**SRINIDHINIVAS K**

**SRI ESHWAR COLLEGE OF ENGINEERING**

**SQL PRACTICE QUERIES – ASPIRE SYSTEM TRAINING.**

create database coe;

use coe;

create table programer(

name varchar(8) not null,

dob date not null,

doj date not null,

sex varchar(1)not null,

prof1 varchar(8),

prof2 varchar(8),

salary int

);

insert into programer values("somdutt",'2002-05-23','2023-05-03','M','pascal','basic',10000),

("nivas",'2002-05-23','2023-05-03','M','pascal','basic',10000),

("vennila",'2002-06-23','2023-06-03','F','pascal','basic',12000),

("sathya",'2001-05-23','2022-05-03','M','pascal','basic',13000),

("sinehan",'2002-09-23','2022-05-23','M','pascal','basic',14000),

("vishnu",'2007-05-13','2023-11-11','F','pascal','basic',15000);

create table software(

name varchar(8) not null,

title varchar(8) not null,

dev\_in varchar(8) not null,

scost decimal(7,2),

dcost int,

sold int );

insert into software values("somdut","parachu","basic",399.95,6000,43),

("sineha","juice","angular",390.95,7100,48),

("nivas","shoe","html",399.95,6700,53),

("vennila","web ","css",378.95,6100,46),

("sathyta","amazon","js",329.95,6200,44),

("sinehan","servive","ts",400.95,6300,49),

("vishnu","medical","sql",401.95,6400,51);

create table studies(

name varchar(8) not null,

splace varchar(9) not null,

course varchar(5) not null,

ccost varchar(5) not null);

insert into studies values

("nivas","udt","ece",200),

("venni","ckp","cse",200),

("sinehan","cbe","eee",200),

("sathya","pollachi","mech",200),

("vishnu","chennai","civil",200);

-- query ----------------------------------------------------------------------------------

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

select avg(scost) as selling\_cost

from software

where dev\_in = "pascal";

-- 2) Display the names and ages of all programmers.

select name, timestampdiff(year,dob,curdate()) as age from programer;

-- 3) Display the names and ages of all the programmers who have undergone training in DCS course.

select p.name, timestampdiff(year,dob,curdate()) as age

from programer p join studies s

on p.name = s.name

where course = "dcs";

-- 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 name , dob from programer where month(dob) =5;

-- 6) Display lowest course fee.

select min(scost) from software;

-- 7) How many programmer has done PGDCA course.

select count(\*) from programer p

join studies s on

s.name =p.name

where course = "ece";

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

select sum(scost \* sold) as revenue

from software

where dev\_in = "html";

-- 9) Display the details of software developed by Ramesh?

select title from software

where name ="nivas";

-- 10) How many programmers studied at SABHARI.

select count(name) from studies

where splace = "udt";

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

select \* from software

where sold > 45;

-- 12) Find out the number of copies which should be sold in order to recover

-- the development cost ofeach 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) as costliest from software;

-- 14) Display the details of packages for which development cost has been recovered.

select \* from software where dcost < scost;

-- 15) How many packages were developed in dbase?

select count(name) from software

where dev\_in ="css";

-- 16) How many programmers studies at paragathi?

select \* from studies

where splace ="udt";

-- 17) How many programmers paid 5000 to 10000 for their course?

select count(\*) from studies

where ccost between 50000 and 10000;

-- 18) What is the average course fee?

select avg(ccost) from studies;

-- 19) Display the details of programmers knowing c?

select \* from programer

where prof1 = 'pascal' or prof2 = 'pascal';

-- 20) How many programmers know either Cobol or Pascal?

select \* from programer

where prof1 in ("pascal","cobol") or prof2 in ("pascal","cobol");

-- 21) How many programmers don't know Pascal & C?

select \* from programer

where prof1 not in ("pascal","cobol") and prof2 not in ("pascal","cobol");

-- 22) How old is the oldest male programmers?

select max(timestampdiff(year,dob,curdate())) from programer

where sex ="M";

-- 23) What is the average age of female programmers?

select avg(timestampdiff(year,dob,curdate())) from programer

where sex = "F";

