

# Assignment on SQL

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## Summary:

In this assignment, you are going to write SQL queries for each question that are given below. If you are having your own system you can install any database software like MySQL, MSSQL, Oracle, etc and create tables that are given below with the same structure. Sample data's that are provided below for those who are not having their own PC in home, to understand what type of data's will be there in the tables and you can insert the values as what you like. The purpose of this assignment is to assess your understanding of RDBMS concepts and how you are going to apply SQL Queries for each scenario that is given below.

## Table structure :

1) Table Name	Programmer		
name	not null	varchar2(8)	name
dob	not null	date	date of birth
doj	not null	date	date of joining
sex	not null	varchar2(1)	male/ female
prof1		varchar2(8)	known language 1
prof2		varchar2(8)	known language 2
salary	not null	number(4)	salary

Sample Data						
somdutt	21-Apr-66	21-Apr-92	m	pascal	basic	3200

2) Table Name	Software		
name	not null	varchar2(8)	name
title	not null	varchar2(20)	developed project name
dev_in	not null	varchar2(8)	language developed
scost		number(7,2)	software cost
dcost		number(5)	development cost
sold		number(3)	number of software sold

Sample Data					
somdutt	parachutes	basic	399.95	6000	43

3) Table Name	Studies		
name	not null	varchar2(8)	name
splace	not null	varchar2(9)	studies place
course	not null	varchar2(5)	course studies
ccost	not null	varchar2(5)	course cost

Sample Data			
somdutt	sabhari	pgdca	4500
devdutt	bdps	dcs	5000

### Table quires:

Table 1:

```
CREATE TABLE Programmer(
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 (4));
```

```
INSERT into Programmer (name,dob,doj,sex,prof1,prof2,salary)
VALUES ('Somdutt','1966-04-22','1992-06-22','m','pascal','basic',3200),
('Ram','1966-05-22','1992-05-22','m','c#','c++',4000),
('Diva','1966-06-22','1992-06-22','f','c','delphi',4200),
('Riva','1966-07-24','1992-07-24','f','c','basic',3100);
```

1 SELECT*FROM Programmer;						
Name	dob	doj	sex	prof1	prof2	salary
Somdutt	21-apr-66	21-apr-92	m	pascal	basic	3200
Ram	22-may-66	22-may-92	m	c#	c++	4000
Diva	23-june-66	23-june-92	f	c	delphi	4200
Riva	24-july-66	24-july-92	f	c	basic	3100

Table 2:

```
CREATE TABLE software (  
  Name varchar(8) not NULL,  
  Title varchar(20) NOT NULL,  
  Dev_in varchar(8) NOT NULL,  
  Scost float(7,2),  
  Dcost int(5),  
  Sold int(3) );
```

```
INSERT INTO software ( name,title,dev_in,scost,dcost,sold )  
VALUES('Somdutt','parachute','basic',399.5,6000,43),  
('Ram','kite','c++',459.66,4000,45),  
('Diva','top','Delphi',567.09,8000,56),  
('Riva','baloon','basic',395.86,9000,67);
```

```
1 SELECT*FROM software;
```

Name	Title	Dev_in	Scost	Dcost	Sold
Somdutt	parachute	basic	399.5	6000	43
Ram	kite	c++	459.66	4000	45
Diva	top	Delphi	567.09	8000	56
Riva	baloon	basic	395.86	9000	67

Table 3:

```
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 (name,splace,course,ccost)  
VALUES('Somdutt','Sabhari','pgdca',4500),  
('Ram','bdb's','dcs',5000),  
('Diva','chen','pgdca',4000),  
('Riva','madu','dcs',3500);
```

```
1 SELECT *FROM Studies;
```

i	name	Splace	Course	Ccost
	Somduitt	Sabhari	pgdca	4500
	Ram	bdbb	dcs	5000
	Diva	chen	pgdca	4000
	Riva	madu	dcs	3500

Additional inputs:

