

SHARMILA S

SQL QUERIES

QUERIES – I

1) Find out the SELLING COST AVERAGE for the packages developed in PASCAL?

```
SELECT AVG (SCOST) FROM SOFTWARE WHERE DEV_IN LIKE 'PASCAL';
```

2) Display the names and ages of all programmers.

```
SELECT NAME AS NAME, FLOOR((SYSDATE-DOB)/365) AS AGE FROM  
PROGRAMMER;
```

3) Display all the programmers whose name end with H?

```
SELECT NAME FROM PROGRAMMER WHERE NAME LIKE '%H';
```

4) What is the highest numbers of copies sold by a package?

```
SELECT MAX(SOLD) FROM SOFTWARE;
```

5) Display the names and date of birth of all the programmer born in JANUARY.

```
SELECT DOB, NAME FROM PROGRAMMER WHERE TO_CHAR(DOB,'MON') LIKE  
'JAN';
```

6) Display lowest course fee.

```
SELECT MIN (CCOST) FROM STUDIES;
```

7) How many programmer has done PGDCA course.

```
SELECT COUNT (NAME) FROM STUDIES WHERE COURSE LIKE 'PGDCA';
```

8) How much revenue has been earned through sales of packages in C.

```
SELECT SUM (SOLD*SCOST) FROM SOFTWARE WHERE DEV_IN LIKE 'C';
```

9) Display the details of software developed by Ramesh?

```
SELECT * FROM SOFTWARE WHERE NAME='RAMESH';
```

10) How many programmers studied at SABHARI.

```
SELECT COUNT (NAME) AS NOPROGRAMMERS FROM STUDIES WHERE  
SPLACE='SABHARI';
```

11) Display the details of PACKAGES whose sales crossed the 20000 mark.

```
SELECT * FROM SOFTWARE WHERE (SOLD*SCOST)>20000;
```

12) Find out the number of copies which should be sold in order to recover the development cost of each package.

SELECT ROUND (DCOST/SCOST) FROM SOFTWARE WHERE
SCOST*SOLD<DCOST;

13) What is the price of the costliest software developed in BASIC?
SELECT MAX (SCOST) FROM SOFTWARE WHERE DEV_IN LIKE 'BASIC';

14) Display the details of packages for which development cost has been recovered.
SELECT * FROM SOFTWARE WHERE (SOLD*SCOST)>DCOST;

15) How many packages were developed in dbase?
SELECT COUNT (TITLE) AS TOTAL FROM SOFTWARE WHERE DEV_IN='DBASE';

16) How many programmers studies at paragathi?
SELECT COUNT (NAME) FROM STUDIES WHERE SPLACE='PRAGATHI';

17) How many programmers paid 5000 to 10000 for their course?
SELECT COUNT (NAME) AS NO_OF_PROGRAMMERS FROM STUDIES WHERE
CCOST>=5000 AND CCOST<=10000;

18) What is the average course fee?
SELECT AVG (CCOST) AS AVERAGECOST FROM STUDIES;

19) Display the details of programmers knowing c?
SELECT * FROM PROGRAMMER WHERE PROF1='C' OR PROF2='C';

20) How many programmers know either Cobol or Pascal?
SELECT COUNT (NAME) AS PROGRAMMERS FROM PROGRAMMER WHERE
PROF1 IN ('COBOL' ,'PASCAL') OR PROF2 IN ('COBOL' ,'PASCAL');

21) How many programmers don't know Pascal & C?
SELECT COUNT (NAME) AS PROGRAMMERS FROM PROGRAMMER WHERE
PROF1 NOT IN ('C','PASCAL')
AND PROF2 NOT IN ('C','PASCAL');

22) How old is the oldest male programmers?
SELECT MAX (FLOOR((SYSDATE - DOB)/365)) FROM PROGRAMMER WHERE SEX
= 'M';

23) What is the average age of female programmers?
SELECT AVG (FLOOR((SYSDATE - DOB)/365)) FROM PROGRAMMER WHERE SEX
= 'F';

24) Calculate the experience in years for each programmers and display along with the names in descending order?

```
SELECT NAME, FLOOR ((SYSDATE - DOJ)/365) AS EXPERIENCE FROM  
PROGRAMMER ORDER BY NAME DESC;
```

25) Who are the programmers who celebrate their birthday during the current month?

```
SELECT NAME FROM PROGRAMMER WHERE TO_CHAR  
(DOB,'MM')=TO_CHAR(SYSDATE,'MM');
```

26) How many female programmers are there?

```
SELECT COUNT (NAME) FEMALE_PROG FROM PROGRAMMER WHERE SEX='F';
```