-- 24) Calculate the experience in years for each programmers and display along with the names in

-- descending order?

select timestampdiff(year,doj,curdate()) as experience from programer order by experience desc;

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

select name from programer

where timestampdiff(month,dob,curdate()) =0 ;

-- 26) How many female programmers are there?

select count(name) from programer

where sex = "F";

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

select distinct prof1 , prof2 from programer

where sex = "M";

-- 28) What is the Average salary?

select avg(salary) from programer;

-- 29) How many people draw 2000 to 4000?

select count(name) from programer

where salary between 10000 and 12000;

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

select \* from programer

where prof1 not in ("clipper","cobol","pascal") or prof2 not in ("clipper","cobol","pascal");

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

select name from programer

where sex= "F" and ( prof1='c' or prof2 = 'c') and timestampdiff(year,dob,curdate()) > 24;

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

select \* from programer

where timestampdiff(week,dob,curdate())=0;

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

select \* from programer

where timestampdiff(year,doj,curdate())<0;

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

select \* from programer

where timestampdiff(year,doj,curdate()) >=2;

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

-- recovered?

select (dcost - (scost\*sold)) as dev, title from software where (scost\*sold)<dcost;

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

select \* from software

where sold= 0;

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

select scost from software

where name = "nivas";

-- 38) Display the institute’s 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 programer

where name like "n%n%" or name like "%n%n" or name like "n%%n" or name like "%nn%";

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

select name from programer

where length(name)=5;

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

select name from programer

where sex ="F" and (prof1="cobol" or prof2 = "cobol") and timestampdiff(year,doj,curdate())<2;

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

select min(length(name)) from programer;

-- 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,date\_format(dob, '%d/%m/%y') as date ,doj

from programer;

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

select name from programer

where day(dob) = day(last\_day(dob));

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

select sum(salary) from programer

where sex='M' and prof1 <> "cobol" and prof2 <> "cobol";

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

select title ,scost ,dcost , scost-dcost as cost\_diff from software

order by cost\_diff desc;

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

select name ,dob,doj from programer

where month(dob) = month (doj);

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

select title from software

where name like "% %";

-- QUERIES - II ----------------------------------------------------------------------------------------------------------------------------------------------------------

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

select dev\_in as language ,count(title) as count

from software

group by dev\_in;

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

select name ,count(title) from software

group by name;

-- 3) Display THE NUMBER OF male and female programmer.

select sex,count(sex) as count

from programer

group by sex;

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

select dev\_in as language ,max(scost), max(sold)

from software

group by dev\_in;

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

select year(dob) , count(name)

from programer

group by year(dob);

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

select year(doj) as joining\_year,count(name)

from programer

group by year(doj);

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

select month (dob) ,count(name)

from programer

group by month (dob);

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

select month (doj) ,count(name)

from programer

group by month (doj);

-- 9) Display the language wise COUNTS of prof1.

select prof1 , count(prof1)

from programer

group by prof1;

-- 10) Display the language wise COUNTS of prof2.

select prof2 , count(prof2)

from programer

group by prof2;

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

select salary , count(name)

from programer

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 as language ,sum(dcost)

from software

group by dev\_in;

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

select dev\_in , sum(scost) as selling\_cost

from software

group by dev\_in;

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

select name , sum(scost) as selling\_cost

from software

group by name;

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

select name , sum(sold) as sales\_value

from software

group by name ;

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

select name , count(title)

from software

group by name;

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

select dev\_in , sum(scost\*sold)

from software

group by dev\_in;

-- 20) Display EACH programmers name, costliest package and cheapest packages developed by him/her

select name , max(scost) , min(scost)

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) , scost , avg(scost/sold)

from software

group by dev\_in;

-- 22) Display EACH institute name with NUMBER of courses, AVERAGE cost per course.

select name , count(course), avg(ccost/course) as avg\_cost\_percourse

from studies

group by name;

-- 23) Display EACH institute name with NUMBER of students.

select splace, count(name) as numbr\_of\_std

from studies

group by splace;

-- 24) Display names of male and female programmers.