Table 1:

```
INSERT INTO programmer(name,dob,dof,sex,prof1,prof2,salary) values
('ANAND','1966-04-12','1992-04-14','M','PASCAL','BASIC',3200),
('ALTAf','1964-07-02','1990-11-19','M','CLIPPER','COBOL',2800),
('JULIANA','1960-01-12','1990-04-24','F','COBOL','DBASE',3000),
('KAMALA','1968-10-10','1992-01-06','F','C','DBASE',2900),
('MARY','1970-06-24','1991-02-02','F','CPP','ORACLE',4500),
('NELSON','1969-09-05','1991-04-09','M','COBOL','DBASE',2500),
('PATTRICK','1965-11-06','1990-04-10','M','PASCAL',NULL,2800),
('QADIR','1965-08-05','1989-04-09','M','ASSEMBLY','C',3000),
('RAMESH','1967-05-07','1991-02-01','M','PASCAL','DBASE',3200),
('REBECCA','1967-01-07','1990-12-10','F','BASIC','COBOL',2500);
```

Table 2:

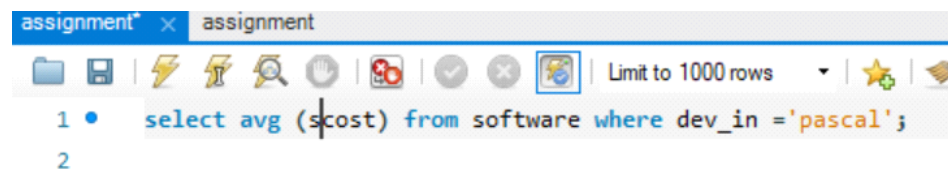
```
insert into Software ( name, title, dev_in, scost, dcost, sold ) values
( 'MARY', 'README', 'CPP', 100.00, 1200, 84 ),
( 'ANAND', 'PARACHUTES', 'BASIC', 399.95, 6000, 43 ),
( 'ANAND', 'VIDEOTITLING', 'PASCAL', 7500.00, 16000, 9 ),
( 'JULIANA', 'INVENTORY', 'COBOL', 3000.00, 3500, 0 ),
( 'KAMALA', 'PAYROLLPRG', 'DBASE', 9000.00, 20000, 7 ),
( 'MARY', 'FINANCIALACC', 'ORACLE', 18000.00, 85000, 4 ),
( 'MARY', 'CODEGENRRATOP', 'C', 4500.00, 20000, 23 ),
( 'PATTRICK', 'README', 'CPP', 300.00, 1200, 84 ),
( 'QADIR', 'BOMBSAWAY', 'ASSEMBLY', 750.00, 5000, 11 ),
( 'QADIR', 'VACCINES', 'C', 1900.00, 3400, 21 ),
( 'RAMESH', 'HOTLIMGMT', 'DBASE', 12000.00, 35000, 4 ),
( 'RAMESH', 'DEADLEE', 'PASCAL', 599.95, 4500, 73 ),
( 'REMITHA', 'PCUTILITIES', 'C', 725.00, 5000, 51 ),
( 'REMITHA', 'TSRHELPPKG', 'ASSEMBLY', 2500.00, 6000, 7 ),
( 'REVATHI', 'HOSPITALMGMT', 'PASCAL', 1100.00, 75000, 2 ),
( 'VIJAYA', 'TSREditor', 'C', 900.00, 700, 6 );
```

Table 3:

insert into Studies ( name, splace, course, ccost ) values  
 ( 'ANAND', 'SABHARI', 'PGDCA', 4500 ),  
 ( 'ALTAF', 'COIT', 'DCA', 7200 ),  
 ( 'JULIANA', 'BITS', 'MCA', 22000 ),  
 ( 'KAMALA', 'PRAGATHI', 'DCP', 5000 ),  
 ( 'MARY', 'SABHARI', 'PGDCA', 4500 ),  
 ( 'NELSON', 'PRAGATHI', 'DAP', 6200 ),  
 ( 'PATRICK', 'PRAGATHI', 'DCAP', 5200 ),  
 ( 'QADIR', 'APPLE', 'HDCP', 14000 ),  
 ( 'RAMESH', 'SABHARI', 'PGDCA', 4500 ),  
 ( 'RESECCA', 'BRILLIANT', 'DCAP', 11000 ),  
 ( 'REMITHA', 'BDPS', 'DCS', 6000 ),  
 ( 'VIJAYA', 'BDPS', 'DCA', 48000 );