27) What are the languages known by the male programmers?

```
SELECT DISTINCT PROF1 LANGUAGES FROM PROGRAMMER WHERE SEX='M'  
UNION  
SELECT DISTINCT PROF2 FROM PROGRAMMER WHERE SEX='M';
```

28) What is the Average salary?

```
SELECT AVG (SALARY) AS AVGSAL FROM PROGRAMMER;
```

29) How many people draw 2000 to 4000?

```
SELECT NAME FROM PROGRAMMER WHERE SALARY BETWEEN 2000 AND 4000;
```

30) Display the details of those who don't know Clipper, Cobol or Pascal?

```
SELECT * FROM PROGRAMMER WHERE PROF1 NOT IN  
( 'CLIPPER','COBOL','PASCAL') AND PROF2 NOT IN ( 'CLIPPER','COBOL','PASCAL');
```

31) How many Female programmers knowing C are above 24 years of age?

```
SELECT COUNT (NAME) FROM PROGRAMMER WHERE SEX='F' AND (PROF1='C'  
OR PROF2='C') AND ((SYSDATE-DOB)/365) > 24;
```

32) Who are the programmers who will be celebrating their Birthday within a week?

```
SELECT NAME FROM PROGRAMMER WHERE TO_CHAR(DOB,'WW') =  
TO_CHAR(SYSDATE,'WW');
```

33) Display the details of those with less than a year's experience?

```
SELECT * FROM PROGRAMMER WHERE FLOOR((SYSDATE - DOJ)/365)<1;
```

34) Display the details of those who will be completing 2 years of service this year?

```
SELECT NAME FROM PROGRAMMER WHERE FLOOR((SYSDATE-DOJ)/365)=2;
```

35) Calculate the amount to be recovered for those packages whose development cost has not been recovered?

SELECT (DCOST-(SCOST*SOLD)), TITLE FROM SOFTWARE WHERE
(SCOST*SOLD)<DCOST;

36) List the packages which have not been sold so far?

SELECT TITLE SOFTWARE FROM SOFTWARE WHERE SOLD=0;

37) Find out the cost of the software developed by Mary?

SELECT TITLE, SCOST AS SOFTCOST FROM SOFTWARE WHERE NAME='MARY';

38) Display the institutes names from the studies table without duplicates?

SELECT DISTINCT SPLACE FROM STUDIES;

39) How many different courses are mentioned in the studies table?

SELECT DISTINCT COURSE FROM STUDIES;

40) Display the names of the programmers whose names contain 2 occurrences of the letter A?

SELECT NAME FROM PROGRAMMER WHERE NAME LIKE '%A%A%';

41) Display the names of programmers whose names contain upto 5 characters?

SELECT NAME FROM PROGRAMMER WHERE LENGTH(NAME)=5;

42) How many female programmers knowing COBOL have more than 2 years experience?

SELECT NAME FROM PROGRAMMER WHERE FLOOR((SYSDATE-DOJ)/365)>2
AND SEX='F' AND (PROF1='COBOL' OR PROF2='COBOL');

43) What is the length of the shortest name in the programmer table?

SELECT MIN(LENGTH(NAME)) FROM PROGRAMMER;

44) What is the average development cost of a package developed in COBOL?

SELECT AVG(DCOST) FROM SOFTWARE WHERE DEV_IN='COBOL';

45) Display the name,sex,dob(DD/MM/YY format), doj for all the programmers without using conversion function?

SELECT NAME, SEX , SUBSTR(DOB,1,2)||'/'||SUBSTR(DOB,4,3)||'/'||SUBSTR(DOB,8,2)
DOB, SUBSTR(DOJ,1,2)||'/'||SUBSTR(DOJ,4,3)||'/'||SUBSTR(DOJ,8,2) DOJ FROM
PROGRAMMER;

46) Who are the programmers who were born on the last day of the month?

SELECT NAME FROM PROGRAMMER WHERE LAST_DAY(DOB) = DOB;

47) What is the amount paid in salaries of the male programmers who do not know Cobol?

