP2 WHERE HIREDATE = (SELECT MAX(HIREDATE) FROM EMP2) UNION SELECT ENAME NAME, HIREDATE, LPAD(' ',15) "RECENTLY HIRED" FROM EMP2 WHERE HIREDATE != (SELECT MAX(HIREDATE) FROM EMP2);

ENAME HIREDATE RECENTLY HIRED

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

Bajrang 10-AUG-94

Gautam 20-APR-92

Geeta 26-APR-91

Himtesh 11-AUG-94

Israr 20-AUG-94

Joy 05-MAR-92

Manoj 06-MAR-92

Pankaj 25-APR-90

Prabhu 10-JUL-94

Prakash 10-JUN-95

Pratap 12-APR-90

ENAME HIREDATE RECENTLY HIRED

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

Sanjay 13-JAN-95

Saroj 15-DEC-92

Sonu singh 12-JUN-90

Sumit 13-DEC-94

Sumita 25-FEB-02 \*

Utkarsh 06-MAR-93

Uttam 10-JUL-93

18 rows selected.

Query 12:

SQL> select empno,ename,sal,deptno from emp2 E where E.sal > (select avg(sal) from emp2 F where E.deptno = F.deptno);

EMPNO ENAME SAL DEPTNO

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

1010 Prakash 30000 10

1003 Prabhu 20000 40

1006 Uttam 23000 50

2006 Joy 42000 20

2007 Utkarsh 38000 20

3003 Sumit 25000 10

3004 Sanjay 24000 10

3005 Sumita 26000 10

8 rows selected.

SQL> SELECT ENAME,SAL FROM EMP2 E WHERE SAL > (SELECT AVG(SAL) FROM EMP2 F WHERE E.DEPTNO = F.DEPTNO);

ENAME SAL

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

Prakash 30000

Prabhu 20000

Uttam 23000

Joy 42000

Utkarsh 38000

Sumit 25000

Sanjay 24000

Sumita 26000

8 rows selected.

SQL>

Query 13:

SQL> select ename,sal "nth max salary" from (select ename,sal,rownum rnum from (select ename,sal from emp2 order by sal desc)) where rnum = &n;

Enter value for n: 1

old 1: select ename,sal "nth max salary" from (select ename,sal,rownum rnum from (select ename,sal from emp2 order by sal desc)) where rnum = &n

new 1: select ename,sal "nth max salary" from (select ename,sal,rownum rnum from (select ename,sal from emp2 order by sal desc)) where rnum = 1

ENAME nth max salary

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

Pratap 50000

SQL> select ename,sal "nth max salary" from (select ename,sal,rownum rnum from (select ename,sal from emp2 order by sal desc)) where rnum = &n;

Enter value for n: 2

old 1: select ename,sal "nth max salary" from (select ename,sal,rownum rnum from (select ename,sal from emp2 order by sal desc)) where rnum = &n

new 1: select ename,sal "nth max salary" from (select ename,sal,rownum rnum from (select ename,sal from emp2 order by sal desc)) where rnum = 2

ENAME nth max salary

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

Joy 42000

SQL> SELECT ENAME, SAL FROM EMP2 A WHERE &N = (SELECT COUNT (DISTINCT(SAL)) FROM EMP2 B WHERE A.SAL<=B.SAL);

Enter value for n: 2

old 1: SELECT ENAME, SAL FROM EMP2 A WHERE &N = (SELECT COUNT (DISTINCT(SAL)) FROM EMP2 B WHERE A.SAL<=B.SAL)

new 1: SELECT ENAME, SAL FROM EMP2 A WHERE 2 = (SELECT COUNT (DISTINCT(SAL)) FROM EMP2 B WHERE A.SAL<=B.SAL)

ENAME SAL

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

Joy 42000

Query 14:

//inserted same last two rows for duplicacy

SQL> alter table emp2 drop primary key;

Table altered.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,deptno) values(4005,'Himtesh','Clerk','11-aug-1994',1003,9000,40);

1 row created.