## QUERIES – I:

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



Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	avg (scost)			
	3066.650004			

2) Display the names and ages of all programmer.

```

1
2 • SELECT name, FLOOR(DATEDIFF(NOW(), `dob`)/365) AS age
3 FROM programmer;
4
5

```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	name	age		
	Riva	-44		
	ANAND	-44		
	ALTAF	-42		
	JULIANA	-37		
	KAMALA	-46		
	MARY	-45		
	NELSON	-43		
	PATRICK	-41		
	QADIR	-40		
	RAMESH	-44		
	RESECCA	-42		
	REMITHA	-40		
	VIJAYA	-48		

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

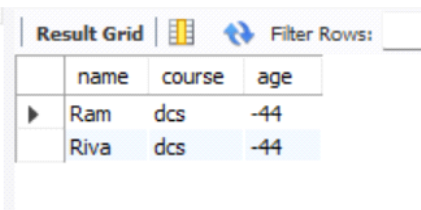
```
select studies.name, studies.course, floor(datediff(now(), `dob`)/365) as age
```

```
from studies
```

```
join programmer
```

```
on studies.name = programmer.name
```

```
where course = 'dcs';
```

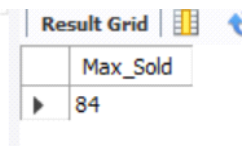


	name	course	age
▶	Ram	dcs	-44
	Riva	dcs	-44

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

```
select max(sold) as max_sold
```

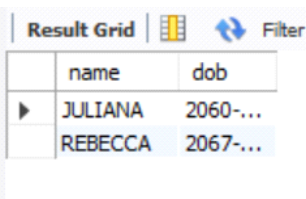
```
from software;
```



	Max_Sold
▶	84

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

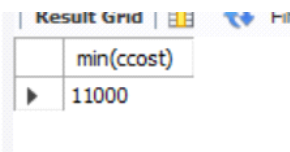
```
select name, dob from programmer where month(dob) = 1;
```



	name	dob
▶	JULIANA	2060-...
	REBECCA	2067-...

6) Display lowest course fee.

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



	min(ccost)
▶	11000

7) How many programmer has done PGDCA course.

Select count(name) from studies where course ='pgdca';

Result Grid	
	count(name)
▶	5

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

select sum(sold \* scost ) from software where dev\_in ='c';

	sum(sold * scost )
▶	185775.00

9) Display the details of software developed by Ramesh?

select \* from software where name ='ramesh' ;

Result Grid

Filter Rows:

Export:

Wrap C

	Name	Title	Dev_in	Scost	Dcost	Sold
▶	RAMESH	HOTLINGMT	DBASE	12000.00	35000	4
	RAMESH	DEADLEE	PASCAL	599.95	4500	73

10) How many programmers studied at SABHARI.

select count(name) from studies where splace ='sabhari'

Result Grid	
	count(name)
▶	4

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

select \* from software where (scost \*sold) > 20000;

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	Name	Title	Dev_in	Scost	Dcost	Sold
▶	Ram	kite	c++	459.66	4000	45
	Diva	top	Delphi	567.09	8000	56
	Riva	baloon	basic	395.86	9000	67
	ANAND	VIDEOTITLING	PASCAL	7500.00	16000	9
	KAMALA	PAYROLLPRG	DBASE	9000.00	20000	7
	MARY	FINANCIALACC	ORACLE	18000.00	85000	4
	MARY	CODEGENRRATOP	C	4500.00	20000	23
	PATTRICK	README	CPP	300.00	1200	84
	QADIR	VACCINES	C	1900.00	3400	21
	RAMESH	HOTLINGMT	DBASE	12000.00	35000	4
	RAMESH	DEADLEE	PASCAL	599.95	4500	73
	REMITHA	PCUTILITIES	C	725.00	5000	51

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

select name , round(dcost/scost) as soldreturn from software;

Result Grid		
	name	soldreturn
▶	Somdutt	15
	Ram	9
	Diva	14
	Riva	23
	MARY	12

Result 47 x

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

select max(scost) from software where Dev\_in like 'basic';