SELECT SALARY FROM PROGRAMMER WHERE SEX='M' AND (PROF1!='COBOL'
OR PROF2!='COBOL');

48) Display the title, scost, dcost and difference between scost and dcost in descending order of difference?

```
SELECT TITLE, SCOST, DCOST, DCOST -SCOST DIFF FROM SOFTWARE ORDER  
BY 4 DESC;
```

49) Display the name, dob, doj of those month of birth and month of joining are same?

```
SELECT NAME FROM PROGRAMMER WHERE  
TO_CHAR(DOB,'MM')=TO_CHAR(DOJ,'MM');
```

50) Display the names of the packages whose names contain more than 1 word?

```
SELECT TITLE FROM SOFTWARE WHERE TITLE LIKE '% %';
```

QUERIES – II

1) Display THE NUMBER OF packages developed in EACH language.

```
SELECT DEV_IN LANGUAGE,COUNT(TITLE) NO_of_PACK FROM SOFTWARE  
GROUP BY DEV_IN;
```

2) Display THE NUMBER OF packages developed by EACH person.

```
SELECT NAME,COUNT(TITLE) No_of_Pack FROM SOFTWARE GROUP BY NAME;
```

3) Display THE NUMBER OF male and female programmer.

```
SELECT SEX,COUNT(NAME) FROM PROGRAMMER GROUP BY SEX;
```

4) Display THE COSTLIEST packages and HIGEST selling developed in EACH language.

```
SELECT DEV_IN,MAX(SCOST),MAX(SOLD) FROM SOFTWARE GROUP BY  
DEV_IN;
```

5) Display THE NUMBER OF people BORN in EACH YEAR.

```
SELECT TO_CHAR(DOB,'YY') AS YEAR,COUNT(NAME) FROM PROGRAMMER  
GROUP BY TO_CHAR(DOB,'YY');
```

6) Display THE NUMBER OF people JOINED in EACH YEAR.

```
SELECT TO_CHAR(DOJ,'YY') AS YEAR,COUNT(NAME) FROM PROGRAMMER  
GROUP BY TO_CHAR(DOJ,'YY');
```

7) Display THE NUMBER OF people BORN in EACH MONTH.

```
SELECT SUBSTR(DOB,4,3),COUNT(NAME) FROM PROGRAMMER GROUP BY  
SUBSTR(DOB,4,3);
```

8) Display THE NUMBER OF people JOINED in EACH MONTH.

```
SELECT SUBSTR(DOJ,4,3),COUNT(NAME) FROM PROGRAMMER GROUP BY  
SUBSTR(DOJ,4,3);
```

9) Display the language wise COUNTS of prof1.

```
SELECT PROF1, COUNT(PROF1) FROM PROGRAMMER GROUP BY PROF1;
```

10) Display the language wise COUNTS of prof2.

```
SELECT PROF2, COUNT(PROF2) FROM PROGRAMMER GROUP BY PROF2;
```

11) Display THE NUMBER OF people in EACH salary group.

```
SELECT SALARY,COUNT(NAME) FROM PROGRAMMER GROUP BY SALARY;
```

12) Display THE NUMBER OF people who studied in EACH institute.

```
SELECT SPLACE,COUNT(NAME) FROM STUDIES GROUP BY SPLACE;
```

13) Display THE NUMBER OF people who studied in EACH course.

```
SELECT COURSE ,COUNT(NAME) FROM STUDIES GROUP BY COURSE;
```

14) Display the TOTAL development COST of the packages developed in EACH language.

```
SELECT DEV_IN LANG,SUM(DCOST) TOTAL_COST FROM SOFTWARE GROUP BY  
DEV_IN;
```

15) Display the selling cost of the package developed in EACH language.

```
SELECT DEV_IN ,SUM(SCOST) FROM SOFTWAREGROUP BY DEV_IN;
```

16) Display the cost of the package developed by EACH programmer.

```
SELECT NAME,SUM(DCOST) AS TOTAL_COST FROM SOFTWARE GROUP BY  
NAME;
```

17) Display the sales values of the package developed in EACH programmer.

```
SELECT NAME, SUM(SCOST*SOLD) FROM SOFTWARE GROUP BY NAME;
```

18) Display the NUMBER of packages developed by EACH programmer.

```
SELECT NAME,COUNT(TITLE) AS TOTAL_PACK FROM SOFTWARE GROUP BY  
NAME;
```

19) Display the sales COST of packages developed by EACH programmer language wise.

```
SELECT DEV_IN, SUM(SCOST) FROM SOFTWARE GROUP BY DEV_IN;
```

20) Display EACH programmers name, costliest package, cheapest packages developed by His/Her?

```
SELECT NAME,MIN(DCOST),MAX(DCOST) FROM SOFTWARE GROUP BY NAME;
```

21) Display EACH language name with AVERAGE development cost, AVERAGE cost, selling cost and AVERAGE price per copy.

