

VENNILA.K

```
create database coe;
```

```
use coe;
```

```
-- create table programmer
```

```
create table Programmer(  
name varchar(8) not null,  
dob date not null,  
doj date not null,  
sex varchar(2) not null,  
prof1 varchar(8) ,  
prof2 varchar(8),  
salary numeric(4)  
);
```

```
-- insert values
```

```
INSERT INTO Programmer (name, dob, doj, sex, prof1, prof2, salary) VALUES
```

```
('somedutt', '1966-04-21', '1992-04-21', 'm', 'pascal', 'basic', 320),
```

```
('vennila', '2002-10-03', '2022-03-21', 'f', 'adhar', 'basic' , 234);
```

```
INSERT INTO Programmer VALUES
```

```
('nivas', '2002-12-12', '2024-01-22', 'm', 'pan', 'pascal', 999),
```

```
('vinuja', '2001-05-22', '2024-02-22', 'f', 'adhar', 'basic', 444);
```

```
-- create table software
```

```
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  
( 'somdutt','system','basic',399.95,6000,43),  
( 'vennila','web','html',398.95,5000,42),  
( 'nivas','medical','css',397.95,4000,41),  
( 'sneha','booking','js',396.95,3000,40),  
( 'sri','parking','react',395.95,2000,44);
```

```
-- create table studies
```

```
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
```

```
('somdutt','sabhari','pgdca',4500),  
('vennila','covai','html',5000),  
('nivas','pollachi','css',4000),  
('sneha','chennai','js',3500),  
('sri','pondi','react',2500);
```

----- Query 1 -----

-- 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 programmer;
```

-- 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 programmer p join studies s  
on p.name=s.name  
where s.course='dcs';
```

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

```
select Max(sold) as Highest_copies_sold 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)=1;
```

-- 6) Display lowest course fee.

```
select min(ccost) from studies;
```

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

```
select count(p.name) from programmer p
join studies s on p.name=s.name
where s.course='pgdca';
```

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

```
select sum(sold* scost) as reveue from software where dev_in='html';
```

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

```
select title from software where name='vennila';
```

-- 10) How many programmers studied at SABHARI.

```
select count(*) as count from studies where splace='SABHARI';
```

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

select * from software where sold > 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) as costliest from software;

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

select * from software where scost*sold>dcost;

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

select count(name) from software where dev_in='html';

-- 16) How many programmers studies at paragathi?

select * from studies where splace="paragathi";

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

select count(*) from studies where ccost between 1500 and 10000;

-- 18) What is the average course fee

```
select avg(ccost) as avgfee from studies;
```

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

```
select * from programmer where prof1='pascel' or prof2='pascal';
```

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

```
select * from programmer where prof1 in ('cobol','pascal') or prof2 in ('cobol','pascal');
```

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

```
select count(*) from programmer where prof1 not in('pascal','cobol') and prof2 not in('pascel','cobol');
```

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

```
select max( timestampdiff(year,dob,curdate())) from programmer where sex='m';
```

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

```
select avg(timestampdiff(year,dob,curdate())) from programmer where sex='f';
```

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

```
select timestampdiff(year,dob,curdate()) as experience from programmer order by experience desc;
```

-- 25) Who are the programmers who celebrate their birthday during the curr

```
select name from programmer where timestampdiff(month,dob,curdate())=0;
```

-- 26) How many female programmers are there?

```
select count(*) from programmer where sex='f';
```

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

```
select prof1,prof2 from programmer where sex='m';
```

```
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) from programmer;
```

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

```
select count(*) from programmer where salary between 2000 and 4000;
```

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

select name 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(*) from programmer where prof1 ='c' or prof2='c' and
timestampdiff(year,dob,curdate())>24 and sex='f';

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

select name from programmer where timestampdiff(week,dob,curdate()) between 0 and 7;

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

select * from programmer where timestampdiff(year,doj,curdate())<1;

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

select * from programmer 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 title from software where sold=0;

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

select scost from software where name='vennila';

-- 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 count(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 "%n%n" or name like "n%n" or name like "%nn%" or name like "n%n%";

-- 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 count(*) from programmer where (prof1='cobol' or prof2='cobol') and sex='f' and timestampdiff(year,doj,curdate())>2;

-- 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?