SQL> insert into emp2(empno,ename,job,hiredate,mgr,sal,deptno) values(4004,'Israr','Clerk','20-aug-1994',1006,9000,50);

1 row created.

SQL> select \* from emp2 where (empno,hiredate) in (select empno,hiredate from emp2 group by empno,hiredate having count(\*) > 1);

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

4005 Himtesh Clerk 1003 11-AUG-94 9000

40

4005 Himtesh Clerk 1003 11-AUG-94 9000

40

4004 Israr Clerk 1006 20-AUG-94 9000

50

EMPNO ENAME JOB MGR HIREDATE SAL COMM

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

DEPTNO

----------

4004 Israr Clerk 1006 20-AUG-94 9000

50

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

SQL> select empno,ename,sal,deptno,hiredate,count(\*) repeatNo from emp2 group by empno,ename,sal,deptno,hiredate having count(\*)>1;

EMPNO ENAME SAL DEPTNO HIREDATE REPEATNO

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

4005 Himtesh 9000 40 11-AUG-94 2

4004 Israr 9000 50 20-AUG-94 2

//to delete duplicate rows

SQL> delete from emp2 where rowid not in (select max(rowid) from emp2 group by empno,ename,hiredate);

2 rows deleted.

SQL>

Query 15:

SQL> select empno,ename,floor((sysdate-hiredate)/365.25) ||' years and '||floor((mod((sysdate-hiredate),365.25))/30.41)||' months' as "Length of service" from emp2;

EMPNO ENAME

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

Length of service

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

1001 Pratap

29 years and 4 months

1002 Sonu singh

29 years and 2 months

1010 Prakash

24 years and 2 months

EMPNO ENAME

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

Length of service

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

1003 Prabhu

25 years and 1 months

1006 Uttam

26 years and 1 months

2006 Joy

27 years and 5 months

EMPNO ENAME

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

Length of service

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

2007 Utkarsh

26 years and 5 months

2009 Bajrang

25 years and 0 months

3001 Manoj

27 years and 5 months

EMPNO ENAME

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

Length of service

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

3002 Saroj

26 years and 8 months

3003 Sumit

24 years and 8 months

3004 Sanjay

24 years and 7 months

EMPNO ENAME

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

Length of service

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

3005 Sumita

17 years and 5 months

4001 Pankaj

29 years and 3 months

4002 Geeta

28 years and 3 months

EMPNO ENAME

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

Length of service

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

4003 Gautam

27 years and 4 months

4005 Himtesh

25 years and 0 months

4004 Israr

25 years and 0 months

EMPNO ENAME

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

Length of service

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

4005 Himtesh

25 years and 0 months

4004 Israr

25 years and 0 months

20 rows selected.

SQL>

SQL> SELECT ENAME "EMPLOYEE",TO\_CHAR(TRUNC(MONTHS\_BETWEEN(SYSDATE,HIREDATE)/12))||' YEARS '|| TO\_CHAR(TRUNC(MOD(MONTHS\_BETWEEN (SYSDATE, HIREDATE),12)))||' MONTHS ' "LENGTH OF SERVICE" FROM EMP2;