SELECT DEV_IN,AVG(DCOST),AVG(SCOST),AVG(SCOST) FROM SOFTWARE
GROUP BY DEV_IN;

22) Display EACH institute name with NUMBER of courses, AVERAGE cost per course.
SELECT SPLACE,COUNT(COURSE), AVG(CCOST) FROM STUDIES GROUP BY
SPLACE;

23) Display EACH institute name with NUMBER of students.
SELECT SPLACE,COUNT(NAME) FROM STUDIES GROUP BY SPLACE;

24) Display names of male and female programmers.
SELECT NAME,SEX FROM PROGRAMMER ORDER BY SEX;

25) Display the programmer's name and their packages.
SELECT NAME,TITLE FROM SOFTWARE ORDER BY NAME;

26) Display the NUMBER of packages in EACH language.
SELECT COUNT(TITLE),DEV_IN FROM SOFTWARE GROUP BY DEV_IN;

27) Display the NUMBER of packages in EACH language for which development cost is less
than 1000.
SELECT COUNT(TITLE),DEV_IN FROM SOFTWARE WHERE DCOST<1000 GROUP
BY DEV_IN;

28) Display the AVERAGE difference BETWEEN scost and dcost for EACH language.
SELECT DEV_IN,AVG(DCOST - SCOST) FROM SOFTWARE GROUP BY DEV_IN;

29) Display the TOTAL scost, dcsot and amount TOBE recovered for EACH programmer for
whose dcost HAS NOT YET BEEN recovered.
SELECT SUM(SCOST), SUM(DCOST), SUM(DCOST-(SOLD*SCOST)) FROM
SOFTWARE GROUP BY NAME
HAVING SUM(DCOST)>SUM(SOLD*SCOST);

30) Display highest, lowest and average salaries for THOSE earning MORE than 2000.
SELECT MAX(SALARY), MIN(SALARY), AVG(SALARY) FROM PROGRAMMER
WHERE SALARY > 2000;

QUERIES – III

1) Who is the highest paid C programmer?

SELECT * FROM PROGRAMMER WHERE SALARY=(SELECT MAX(SALARY)
FROM PROGRAMMER WHERE PROF1 LIKE 'C' OR PROF2 LIKE 'C');

2) Who is the highest paid female cobol programmer?

SELECT * FROM PROGRAMMER WHERE SALARY=(SELECT MAX(SALARY)
FROM PROGRAMMER WHERE (PROF1 LIKE 'COBOL' OR PROF2 LIKE 'COBOL'))
AND SEX LIKE 'F';

3) Display the name of the HIGHEST paid programmer for EACH language (prof1)

SELECT DISTINCT NAME, SALARY, PROF1 FROM PROGRAMMER WHERE
(SALARY,PROF1) IN (SELECT MAX(SALARY),PROF1 FROM PROGRAMMER
GROUP BY PROF1);

4) Who is the LEAST experienced programmer?

SELECT FLOOR((SYSDATE-DOJ)/365) EXP,NAME FROM PROGRAMMER WHERE
FLOOR((SYSDATE-DOJ)/365) = (SELECT MIN(FLOOR((SYSDATE-DOJ)/365)) FROM
PROGRAMMER);

5) Who is the MOST experienced programmer?

SELECT FLOOR((SYSDATE-DOJ)/365) EXP,NAME,PROF1,PROF2 FROM
PROGRAMMER WHERE FLOOR((SYSDATE-DOJ)/365) = (SELECT
MAX(FLOOR((SYSDATE-DOJ)/365)) FROM PROGRAMMER) AND (PROF1 LIKE
'COBOL' OR PROF2 LIKE 'COBOL');

6) Which language is known by ONLY ONE programmer?

SELECT PROF1 FROM PROGRAMMER GROUP BY PROF1 HAVING PROF1 NOT IN
(SELECT PROF2 FROM PROGRAMMER) AND COUNT(PROF1)=1 UNION SELECT
PROF2 FROM PROGRAMMER GROUP BY PROF2 HAVING PROF2 NOT IN (SELECT
PROF1 FROM PROGRAMMER) AND COUNT(PROF2)=1;

7) Who is the YONGEST programmer knowing DBASE?

SELECT FLOOR((SYSDATE-DOB)/365) AGE, NAME, PROF1, PROF2 FROM
PROGRAMMER WHERE FLOOR((SYSDATE-DOB)/365) = (SELECT
MIN(FLOOR((SYSDATE-DOB)/365)) FROM PROGRAMMER WHERE PROF1 LIKE
'DBASE' OR PROF2 LIKE 'DBASE');

8) Which institute has MOST NUMBER of students?

SELECT SPLACE FROM STUDIES GROUP BY SPLACE HAVING COUNT(SPLACE)=
(SELECT MAX(COUNT(SPLACE)) FROM STUDIES GROUP BY SPLACE);

9) Who is the above programmer?