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

```
select name from programmer where month(dob)=12 or day(dob)=31;
```

-- 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) as diff from software order by diff 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 name from software where length(title)>1;
```

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

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

```
select dev_in as language ,count(*) from software group by dev_in;
```

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

```
select name,count(*) from software group by name;
```

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

```
select sex,count(*) from programmer group by sex;
```

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

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

```
select year(dob) as year ,count(*) as number_of_people from programmer group by year(dob);
```

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

```
select year(doj) joined_year ,count(*) as number_of_people from programmer group by(doj);
```

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

```
select month(dob) as month ,count(*) as number_of_people from programmer group by dob ;
```

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

```
select month(doj) as month ,count(*) as number_of_people from programmer group by doj ;
```

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

```
select prof1,count(*) from programmer group by prof1;
```

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

```
select prof2,count(*) as no_of_people from programmer group by prof2;
```

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

```
select salary,count(*) as no_of_people from programmer group by salary;
```

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

```
select splace,count(*) as no_of_people from studies group by splace;
```

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

```
select course,count(*) as no_of_people from studies group by course;
```

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

```
select dev_in ,sum(dcost) as total_development_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 software group by dev_in;
```

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

```
select name ,sum(scost) as cost from software group by name;
```

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

```
select name,sum(scost*sold) as total_development_cost from software group by name;
```

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

```
select name,count(title) as package 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 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),avg(scost/sold) from software group by dev_in;
```

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

```
select splace ,count(*) as course ,avg(ccost) from studies group by splace;
```

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

```
select splace ,count(name) as no_of_student from studies group by splace;
```

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

```
select name,sex from programmer group 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 dev_in,count(title) as no_of_package 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(*) from software where dcost <4000 group by dev_in;
```

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

```
select dev_in , avg(dcost-scost) as avg_between_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 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 name,avg(salary),min(salary),max(salary) from programmer where salary>300 group by  
name;
```

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

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

use coe;

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 in (Select max(salary) from programmer where prof1='cobol' or prof2='cobol' and sex='f');

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

select name,prof1,salary from programmer where (prof1,salary) in (select max(salary),prof1 from programmer group by prof1);

-- 4) Who is the LEAST experienced programmer?

select name,timestampdiff(year,doj,curdate()) as experience from programmer where timestampdiff(year,doj,curdate()) =(select min(timestampdiff(year,doj,curdate())) from programmer);

-- 5) Who is the MOST experienced programmer?

select name,timestampdiff(year,doj,curdate()) as experience from programmer where timestampdiff(year,doj,curdate()) =(select max(timestampdiff(year,doj,curdate())) from programmer);

-- 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 name,prof1,prof2,timediff(year,dob,curdate()) as age from programmer
```

```
where timediff (year,dob,curdate()) =(select min(timediff(year,dob,curdate())) from  
programmer where prof1='DBASE' or prof2='DBASE');
```

-- 8) Which institute has MOST NUMBER of students?

```
select splace from studies group by splace having splace in (select max(splace) from studies group  
by splace);
```

-- 9) Who is the above programmer?

-- doubt

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

```
select name from programmer where sex='f' and salary>=3000 and (prof1 not in  
( 'c','c++','oracle','dbase')) or (prof1 not in ('c','c++','oracle','dbase'));
```

-- 11) Which is the COSTLIEST course?

```
select course,ccost 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, ccost from studies where ccost =(select max(ccost) from studies);
```

-- 15) Which course has below AVERAGE number of students? //doubt

```
select course from studies group by course having count(course) <(select avg(course) from studies group by course) ;
```

-- 16) Which institute conducts the above course?

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

-- 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,title,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 as highest_sales_amount from software where scost= (select max(scost) from software);
```

-- 23) Which is the COSTLIEAST package developed in PASCAL?

```
select title,dev_in from software where dcost =(Select max(dcost) from software where dev_in='html');
```

-- 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(title) =(select max(title) from software);

-- 26) Who is the author of the COSTLIEST package?

select name 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 scost*sold > 2*dcost;

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

select name,dcost 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 year(dob) like 2002);
```

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

```
select name,max(sold),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 year(doj) like 1992);
```

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

```
select year(dob) from programmer where year(dob)=(select max( year(dob)) from programmer);
```

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

```
select month(doj) from programmer where month(doj)=(select max(month(doj)) from programmer);
```

-- 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 like 'f');
```