EMPLOYEE

----------

LENGTH OF SERVICE

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

Pratap

29 YEARS 4 MONTHS

Sonu singh

29 YEARS 2 MONTHS

Prakash

24 YEARS 2 MONTHS

EMPLOYEE

----------

LENGTH OF SERVICE

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

Prabhu

25 YEARS 1 MONTHS

Uttam

26 YEARS 1 MONTHS

Joy

27 YEARS 5 MONTHS

EMPLOYEE

----------

LENGTH OF SERVICE

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

Utkarsh

26 YEARS 5 MONTHS

Bajrang

25 YEARS 0 MONTHS

Manoj

27 YEARS 5 MONTHS

EMPLOYEE

----------

LENGTH OF SERVICE

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

Saroj

26 YEARS 8 MONTHS

Sumit

24 YEARS 8 MONTHS

Sanjay

24 YEARS 7 MONTHS

EMPLOYEE

----------

LENGTH OF SERVICE

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

Sumita

17 YEARS 5 MONTHS

Pankaj

29 YEARS 3 MONTHS

Geeta

28 YEARS 3 MONTHS

EMPLOYEE

----------

LENGTH OF SERVICE

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

Gautam

27 YEARS 3 MONTHS

Himtesh

25 YEARS 0 MONTHS

Israr

24 YEARS 11 MONTHS

18 rows selected.

SQL>

**Question 5:**

**SQL> create table salesman (snum number(4) primary key,sname varchar2(15),city varchar2(15),commission\_perc number(3));**

**Table created.**

**SQL> insert into salesman values(1001,'Piyush','London',12);**

**1 row created.**

**SQL> insert into salesman values(1002,'Sejal','Surat',13);**

**1 row created.**

**SQL> insert into salesman values(1004,'Miti','London',11);**

**1 row created.**

**SQL> insert into salesman values(1007,'Rajesh','Baroda',15);**

**1 row created.**

**SQL> insert into salesman values(1003,'Anand','New Delhi',10);**

**1 row created.**

**SQL> select \* from salesman**

**2 ;**

**SNUM SNAME CITY COMMISSION\_PERC**

**---------- --------------- --------------- ---------------**

**1001 Piyush London 12**

**1002 Sejal Surat 13**

**1004 Miti London 11**

**1007 Rajesh Baroda 15**

**1003 Anand New Delhi 10**

**SQL>**

**SQL> create table customers (cnum number(4) primary key,cname varchar2(15),city varchar2(15),rating number(3),snum number(4),foreign key(snum) references salesman(snum));**

**Table created.**

**SQL> insert into customers values(2001,'Harsh','London',100,1005);**

**insert into customers values(2001,'Harsh','London',100,1005)**

**\***

**ERROR at line 1:**

**ORA-02291: integrity constraint (SYSTEM.SYS\_C007059) violated - parent key not**

**found**

**SQL> insert into customers values(2001,'Harsh','London',100,1001);**

**1 row created.**

**SQL> insert into customers values(2002,'Gita','Rome',200,1003);**

**1 row created.**

**SQL> insert into customers values(2003,'Lalit','Surat',200,1002);**

**1 row created.**

**SQL> insert into customers values(2004,'Govind','Bombay',300,1002);**

**1 row created.**

**SQL> insert into customers values(2006,'Chirag','London',100,1001);**

**1 row created.**

**SQL> insert into customers values(2008,'Chinmay','Surat',300,1007);**

**1 row created.**

**SQL> insert into customers values(2007,'Pratik','Rome',100,1004);**

**1 row created.**

**SQL> select \* from customers;**

**CNUM CNAME CITY RATING SNUM**

**---------- --------------- --------------- ---------- ----------**

**2001 Harsh London 100 1001**

**2002 Gita Rome 200 1003**

**2003 Lalit Surat 200 1002**

**2004 Govind Bombay 300 1002**

**2006 Chirag London 100 1001**

**2008 Chinmay Surat 300 1007**

**2007 Pratik Rome 100 1004**

**7 rows selected.**

**SQL>**

**SQL> create table orders (onum number(4) primary key,amount number(7,2),odate date,cnum number(4), foreign key(cnum) references customers(cnum),snum number(4), foreign key(snum) references salesman(snum));**