SELECT NAME
FROM PROGRAMMER
WHERE PROF1 IN (SELECT PROF1


```

FROM PROGRAMMER
GROUP BY PROF1
HAVING PROF1 NOT IN (SELECT PROF2 FROM PROGRAMMER)
AND COUNT(PROF1)=1
UNION
SELECT PROF2
FROM PROGRAMMER
GROUP BY PROF2
HAVING PROF2 NOT IN (SELECT PROF1 FROM PROGRAMMER)
AND COUNT(PROF2)=1))
UNION
SELECT NAME
FROM PROGRAMMER
WHERE PROF2 IN (SELECT PROF1
FROM PROGRAMMER
GROUP BY PROF1
HAVING PROF1 NOT IN (SELECT PROF2 FROM PROGRAMMER)
AND COUNT(PROF1)=1
UNION
SELECT PROF2
FROM PROGRAMMER
GROUP BY PROF2
HAVING PROF2 NOT IN (SELECT PROF1 FROM PROGRAMMER)
AND COUNT(PROF2)=1))

```

10) Which female programmer earns MORE than 3000/- but DOES NOT know C, C++, Oracle or Dbase?

```

SELECT * FROM PROGRAMMER WHERE SEX = 'F' AND SALARY >3000 AND
(PROF1 NOT IN('C','C++','ORACLE','DBASE') OR PROF2 NOT
IN('C','C++','ORACLE','DBASE'));

```

11) Which is the COSTLIEST course?

```

SELECT COURSE FROM STUDIES WHERE CCOST = (SELECT MAX(CCOST) FROM
STUDIES);

```

12) Which course has been done by MOST of the students?

```

SELECT COURSE FROM STUDIES GROUP BY COURSE HAVING
COUNT(COURSE)= (SELECT MAX(COUNT(COURSE)) FROM STUDIES GROUP BY
COURSE);

```

13) Display name of the institute and course Which has below AVERAGE course fee?

```

SELECT SPLACE,COURSE FROM STUDIES WHERE CCOST < (SELECT
AVG(CCOST) FROM STUDIES);

```

14) Which institute conducts COSTLIEST course?

```
SELECT SPLACE FROM STUDIES WHERE CCOST = (SELECT MAX(CCOST) FROM STUDIES);
```

15) Which course has below AVERAGE number of students?

```
SELECT COURSE FROM STUDIES GROUP BY COURSE HAVING  
COUNT(NAME)<(SELECT AVG(COUNT(NAME)) FROM STUDIES GROUP BY  
COURSE) ;
```

16) Which institute conducts the above course?

```
SELECT SPLACE FROM STUDIES WHERE COURSE IN (SELECT COURSE FROM  
STUDIES GROUP BY COURSE HAVING COUNT(NAME) < (SELECT  
AVG(COUNT(NAME)) FROM STUDIES GROUP BY COURSE));
```

17) Display names of the course WHOSE fees are within 1000(+ or -) of the AVERAGE fee.

```
SELECT COURSE FROM STUDIES WHERE CCOST < (SELECT AVG(CCOST)+1000  
FROM STUDIES) AND CCOST > (SELECT AVG(CCOST)-1000 FROM STUDIES);
```

18) Which package has the HIGEST development cost?

```
SELECT TITLE,DCOST FROM SOFTWARE WHERE DCOST = (SELECT  
MAX(DCOST) FROM SOFTWARE);
```

19) Which package has the LOWEST selling cost?

```
SELECT TITLE,SCOST FROM SOFTWARE WHERE SCOST = (SELECT MIN(SCOST)  
FROM SOFTWARE);
```

20) Who developed the package, which has sold the LEAST number of copies?

```
SELECT NAME,SOLD FROM SOFTWARE WHERE SOLD = (SELECT MIN(SOLD)  
FROM SOFTWARE);
```

21) Which language was used to develop the package WHICH has the HIGEST sales amount?

```
SELECT DEV_IN,SCOST FROM SOFTWARE WHERE SCOST = (SELECT  
MAX(SCOST) FROM SOFTWARE);
```

22) How many copies of the package that has the LEAST DIFFERENCE between development and selling cost were sold?

```
SELECT SOLD,TITLE FROM SOFTWARE WHERE TITLE = (SELECT TITLE FROM  
SOFTWARE WHERE (DCOST-SCOST)=(SELECT MIN(DCOST-SCOST) FROM  
SOFTWARE);
```

23) Which is the COSTLIEAST package developed in PASCAL?

```
SELECT TITLE FROM SOFTWARE WHERE DCOST = (SELECT MAX(DCOST) FROM  
SOFTWARE WHERE DEV_IN LIKE 'PASCAL');
```

24) Which language was used to develop the MOST NUMBER of package?

```
SELECT DEV_IN FROM SOFTWARE GROUP BY DEV_IN HAVING MAX(DEV_IN) =  
(SELECT MAX(DEV_IN) FROM SOFTWARE);
```