Result Grid	
	max(scost)
▶	399.95

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

select \* from software where Dcost < (scost \* sold);

Result Grid						
	Name	Title	Dev_in	Scost	Dcost	Sold
▶	VIJAYA	TSREditor	C	900.00	700	6
	MARY	README	CPP	100.00	1200	84
	PATRICK	README	CPP	300.00	1200	84
	QADIR	VACCINES	C	1900.00	3400	21
	Ram	kite	c++	459.66	4000	45
	RAMESH	DEADLEE	PASCAL	599.95	4500	73
	QADIR	BOMBSAWAY	ASSEM...	750.00	5000	11
	REMITHA	PCUTILITIES	C	725.00	5000	51
	Somdutt	parachute	basic	399.50	6000	43
	ANAND	PARACHUTES	BASIC	399.95	6000	43
	REMITHA	TSRHELPPKG	ASSEM...	2500.00	6000	7
	Diva	top	Delphi	567.09	8000	56
	Riva	baloon	basic	395.86	9000	67
	ANAND	VIDEOTITLING	PASCAL	7500.00	16000	9
	KAMALA	PAYROLLPRG	DBASE	9000.00	20000	7

15) How many packages were developed in dbase?

select count(name) as no\_of\_Dbase from software where dev\_in like 'Dbase';

Result Grid	
	no_of_Dbase
▶	2

16) How many programmers studies at paragathi?

select count(name) from studies where splace ='pragathi';



Result Grid	
	count(name)
▶	3

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

select count(name) from studies where ccost between 5000 and 10000;

Result Grid	
	count(name)
▶	6

18) What is the average course fee?

select avg(ccost) from studies;

Result Grid	
	avg(ccost)
▶	9693.75

19) Display the details of programmers knowing c?

select \* from programmer where prof1='c' or prof2='c';

Result Grid

Filter Rows:

Export:

Wrap Cell Conte

	name	dob	doj	sex	prof1	prof2	salary
▶	Diva	2066-...	1992-06-22	f	c	delphi	4200
	Riva	2066-...	1992-07-24	f	c	basic	3100
	KAMALA	2068-...	1992-01-06	F	C	DBASE	2900
	QADIR	2065-...	1989-04-09	M	ASSEMBLY	C	3000

20) How many programmers know either Cobol or Pascal?

select count(name) from programmer where prof1='cobol' or prof2='pascal' or prof1 ='pascal' or prof2='cobol';

Result Grid	
	count(name)
▶	8

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

select count(name) from programmer where not prof1='c' and not prof1 = 'pascal' and not prof2 = 'c' and not prof2= 'pascal' ;

Result Grid	
	count(name)
▶	6

22) How old is the oldest male programmers?

select max(floor(datediff(now(),`dob`)/365) ) as max\_age from programmer ;

Result Grid	
	max_age
▶	52

23) What is the average age of female programmers?

select avg(floor(datediff(`dob`,now())/365) ) as average\_age from programmer where sex ='f' ;

Result Grid	
	average_age
▶	26.1667

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

select name,(floor(datediff(now() ,`doj`)/365) ) as experience from programmer order by name desc;

Result Grid	
	Filter Rows:
name	experience
QADIR	33
PATTRICK	32
NELSON	31
MARY	32
KAMALA	31
JULIANA	32
Diva	30
ANAND	30
ALTAF	32

Result 19 ×

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

select name from programmer where month (dob) = month(sysdate());

Result Grid	
	name

26) How many female programmers are there?

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

Result Grid	
	count(name)
▶	6

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

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

Result Grid		
	prof1	prof2
▶	pascal	basic
	c#	c++
	PASCAL	BASIC
	CLIPPER	COBOL
	COBOL	DBASE
	PASCAL	NULL
	ASSEMBLY	C
	PASCAL	DBASE

28) What is the Average salary?

select avg(salary) from programmer ;

Result Grid	
	avg(salary)
▶	3207.1429

29) How many people draw 2000 to 4000?

select name from programmer where salary between 2000 and 4000;

Result Grid	
	name
▶	Somdutt
	Ram
	Riva
	ANAND
	ALTAF
	JULIANA
	KAMALA
	NELSON
	PATRICK
	QADIR
	RAMESH
	REBECCA