select name , sex

from programer

order by sex;

-- 25) Display the programmer's name and their packages.

select name , title

from software;

-- 26) Display the NUMBER of packages in EACH language.

select dev\_in , count(title)

from software

group by dev\_in;

-- 27) Display the NUMBER of packages in EACH language for which development cost is less than 1000.

select dev\_in , count(title)

from software

where scost <1000

group by dev\_in;

-- 28) Display the AVERAGE difference BETWEEN scost and dcost for EACH language.

select dev\_in ,avg(scost-dcost)

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 name ,sum(scost) , sum(dcost) , sum(scost)-sum(dcost)

from software

group by name

having sum(scost) < sum(dcost);

-- 30) Display highest, lowest and average salaries for THOSE earning MORE than 2000.

select max(salary), min(salary), avg(salary)

from programer

where salary > 2000;

-- QUERIES - III -------------------------------------------------------------------------------------------------------------------------------------------------------

-- 1) Who is the highest paid C programmer?

select name

from programer

where prof1="c" or prof2 ="c"

order by salary desc

limit 1;

-- 2) Who is the highest paid female cobol programmer?

select name

from programer

where sex="F" and (prof1="cocol" or prof2 = "cobol")

order by salary desc limit 1;

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

SELECT DISTINCT ON (prof1) name

FROM Programmer

ORDER BY prof1, salary DESC;

4) Who is the LEAST experienced programmer?

SELECT name

FROM Programmer

ORDER BY doj

LIMIT 1;

5) Who is the MOST experienced programmer?

SELECT name

FROM Programmer

ORDER BY doj DESC

LIMIT 1;

6) Which language is known by ONLY ONE programmer?

SELECT prof1 AS Language

FROM Programmer

GROUP BY prof1

HAVING COUNT(\*) = 1

UNION

SELECT prof2 AS Language

FROM Programmer

GROUP BY prof2

HAVING COUNT(\*) = 1;

7) Who is the YOUNGEST programmer knowing DBASE?

SELECT name

FROM Programmer

WHERE prof1 = &#39;DBASE&#39; OR prof2 = &#39;DBASE&#39;

ORDER BY dob DESC

LIMIT 1;

8) Which institute has MOST NUMBER of students?

SELECT splace AS Institute, COUNT(\*) AS Student\_Count

FROM Studies

GROUP BY splace

ORDER BY Student\_Count DESC

LIMIT 1;

9) Who is the above programmer?

SELECT name

FROM Programmer

WHERE prof1 = (

SELECT prof1

FROM Programmer

WHERE prof1 = &#39;DBASE&#39; OR prof2 = &#39;DBASE&#39;

ORDER BY dob DESC

LIMIT 1

);

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

SELECT name

FROM Programmer

WHERE sex = &#39;f&#39; AND salary &gt; 3000

AND prof1 NOT IN (&#39;C&#39;, &#39;C++&#39;, &#39;Oracle&#39;, &#39;DBASE&#39;)

AND prof2 NOT IN (&#39;C&#39;, &#39;C++&#39;, &#39;Oracle&#39;, &#39;DBASE&#39;);

11) Which is the COSTLIEST course?

SELECT course

FROM Studies

ORDER BY ccost DESC

LIMIT 1;

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

SELECT course

FROM Studies

GROUP BY course

ORDER BY COUNT(\*) DESC

LIMIT 1;

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

SELECT splace AS Institute, course

FROM Studies

WHERE ccost &lt; (SELECT AVG(ccost) FROM Studies);

14) Which institute conducts COSTLIEST course?

SELECT splace AS Institute

FROM Studies

ORDER BY ccost DESC

LIMIT 1;

15) Which course has below AVERAGE number of students?

SELECT course

FROM Studies

GROUP BY course

HAVING COUNT(\*) &lt; (SELECT AVG(COUNT(\*)) FROM Studies GROUP BY course);

16) Which institute conducts the above course?

SELECT splace AS Institute

FROM Studies

GROUP BY splace

HAVING COUNT(\*) &lt; (SELECT AVG(COUNT(\*)) 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 BETWEEN (SELECT AVG(ccost) - 1000 FROM Studies) AND (SELECT AVG(ccost) + 1000 FROM

Studies);

18) Which package has the HIGEST development cost?