25) Which programmer has developed the HIGEST NUMBER of package?

```
SELECT NAME FROM SOFTWARE GROUP BY NAME HAVING MAX(NAME) =  
(SELECT MAX(NAME) FROM SOFTWARE);
```

26) Who is the author of the COSTLIEST package?

```
SELECT NAME,DCOST FROM SOFTWARE WHERE DCOST = (SELECT  
MAX(DCOST) FROM SOFTWARE);
```

27) Display names of packages WHICH have been sold LESS THAN the AVERAGE number of copies?

```
SELECT TITLE FROM SOFTWARE WHERE SOLD < (SELECT AVG(SOLD) FROM  
SOFTWARE);
```

28) Who are the female programmers earning MORE than the HIGEST paid male programmers?

```
SELECT NAME FROM PROGRAMMER WHERE SEX = 'F' AND SALARY >  
(SELECT(MAX(SALARY)) FROM PROGRAMMER WHERE SEX = 'M');
```

29) Which language has been stated as prof1 by MOST of the programmers?

```
SELECT PROF1 FROM PROGRAMMER GROUP BY PROF1 HAVING PROF1 =  
(SELECT MAX(PROF1) FROM PROGRAMMER);
```

30) Who are the authors of packages, WHICH have recovered MORE THAN double the development cost?

```
SELECT NAME FROM SOFTWARE WHERE SOLD*SCOST > 2*DCOST;
```

31) Display programmer names and CHEAPEST package developed by them in EACH language?

```
SELECT NAME,TITLE FROM SOFTWARE WHERE DCOST IN (SELECT  
MIN(DCOST) FROM SOFTWARE GROUP BY DEV_IN);
```

32) Who is the YOUNGEST male programmer born in 1965?

```
SELECT NAME FROM PROGRAMMER WHERE DOB=(SELECT (MAX(DOB)) FROM  
PROGRAMMER WHERE TO_CHAR(DOB,'YYYY') LIKE '1965');
```

33) Display language used by EACH programmer to develop the HIGEST selling and LOWEST selling package.

SELECT NAME, DEV_IN FROM SOFTWARE WHERE SOLD IN (SELECT MAX(SOLD) FROM SOFTWARE GROUP BY NAME) UNION SELECT NAME, DEV_IN FROM SOFTWARE WHERE SOLD IN (SELECT MIN(SOLD) FROM SOFTWARE GROUP BY NAME);

34) Who is the OLDEST female programmer WHO joined in 1992?
SELECT NAME FROM PROGRAMMER WHERE DOJ=(SELECT (MIN(DOJ)) FROM PROGRAMMER WHERE TO_CHAR(DOJ,'YYYY') LIKE '1992');

35) In WHICH year where the MOST NUMBER of programmer born?
SELECT DISTINCT TO_CHAR(DOB,'YYYY') FROM PROGRAMMER WHERE TO_CHAR(DOJ,'YYYY') = (SELECT MIN(TO_CHAR(DOJ,'YYYY')) FROM PROGRAMMER);

36) In WHICH month did MOST NUMBRER of programmer join?
SELECT DISTINCT TO_CHAR(DOJ,'MONTH') FROM PROGRAMMER WHERE TO_CHAR(DOJ,'MON') = (SELECT MIN(TO_CHAR(DOJ,'MON')) FROM PROGRAMMER);

37) In WHICH language are MOST of the programmer's proficient?
SELECT PROF1 FROM PROGRAMMER GROUP BY PROF1 HAVING COUNT(PROF1)=(SELECT MAX(COUNT(PROF1)) FROM PROGRAMMER GROUP BY PROF1) OR COUNT(PROF2)=(SELECT MAX(COUNT(PROF2)) FROM PROGRAMMER GROUP BY PROF2)
UNION
SELECT PROF2 FROM PROGRAMMER GROUP BY PROF2 HAVING COUNT(PROF1)=(SELECT MAX(COUNT(PROF1)) FROM PROGRAMMER GROUP BY PROF1) OR COUNT(PROF2)=(SELECT MAX(COUNT(PROF2)) FROM PROGRAMMERGROUP BY PROF2);

38) Who are the male programmers earning BELOW the AVERAGE salary of female programmers?
SELECT NAME FROM PROGRAMMER WHERE SEX = 'M' AND SALARY < (SELECT(AVG(SALARY))FROM PROGRAMMER WHERE SEX = 'F');

QUERIES – IV

1) Display the details of those who are drawing the same salary.
SELECT NAME, SALARY FROM PROGRAMMER WHERE SALARY = ANY(SELECT SALARY FROM PROGRAMMER P GROUP BY SALARY HAVING SALARY=P.SALARY AND COUNT(*)>1);