**Table created.**

**SQL> alter session set nls\_date\_format = 'mm/dd/yyyy';**

**Session altered.**

**SQL> insert into orders values(3001,18.69,'10/03/1997',2008,1007);**

**1 row created.**

**SQL> insert into orders values(3003,767.19,'10/03/1997',2001,1001);**

**1 row created.**

**SQL> insert into orders values(3005,5160.45,'10/03/1997',2003,1002);**

**1 row created.**

**SQL> insert into orders values(3006,1098.16,'10/03/1997',2008,1007);**

**1 row created.**

**SQL> insert into orders values(3009,1713.23,'10/04/1997',2002,1003);**

**1 row created.**

**SQL> insert into orders values(3007,75.75,'10/04/1997',2004,1002);**

**1 row created.**

**SQL> insert into orders values(3008,4723.00,'10/05/1997',2006,1001);**

**1 row created.**

**SQL> insert into orders values(3010,1309.95,'10/06/1997',2004,1002);**

**1 row created.**

**SQL> insert into orders values(3011,9891.88,'10/06/1997',2006,1001);**

**1 row created.**

**SQL> select \* from orders;**

**ONUM AMOUNT ODATE CNUM SNUM**

**---------- ---------- ---------- ---------- ----------**

**3001 18.69 10/03/1997 2008 1007**

**3003 767.19 10/03/1997 2001 1001**

**3005 5160.45 10/03/1997 2003 1002**

**3006 1098.16 10/03/1997 2008 1007**

**3009 1713.23 10/04/1997 2002 1003**

**3007 75.75 10/04/1997 2004 1002**

**3008 4723 10/05/1997 2006 1001**

**3010 1309.95 10/06/1997 2004 1002**

**3011 9891.88 10/06/1997 2006 1001**

**9 rows selected.**

**SQL> alter session set nls\_date\_format = 'dd-MON-yyyy';**

**Session altered.**

**SQL> select \* from orders;**

**ONUM AMOUNT ODATE CNUM SNUM**

**---------- ---------- ----------- ---------- ----------**

**3001 18.69 03-OCT-1997 2008 1007**

**3003 767.19 03-OCT-1997 2001 1001**

**3005 5160.45 03-OCT-1997 2003 1002**

**3006 1098.16 03-OCT-1997 2008 1007**

**3009 1713.23 04-OCT-1997 2002 1003**

**3007 75.75 04-OCT-1997 2004 1002**

**3008 4723 05-OCT-1997 2006 1001**

**3010 1309.95 06-OCT-1997 2004 1002**

**3011 9891.88 06-OCT-1997 2006 1001**

**9 rows selected.**

**SQL>**

**Query 1:**

**SQL> select snum,max(amount) "largest\_orders" from orders group by snum having snum=1002 or snum=1007;**

**SNUM largest\_orders**

**---------- --------------**

**1002 5160.45**

**1007 1098.16**

**SQL> select onum,amount "largest\_orders",odate,cnum,snum from orders where amount in (select max(amount) from orders group by snum having snum=1002 or snum=1007);**

**ONUM largest\_orders ODATE CNUM SNUM**

**---------- -------------- ----------- ---------- ----------**

**3005 5160.45 03-OCT-1997 2003 1002**

**3006 1098.16 03-OCT-1997 2008 1007**

**SQL>**

**SQL> select \* from orders where (snum,amount) in (select snum,max(amount) "largest\_orders" from orders group by snum having snum=1002 or snum=1007);**

**ONUM AMOUNT ODATE CNUM SNUM**

**---------- ---------- ----------- ---------- ----------**

**3005 5160.45 03-OCT-1997 2003 1002**

**3006 1098.16 03-OCT-1997 2008 1007**

**SQL> select onum,amount "largest\_orders",odate,cnum,snum from orders where (snum,amount) in (select snum,max(amount) "largest\_orders" from orders group by snum having snum=1002 or snum=1007);**