SELECT title

FROM Software

ORDER BY dcost DESC

LIMIT 1;

19) Which package has the LOWEST selling cost?

SELECT title

FROM Software

ORDER BY scost ASC

LIMIT 1;

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

SELECT name

FROM Software

WHERE sold = (SELECT MIN(sold) FROM Software)

LIMIT 1;

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

SELECT dev\_in AS Language

FROM Software

WHERE scost = (SELECT MAX(scost) FROM Software)

LIMIT 1;

22) How many copies of the package that has the LEAST DIFFRENCE between development and selling cost

were sold?

SELECT sold

FROM Software

ORDER BY ABS(scost - dcost)

LIMIT 1;

23) Which is the COSTLIEAST package developed in PASCAL?

SELECT title

FROM Software

WHERE dev\_in = &#39;PASCAL&#39;

ORDER BY scost DESC

LIMIT 1;

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

SELECT dev\_in AS Language

FROM Software

GROUP BY dev\_in

ORDER BY COUNT(\*) DESC

LIMIT 1;

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

SELECT name

FROM Software

GROUP BY name

ORDER BY COUNT(\*) DESC

LIMIT 1;

26) Who is the author of the COSTLIEST package?

SELECT name

FROM Software

WHERE scost = (SELECT MAX(scost) FROM Software)

LIMIT 1;

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

SELECT title

FROM Software

WHERE sold &lt; (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 = &#39;f&#39; AND salary &gt; (SELECT MAX(salary) FROM Programmer WHERE sex = &#39;m&#39;);

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

SELECT prof1 AS Language

FROM Programmer

GROUP BY prof1

ORDER BY COUNT(\*) DESC

LIMIT 1;

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

SELECT name

FROM Software

GROUP BY name

HAVING SUM(scost) &gt; (2 \* SUM(dcost));

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

SELECT s.name AS Programmer\_Name, s.title AS Cheapest\_Package, s.dev\_in AS Language

FROM Software s

JOIN (

SELECT name, dev\_in, MIN(scost) AS Min\_Selling\_Cost

FROM Software

GROUP BY name, dev\_in

) AS min\_cost ON s.name = min\_cost.name AND s.dev\_in = min\_cost.dev\_in AND s.scost =

min\_cost.Min\_Selling\_Cost;

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

SELECT name

FROM Programmer

WHERE sex = &#39;m&#39; AND YEAR(dob) = 1965

ORDER BY dob ASC

LIMIT 1;

33) Display language used by EACH programmer to develop the HIGHEST selling and LOWEST selling

package.

SELECT name,

(SELECT dev\_in FROM Software WHERE name = p.name AND scost = MAX(scost)) AS

Highest\_Selling\_Language,

(SELECT dev\_in FROM Software WHERE name = p.name AND scost = MIN(scost)) AS

Lowest\_Selling\_Language

FROM Programmer p;

34) Who is the OLDEST female programmer WHO joined in 1992

SELECT name

FROM Programmer

WHERE sex = &#39;f&#39; AND YEAR(doj) = 1992

ORDER BY dob ASC

LIMIT 1;

35) In WHICH year where the MOST NUMBER of programmer born?

SELECT YEAR(dob) AS Birth\_Year, COUNT(\*) AS Programmer\_Count

FROM Programmer

GROUP BY YEAR(dob)

ORDER BY Programmer\_Count DESC

LIMIT 1;

36) In WHICH month did MOST NUMBRER of programmer join?

SELECT MONTH(doj) AS Join\_Month, COUNT(\*) AS Programmer\_Count

FROM Programmer

GROUP BY MONTH(doj)

ORDER BY Programmer\_Count DESC

LIMIT 1;

37) In WHICH language are MOST of the programmer&#39;s proficient?