2) Display the details of software developed by male programmers earning more than 3000.

```
SELECT SOFTWARE.* FROM PROGRAMMER P, SOFTWARE S WHERE  
P.NAME=S.NAME AND SALARY>3000 AND SEX='M';
```

3) Display details of packages developed in pascal by female programmers.

```
SELECT S.* FROM PROGRAMMER P, SOFTWARE S WHERE P.NAME=S.NAME AND  
SEX='F' AND DEV_IN='PASCAL';
```

4) Display the details of these programmer who joined before 1990.

```
SELECT * FROM PROGRAMMER WHERE TO_CHAR(DOJ,'YY')<90;
```

5) Display details of software developed in c by female programmers of pragathi.

```
SELECT S.* FROM SOFTWARE S, STUDIES ST, PROGRAMMER P WHERE  
S.NAME=ST.NAME AND P.NAME=S.NAME AND SEX='F' AND  
SPLACE='PRAGATHI';
```

6) Display number of packages number of copies sold and sales value of each programmer institute-wise.

```
SELECT STUDIES.SPLACE, COUNT(SOFTWARE.DEV_IN),  
COUNT(SOFTWARE.SOLD), SUM(SOFTWARE.SOLD*SOFTWARE.SCOST) FROM  
SOFTWARE, STUDIES WHERE SOFTWARE.NAME=STUDIES.NAME GROUP BY  
STUDIES.SPLACE;
```

7) Display details of software developed in dbase by male programmers who belong to the institute on which most number of programmers studies.

```
SELECT SOFTWARE.* FROM PROGRAMMER, SOFTWARE, STUDIES WHERE  
PROGRAMMER.NAME=SOFTWARE.NAME AND  
SOFTWARE.NAME=STUDIES.NAME AND PROGRAMMER.NAME=STUDIES.NAME  
AND SEX='M' AND DEV_IN='DBASE' AND SPLACE= (SELECT SPLACE FROM  
STUDIES GROUP BY SPLACE HAVING COUNT(SPLACE) =(SELECT  
MAX(COUNT(SPLACE))FROM STUDIES GROUP BY SPLACE));
```

8) Display the details of the software that was developed by male programmers born before 1965 and female programmers born after 1975.

```
SELECT SOFTWARE.* FROM PROGRAMMER P, SOFTWARE S WHERE  
S.NAME=P.NAME AND SEX='M' AND TO_CHAR(DOB,'YY')<64 OR SEX='F' AND  
TO_CHAR(DOB,'YY')>75);
```

9) Display the details of the software that was developed in the language that is not the programmers first proficiency.

```
SELECT DISTINCT X.* FROM SOFTWARE X, PROGRAMMER Y WHERE Y.PROF1  
<> X.DEV_IN AND X.NAME = Y.NAME;
```

10) Display details of software that was developed in the language which is neither first nor second proficiency of the programmer.

```
SELECT S.* FROM PROGRAMMER P, SOFTWARE S WHERE S.NAME=P.NAME AND  
(DEV_IN <> PROF1 AND DEV_IN <> PROF2);
```

11) Display details of software developed by male students of sabhari.

```
SELECT S.* FROM PROGRAMMER P, SOFTWARE S, STUDIES ST WHERE  
P.NAME=S.NAME AND S.NAME=ST.NAME AND SEX='M' AND  
SPLACE='SABHARI';
```

12) Display the names of programmers who have not developed any package.

```
SELECT NAME FROM PROGRAMMER WHERE NAME NOT IN(SELECT NAME  
FROM SOFTWARE);
```

13) What is the total cost of the software developed by the programmers by apple?

```
SELECT SUM(SCOST) FROM SOFTWARE S, STUDIES ST WHERE  
S.NAME=ST.NAME AND SPLACE='APPLE';
```

14) Who are the programmers who joined in the same day?

```
SELECT A.NAME, A.DOJ FROM PROGRAMMER A, PROGRAMMER B WHERE  
A.DOJ=B.DOJ AND A.NAME <> B.NAME;
```

15) Who are the programmers who have the same prof2?

```
SELECT NAME FROM PROGRAMMER WHERE PROF2 = ANY(SELECT PROF2  
FROM PROGRAMMER GROUP BY PROF2 HAVING COUNT(*) >1);
```

16) Display the total sales values of software, institutes-wise.

```
SELECT STUDIES.SPLACE, SUM(SOFTWARE.SOLD*SOFTWARE.SCOST) FROM  
SOFTWARE, STUDIES WHERE STUDIES.NAME=SOFTWARE.NAME GROUP BY  
STUDIES.SPLACE;
```