**ONUM largest\_orders ODATE CNUM SNUM**

**---------- -------------- ----------- ---------- ----------**

**3005 5160.45 03-OCT-1997 2003 1002**

**3006 1098.16 03-OCT-1997 2008 1007**

**SQL>**

**Query 2:**

**SQL> select count(onum) "orders\_of\_3oct97" from orders where odate= '3-oct-1997';**

**orders\_of\_3oct97**

**----------------**

**4**

**Query 3:**

**SQL> select sum(amount) "Toal\_amt\_ordered" from orders;**

**Toal\_amt\_ordered**

**----------------**

**24758.3**

**Query 4:**

**SQL> select avg(amount) "average\_amt\_ordered" from orders;**

**average\_amt\_ordered**

**-------------------**

**2750.92222**

**Query 5:**

**SQL> select count(count(snum)) "NO\_of\_SM\_having\_order" from orders group by snum;**

**NO\_of\_SM\_having\_order**

**---------------------**

**4**

**Query 6:**

**SQL> select \* from orders where amount in (select max(amount) from orders group by snum,odate);**

**ONUM AMOUNT ODATE CNUM SNUM**

**---------- ---------- --------- ---------- ----------**

**3003 767.19 03-OCT-97 2001 1001**

**3005 5160.45 03-OCT-97 2003 1002**

**3006 1098.16 03-OCT-97 2008 1007**

**3009 1713.23 04-OCT-97 2002 1003**

**3007 75.75 04-OCT-97 2004 1002**

**3008 4723 05-OCT-97 2006 1001**

**3010 1309.95 06-OCT-97 2004 1002**

**3011 9891.88 06-OCT-97 2006 1001**

**8 rows selected.**

**Query 7:**

**SQL> select onum,amount "largest\_order",odate,cnum,snum from orders where amount in (select max(amount) from orders where odate = '3-oct-1997' group by snum);**

**ONUM largest\_order ODATE CNUM SNUM**

**---------- ------------- --------- ---------- ----------**

**3003 767.19 03-OCT-97 2001 1001**

**3005 5160.45 03-OCT-97 2003 1002**

**3006 1098.16 03-OCT-97 2008 1007**

**Query 8:**

**SQL> select count(distinct city) "different not null cities" from customers;**

**different not null cities**

**-------------------------**

**4**

**SQL> select count(all city) from customers;**

**COUNT(ALLCITY)**

**--------------**

**7**

**Query 9:**

**SQL> select onum,amount "smallest order" ,odate,cnum,snum from orders where amount in (select min(amount) from orders group by cnum);**

**ONUM smallest order ODATE CNUM SNUM**

**---------- -------------- --------- ---------- ----------**

**3001 18.69 03-OCT-97 2008 1007**

**3003 767.19 03-OCT-97 2001 1001**

**3005 5160.45 03-OCT-97 2003 1002**

**3009 1713.23 04-OCT-97 2002 1003**

**3007 75.75 04-OCT-97 2004 1002**

**3008 4723 05-OCT-97 2006 1001**

**6 rows selected.**

**SQL>**

**Query 10:**

**SQL> select \* from (select \* from customers where cname like 'G%' order by cname) where rownum = 1;**

**CNUM CNAME CITY RATING SNUM**

**---------- --------------- --------------- ---------- ----------**

**2002 Gita Rome 200 1003**

**SQL> select min(cname) from customers where cname like 'G%';**

**MIN(CNAME)**

**---------------**

**Gita**

**SQL> select max(cname) from customers where cname like 'G%';**

**MAX(CNAME)**

**---------------**

**Govind**

**SQL>**

**Query 11:**

**SQL> select odate "date",count(distinct(snum)) "no of salesman" from orders group by odate;**

**date no of salesman**

**--------- --------------**

**04-OCT-97 2**

**06-OCT-97 2**

**05-OCT-97 1**

**03-OCT-97 3**

**SQL> select odate "date",count(distinct(snum)) "no of salesman" from orders group by odate order by odate;**

**date no of salesman**

**--------- --------------**

**03-OCT-97 3**

**04-OCT-97 2**

**05-OCT-97 1**

**06-OCT-97 2**

**To see all tables present in database**

**-select owner,table\_name from all\_tables;**