SELECT prof1 AS Language, COUNT(\*) AS Programmer\_Count

FROM Programmer

GROUP BY prof1

UNION ALL

SELECT prof2 AS Language, COUNT(\*) AS Programmer\_Count

FROM Programmer

GROUP BY prof2

ORDER BY Programmer\_Count DESC

LIMIT 1;

38) Who are the male programmers earning BELOW the AVERAGE salary of female programmers?

SELECT name

FROM Programmer

WHERE sex = &#39;m&#39; AND salary &lt; (SELECT AVG(salary) FROM Programmer WHERE sex = &#39;f&#39;);

QUERY - IV

1) Display the details of THOSE WHO are drawing the same salary.

SELECT \*

FROM Programmer

WHERE salary IN (

SELECT salary

FROM Programmer

GROUP BY salary

HAVING COUNT(\*) &gt; 1

);

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

SELECT \*

FROM Software

WHERE name IN (

SELECT name

FROM Programmer

WHERE sex = &#39;m&#39; AND salary &gt; 3000

);

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

SELECT \*

FROM Software

WHERE dev\_in = &#39;PASCAL&#39; AND name IN (

SELECT name

FROM Programmer

WHERE sex = &#39;f&#39;

);

4) Display the details of the programmer WHO joined BEFORE 1990.

SELECT \*

FROM Programmer

WHERE doj &lt; &#39;1990-01-01&#39;;

5) Display details of software developed in C by female programmers of PRAGATHI.

SELECT \*

FROM Software

WHERE dev\_in = &#39;C&#39; AND name IN (

SELECT name

FROM Programmer

WHERE sex = &#39;f&#39; AND splace = &#39;PRAGATHI&#39;

);

6) Display NUMBER of packages NUMBER of copies sold and sales value of EACH programmer Institute-

wise.

SELECT p.name AS Programmer\_Name, p.splace AS Institute, COUNT(s.title) AS Packages\_Developed,

SUM(s.sold) AS Total\_Copies\_Sold, SUM(s.sold \* s.scost) AS Total\_Sales\_Value

FROM Programmer p

LEFT JOIN Software s ON p.name = s.name

GROUP BY p.name, p.splace;

7) Display details of software developed in DBASE by male programmers WHO belong to the institute on

which MOST NUMBER OF programmer’s studies.

SELECT \*

FROM Software

WHERE dev\_in = &#39;DBASE&#39; AND name IN (

SELECT name

FROM Programmer

WHERE sex = &#39;m&#39; AND splace = (

SELECT splace

FROM Programmer

GROUP BY splace

ORDER BY COUNT(\*) DESC

LIMIT 1

)

);

8) Display the details of the software that was developed by male programmers born BEFORE 1965 and

female programmers born AFTER 1975.

SELECT \*

FROM Software

WHERE name IN (

SELECT name

FROM Programmer

WHERE (sex = &#39;m&#39; AND YEAR(dob) &lt; 1965)

OR (sex = &#39;f&#39; AND YEAR(dob) &gt; 1975)

);

9) Display the details of the software that was developed in the language that is NOT the programmer’s first

proficiency.

SELECT \*

FROM Software

WHERE dev\_in NOT IN (

SELECT prof1

FROM Programmer

UNION

SELECT prof2

FROM Programmer

);

10) Display details of software that was developed in the language which is NEITHER first NOR second

proficiency of the programmer.

SELECT \*

FROM Software

WHERE dev\_in NOT IN (

SELECT prof1

FROM Programmer

UNION

SELECT prof2

FROM Programmer

);

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

SELECT \*

FROM Software

WHERE name IN (

SELECT name

FROM Programmer

WHERE sex = &#39;m&#39; AND splace = &#39;SABHARI&#39;

);

12) Display the names of programmers WHO HAVE NOT developed any package.

SELECT name

FROM Programmer

WHERE name NOT IN (

SELECT DISTINCT name

FROM Software

);

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

SELECT SUM(scost) AS Total\_Cost

FROM Software

WHERE name IN (

SELECT name

FROM Programmer

WHERE splace = &#39;APPLE&#39;

);

14) Who are the programmers WHO JOINED in the same day?

SELECT name

FROM Programmer

GROUP BY name

HAVING COUNT(DISTINCT doj) = 1;

15) Who are the programmers WHO HAVE THE SAME PROF2?