17) In which institutes did the person who developed the costliest package study?

```
SELECT SPLACE FROM SOFTWARE ST, STUDIES S WHERE S.NAME=ST.NAME  
GROUP BY SPLACE, DCOST HAVING MAX(DCOST)=(SELECT MAX(DCOST) FROM  
SOFTWARE);
```

18) Which language listed in prof1 and prof2 has not been used to develop any package?

```
SELECT PROF1 FROM PROGRAMMER WHERE PROF1 NOT IN(SELECT DEV_IN  
FROM SOFTWARE) UNION SELECT PROF2 FROM PROGRAMMER WHERE PROF2  
NOT IN(SELECT DEV_IN FROM SOFTWARE);
```

19) How much does the person who developed the highest selling package earn and what course did he/she undergo?

SELECT P1.SALARY,S2.COURSE FROM PROGRAMMER P1,SOFTWARE S1,STUDIES S2 WHERE P1.NAME=S1.NAME AND S1.NAME=S2.NAME AND SCOST=(SELECT MAX(SCOST) FROM SOFTWARE);

20) How many months will it take for each programmer to recover the cost of the course underwent?

SELECT P.NAME,CEIL(CCOST/SALARY) FROM PROGRAMMER P,STUDIES S WHERE S.NAME=P.NAME;

21) Which is the costliest package developed by a person with under 3 years experience?

SELECT X.TITLE FROM SOFTWARE X, PROGRAMMER Y WHERE (MONTHS_BETWEEN(SYSDATE, Y.DOJ)/12) > 3 AND X.NAME=Y.NAME;

22) What is the average salary for those whose software's sales value is more than 50,000?

SELECT AVG(SALARY) FROM PROGRAMMER P,SOFTWARE S WHERE P .NAME=S.NAME AND SOLD*SCOST>50000;

23) How many packages were developed by the students who studied in the institute that charge the lowest course fee?

SELECT COUNT(S.NAME) FROM SOFTWARE S,STUDIES ST WHERE S.NAME=ST.NAME GROUP BY S.NAME,CCOST HAVING MIN(CCOST)=(SELECT MIN(CCOST) FROM STUDIES);

24) How many packages were developed by the person who developed the cheapest package. where did he\she study?

SELECT COUNT(*) FROM PROGRAMMER P,SOFTWARE S WHERE S .NAME=P.NAME GROUP BY DEV_IN HAVING MIN(DCOST)=(SELECT MIN(DCOST) FROM SOFTWARE);

25) How many packages were developed by female programmers earning more than the highest paid male programmer?

SELECT COUNT(DEV_IN) FROM PROGRAMMER P,SOFTWARE S WHERE S.NAME=P.NAME AND SEX='F' AND SALARY>(SELECT MAX(SALARY) FROM PROGRAMMER P,SOFTWARE S WHERE S.NAME=P.NAME AND SEX='M');

26) How many packages were developed by the most experienced programmers from bdps.

SELECT COUNT(X.NAME) FROM SOFTWARE X, PROGRAMMER Y, STUDIES X WHERE MONTHS_BETWEEN(SYSDATE, Y.DOJ)/12) = (SELECT MAX(MONTHS_BETWEEN(SYSDATE,Y.DOJ)/12) FROM PROGRAMMER Y, STUDIES = WHERE X.SPLACE = 'BDPS' AND Y.NAME = Z.NAME) AND X.NAME=Y.NAME ANDZ.SPLACE='BDPS';

27) List the programmers (from software table) and institutes they studied, including those who didn't develop any package.

```
SELECT NAME,SPLACE FROM STUDIES WHERE NAME NOT IN(SELECT NAME
FROM SOFTWARE);
```

28) List each profit with the number of programmers having that prof1 and the number of packages developed in that prof1.

```
SELECT COUNT(*),SUM(SCOST*SOLD-DCOST) "PROFIT" FROM SOFTWARE
WHERE DEV_IN IN (SELECT PROF1 FROM PROGRAMMER) GROUP BY DEV_IN;
```

29) List programmer names (from programmer table) and number of packages each developed.

```
SELECT S.NAME,COUNT(DEV_IN) FROM PROGRAMMER P1,SOFTWARE S
WHERE P1.NAME=S.NAME GROUP BY S.NAME;
```

30) List all the details of programmers who has done a course at s.s.i.l.

```
SELECT PROGRAMMER.* FROM PROGRAMMER,STUDIES WHERE SPLACE='SSIL'
AND PROGRAMMER.NAME=SOFTWARE.NAME AND
PROGRAMMER.NAME=STUDIES.NAME AND STUDIES.SPLACE='S.S.I.L.';
```