**QUERIES-1**

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 costof 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';

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;

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;

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 (PROF 1 !='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;

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';

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;

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) 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'));

10) Which is the COSTLIEST course?

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

11) 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);

12) 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);

13) Which institute conducts COSTLIEST course?

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

14) 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) ;

15) 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));

16) 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);

17) Which package has the HIGEST development cost?

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

18) Which package has the LOWEST selling cost?

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

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

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

20) 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);

21) How many copies of the package that has the LEAST DIFFRENCE 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);

22) Which is the COSTLIEAST package developed in PASCAL?

SELECT TITLE FROM SOFTWARE WHERE DCOST = (SELECT MAX(DCOST) FROM SOFTWARE WHERE DEV\_IN LIKE 'PASCAL');

23) 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);

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

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

25) Who is the author of the COSTLIEST package?

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

26) 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);

27) 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');

28) 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);

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

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

30) 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);

31) 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');

32) 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);

33) 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');

34) 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);

35) 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);

36) 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);

37) 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 earing 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 ORr 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 NITHER 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 t 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 t 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 t 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 SELECTt 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 expenence?

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>( FROM 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 AND z.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.';