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');

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	Name	dob	doj	sex	prof1	prof2	salary
▶	Ram	2066-05-22	1992-05-22	m	c#	c++	4000
	Diva	2066-06-22	1992-06-22	f	c	delphi	4200
	Riva	2066-07-24	1992-07-24	f	c	basic	3100
	KAMALA	2068-10-10	1992-01-06	F	C	DBASE	2900
	MARY	1970-06-24	1991-02-02	F	CPP	ORACLE	4500
	QADIR	2065-08-05	1989-04-09	M	ASSEMBLY	C	3000

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



select count(name) from programmer where sex='f' and ((sysdate() - dob)/365) >24 and (prof1 ='c' or prof2 ='c') ;

Result Grid	
	count(name)
▶	3

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

select name from programmer where 0< DAYOFMONTH(`dob`) - DAYOFMONTH(sysdate())<7 and month(`dob`) = month(sysdate());

<




Result Grid   Filter Rows:

	name

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

select \* from programmer where ((sysdate() - `doj`)/365)<1 ;

<




Result Grid   Filter Rows:  Export:  W

	Name	dob	doj	sex	prof1	prof2	salary

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

select \* from programmer where ((sysdate() - `doj`)/365)=2;

<





Result Grid   Filter Rows:  Export: 

	Name	dob	doj	sex	prof1	prof2	salary

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

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



<

Result Grid   Filter Rows:  Export:  Wrap Cell Content: 

	Name	Title	Dev_in	Scost	Dcost	Sold	loss_amount
▶	JULIANA	INVENTORY	COBOL	3000.00	3500	0	3500.00
	MARY	FINANCIALACC	ORACLE	18000.00	85000	4	13000.00
	REVATHI	HOSPITALMGMT	PASCAL	1100.00	75000	2	72800.00

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

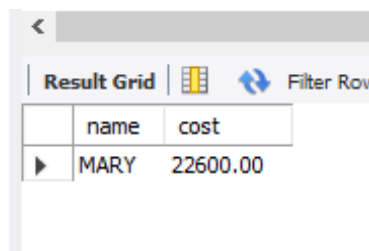
select dev\_in from software where sold =0 ;

Result Grid   F

	dev_in
▶	COBOL

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

select name,sum(scost) as cost from software where name = 'mary' ;

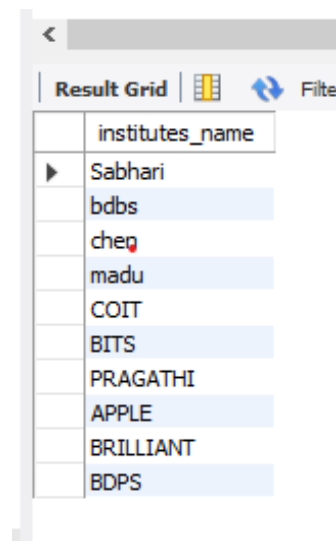


The screenshot shows a database query result grid. At the top, there is a toolbar with a back arrow, a 'Result Grid' tab, a grid icon, a refresh icon, and a 'Filter Rows' button. Below the toolbar is a table with two columns: 'name' and 'cost'. The first row of data shows 'MARY' in the 'name' column and '22600.00' in the 'cost' column.

	name	cost
▶	MARY	22600.00

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

select distinct splace as institutes\_name from studies ;

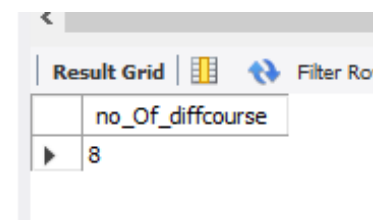


The screenshot shows a database query result grid. At the top, there is a toolbar with a back arrow, a 'Result Grid' tab, a grid icon, a refresh icon, and a 'Filter Rows' button. Below the toolbar is a table with one column: 'institutes\_name'. The first row of data shows 'Sabhari'. The subsequent rows are highlighted in blue and contain the following names: 'bdbbs', 'cheg', 'madu', 'COIT', 'BITS', 'PRAGATHI', 'APPLE', 'BRILLIANT', and 'BDPS'.