SELECT name

FROM Programmer

GROUP BY name

HAVING COUNT(DISTINCT prof2) = 1;

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

SELECT p.splace AS Institute, SUM(s.sold \* s.scost) AS Total\_Sales\_Value

FROM Programmer p

LEFT JOIN Software s ON p.name = s.name

GROUP BY p.splace;

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

SELECT splace AS Institute

FROM Programmer

WHERE name IN (

SELECT name

FROM Software

WHERE scost = (SELECT MAX(scost) FROM Software)

);

18) Which language listed in prof1 and prof2 HAS NOT BEEN used to develop any package?

SELECT DISTINCT language

FROM (

SELECT prof1 AS language FROM Programmer

UNION

SELECT prof2 AS language FROM Programmer

) AS languages

WHERE language 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 p.name, p.salary, s.title, s.sold, s.scost, s.dcost, s.dev\_in

FROM Programmer p

JOIN Software s ON p.name = s.name

WHERE s.sold = (SELECT MAX(sold) FROM Software);

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

SELECT p.name, s.title, ROUND(s.scost / (p.salary / 12), 2) AS Months\_To\_Recover

FROM Programmer p

JOIN Software s ON p.name = s.name;

21) Which is the COSTLIEST package developed by a person with under 3 year’s experience?

SELECT \*

FROM Software

WHERE name IN (

SELECT name

FROM Programmer

WHERE DATE\_PART(&#39;year&#39;, CURRENT\_DATE) - DATE\_PART(&#39;year&#39;, doj) &lt; 3

)

ORDER BY scost DESC

LIMIT 1;

22) What is the AVERAGE salary for those WHOSE software&#39;s sales value is more than 50,000?

SELECT AVG(p.salary) AS Average\_Salary

FROM Programmer p

JOIN Software s ON p.name = s.name

GROUP BY p.salary

HAVING SUM(s.sold \* s.scost) &gt; 50000;

23) How many packages were developed by the students WHO studied in the institute that Charge the

LOWEST course fee?

SELECT COUNT(\*) AS Package\_Count

FROM Software

WHERE name IN (

SELECT name

FROM Programmer

WHERE splace = (

SELECT splace

FROM Studies

ORDER BY ccost ASC

LIMIT 1

)

);

24) How many packages were developed by the person WHO developed the CHEAPEST package? Where

did he\she study?

SELECT COUNT(\*) AS Package\_Count, p.splace AS Institute

FROM Software s

JOIN Programmer p ON s.name = p.name

WHERE scost = (

SELECT MIN(scost)

FROM Software

)

GROUP BY p.splace;

25) How many packages were developed by female programmers earning MORE than the HIGHEST paid

male programmer?

SELECT COUNT(\*) AS Package\_Count

FROM Software

WHERE name IN (

SELECT name

FROM Programmer

WHERE sex = &#39;f&#39; AND salary &gt; (

SELECT MAX(salary)

FROM Programmer

WHERE sex = &#39;m&#39;

)

);

26) How many packages were developed by the MOST experienced programmers from BDPS?

SELECT COUNT(\*) AS Package\_Count

FROM Software

WHERE name IN (

SELECT name

FROM Programmer

WHERE splace = &#39;BDPS&#39;

ORDER BY doj DESC

LIMIT 1

);

27) List the programmers (from software table) and institutes they studied, including those WHO DIDN&#39;T

develop any package.

SELECT p.name, p.splace AS Institute

FROM Programmer p

LEFT JOIN Software s ON p.name = s.name;

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

developed in that prof1.

SELECT prof1 AS Language, COUNT(DISTINCT name) AS Programmer\_Count, COUNT(title) AS

Package\_Count

FROM Programmer p

LEFT JOIN Software s ON p.name = s.name

GROUP BY prof1;

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

SELECT p.name, COUNT(s.title) AS Package\_Count

FROM Programmer p

LEFT JOIN Software s ON p.name = s.name

GROUP BY p.name;

30) List all the details of programmers.

SELECT \*

FROM Programmer;