

SQL QUERIES

AATHMIGA M

18.01.2023

DATABASE CREATED :create database assign1;

Use assign1;

CREATE TABLE

```
create table Programmer (name varchar(8), dob date, doj date, sex varchar(1), prof1  
varchar(8), prof2 varchar(8), salary numeric(4));
```

```
create table Software (name varchar(8) not null, title varchar(20) not null, dev_in  
varchar(8) not null, scost numeric(7,2), dcost numeric(5), sold numeric(3));
```

```
create table Studies (name varchar(8) not null, splace varchar(9) not null, course  
varchar(5) not null, ccost varchar(5) not null);
```

```
desc Programmer;
```

```
desc Software;
```

```
desc Studies;
```

INSERT VALUES

```
insert into Programmer(name, dob, doj, sex, prof1, prof2, salary) values('somedutt',  
'1966-04-21', '1992-04-21', 'm', 'pascal', 'basic', 3200);
```

```
insert into Software(name, title, dev_in, scost, dcost, sold) values('somedutt',  
'parachutes', 'basic', 399.95, 6000, 43);
```

```
insert into Studies(name, splace, course, ccost) values('somedutt', 'sabhari', 'pgdca',  
'4500'); insert into Studies(name, splace, course, ccost) values('devdutt', 'bdps', 'dcs',  
'5000');
```

```
select * from Programmer;
```

```
select * from Software;
```

```
select * from Studies;
```

QUERIES-1

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

select avg(scost) as SELLING_COST_AVERAGE from Software where dev_in = 'pascal';

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

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

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

select name from Studies where course = 'dap';

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

select max(sold) as MAXIMUM from Software;

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

select name,dob from Programmer where month(dob) = "01";

- 6) Display lowest course fee.**

select min(ccost) as MINIMUM from Studies;

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

select count(name) as COUNT from Studies where course = "pgdca";

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

select sum(sold*scost) as REVENUE from Software where dev_in = '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 PROGRAMMERS 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) as NO_OF_COPIES from Software;
```

13) What is the price of the costliest software developed in BASIC?

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

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) as PROGRAMMERS from Studies where splace = "paragathi";
```

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

```
select count(name) as PROGRAMMERS from studies where ccost >= 5000 and ccost <= 10000;
```

18) What is the average course fee?

```
select avg(ccost) as AVERAGE_COURSE_FEES 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 = 'cobol' or prof1 = 'pascal' or prof2 = 'cobol' or prof2 = 'pascal';
```

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

```
select count(name) as PROGRAMMERS from Programmer where prof1 != 'c' and prof1 != 'pascal' and prof2 != 'c' and prof2 != 'pascal';
```

22) How old is the oldest male programmers?

```
select max(floor((curdate() - dob)/365)) as OLD_MALE_AGE from Programmer where sex = 'm';
```

23) What is the average age of female programmers?

```
select floor(avg(floor((curdate() - dob)/365))) as FEMALE_AGE 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((curdate() - 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 curdate() = month(dob);
```

26) How many female programmers are there?

```
select count(name) as FEMALE_PROGRAMMERS from Programmer where sex = 'f';
```

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

```
select distinct prof1 as LANGUAGES from Programmer where sex='m' union select  
distinct prof2 as LANGUAGES from Programmer where sex='m';
```

28) What is the Average salary?

```
select avg(salary) as AVERAGE_SALARY from Programmer;
```

29) How many people draw 2000 to 4000?

```
select name from Programmer where salary >= 2000 or salary <= 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) as FEMALE_PROGRAMMERS from Programmer where sex='f' and  
(prof1='c' or prof2='c') and ((curdate() -dob)/365) > 24;
```

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

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

select * from Programmer where floor((curdate() - 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((curdate()-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;

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

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

38) Display the institute's names from the studies table without duplicates?

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

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

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

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

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

select min(length(name)) as SHORTNAME from Programmer;

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

select avg(dcost) as AVERAGE_COST 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, curdate() as DATE_OF_BIRTH, doj as DATE_OF_JOIN 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) like 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 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, dob, doj from Programmer where month(dob) = month(doj);

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

select title as packages from Software where title like '% %';

QUERIES-II

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

select dev_in ,count(title) 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(name) from Programer group by sex ;

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

select dev_in as language,count(title) as noofpack 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) as prno 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) as prno from programmer group
by to_char(doj,'yy');

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

select substr(dob,4,3) as monthofbirth,count(name) as prno from programmer
group by substr(dob,4,3);

8) Display the number of people joined in each month.

Select substr(doj,4,3) as monthofjoin,count(name) as prno from programmer
group by substr(doj,4,3);

9) Display the language wise counts of prof1.

Select prof1 as language, count(prof1) as prof1count from programmer
group by prof1;

10) Display the language wise counts of prof2.

Select prof2 as language, count(prof2) as prof2count from programmer
group by prof2;

11) Display the number of people in each salary group.

Select salary,count(name) as people from programmer group by salary;

12) Display the number of people who studied in each institute.

Select splace as institute,count(name) as people from studies group by splace;

13) Display the number of people who studied in each course.

Select course as study,count(name) as people 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) as totcost from software group by dev_in;

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

Select dev_in as language,sum(scost) as sellcost from software group by dev_in;

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

Select name as prname,sum(dcost) as totcost from software group by name;

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

Select name as prname, sum(scost*sold) as salesval from software group by name;

18) Display the number of packages developed by each programmer.

Select name as pname,count(title) as totpack from software group by name;

19)Display the sales cost of packages developed by each programmer language wise.

Select sum(scost) as sellcost from software group by dev_in;

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

Select name pname,min(dcost) cheapest,max(dcost) costliest 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 as language,avg(dcost) as avgdevcost,avg(scost) as avgsellcost,avg(scost) as pricepercpy from software group by dev_in;

22)Display each institute name with number of courses, average cost per course.

Select splace as institute,count(course) as noofcours,avg(ccost) as avgcostpercour from studies group by splace;

23) Display each institute name with number of students.

select splace as institute,count(name) as noofstud from studies group by splace;

24)Display names of male and female programmers.

Select name as pname,sex as sex from programmer order by sex;

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

select name as pname,title as package from software order by name;

26) Display the number of packages in each language.

select count(title) as noofpack,dev_in as language 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) as noofpack, dev_in as language from software where dcost < 1000
group by dev_in;

28) Display the average difference between scost and dcost for each language.

select dev_in as language, avg(dcost - scost) as diff from software group by dev_in;

29) Display the total scost, dcost and amount to be 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 unionselect prof2from programmer  
group by prof2having prof2 not in (select prof1 from programmer)and count(prof2)=1;
```

7) Who is the youngest 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?

10) Which female programmer earns more than 3000/- but does not know c, c++, oracle or dbase?

```
select * from programmer where sex like '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 having count(name)<(select avg(count(name)) from studies group by course) group by course;

16) Which institute conducts the above course?

Select splace from studies where course in (select course from studies having count(name) < (select avg(count(name)) from studies group by course) 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 highest 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);