	institutes_name
▶	Sabhari
	bdbbs
	cheg
	madu
	COIT
	BITS
	PRAGATHI
	APPLE
	BRILLIANT
	BDPS

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

select count(distinct course) as no\_Of\_diffcourse from studies ;

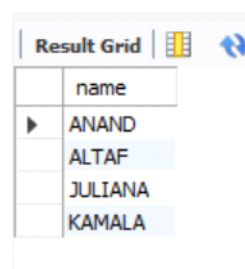


The screenshot shows a database query result grid. At the top, there is a toolbar with a back arrow, a 'Result Grid' tab, a grid icon, a refresh icon, and a 'Filter Rows' button. Below the toolbar is a table with one column: 'no\_Of\_diffcourse'. The first row of data shows the value '8'.

	no_Of_diffcourse
▶	8

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%' and name like '%A%A%';



The screenshot shows a database query result grid. At the top, there is a toolbar with a 'Result Grid' tab, a grid icon, a refresh icon, and a 'Filter Rows' button. Below the toolbar is a table with one column: 'name'. The first row of data shows 'ANAND'. The subsequent rows are highlighted in blue and contain the following names: 'ALTAF', 'JULIANA', and 'KAMALA'.

	name
▶	ANAND
	ALTAF
	JULIANA
	KAMALA

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

select name from programmer where char\_length(name) = 5;

Result Grid	
	name
▶	ANAND
	ALTAF
	QADIR

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

select count(name) from programmer where sex='f' and ((sysdate()-`doj`)/365) >2;

Result Grid	
	count(name)
▶	6

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

select min(length(name)) from programmer ;

Result Grid	
	min(length(name))
▶	3

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

select avg(dcost) from software where dev\_in = 'cobol';

Result Grid	
	avg(dcost)
▶	3500.0000

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'),date\_format(doj,'%d-%m-%y') from programmer;

Result Grid				
		Filter Rows:	Export:	
	name	sex	date_format(dob, '%d-%m-%y')	date_format(doj, '%d-%m-%y')
▶	Somdutt	m	22-04-66	22-06-92
	Ram	m	22-05-66	22-05-92
	Diva	f	22-06-66	22-06-92
	Riva	f	24-07-66	24-07-92
	ANAND	M	12-04-66	14-04-92
	ALTAF	M	02-07-64	19-11-90

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

select name from programmer where day(dob)=last\_day(dob);

Result Grid	
	name

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

select name,salary from programmer where not prof1='cobol'and not prof2='cobol'and sex ='m';

Result Grid		
	name	salary
▶	Somdutt	3200
	Ram	4000
	ANAND	3200
	QADIR	3000
	RAMESH	3200

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

select title ,scost,dcost,dcost-scost as diffcost from software order by title desc;



Result Grid				
Filter Rows:				
	title	scost	dcost	diffcost
▶	VIDEOTITLING	7500.00	16000	8500.00
	VACCINES	1900.00	3400	1500.00
	TSRHELPPKG	2500.00	6000	3500.00
	TSREDITOR	900.00	700	-200.00
	top	567.09	8000	7432.91
	README	100.00	1200	1100.00
	README	300.00	1200	900.00
	PCUTILITIES	725.00	5000	4275.00
	PAYROLLPRG	9000.00	20000	11000.00
	PARACHUTES	399.95	6000	5600.05

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);

Result Grid			
Filter Rows:			
	name	dob	doj
▶	Ram	2066-05-22	1992-05-22
	Diva	2066-06-22	1992-06-22
	Riva	2066-07-24	1992-07-24
	ANAND	2066-04-12	1992-04-14

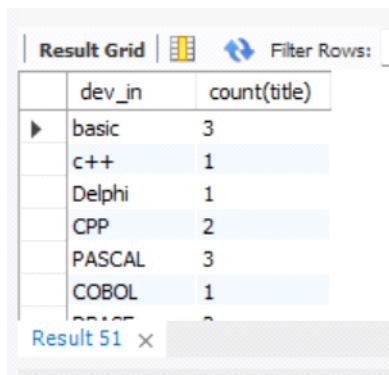
50) Display the names of the packages whose names contain more than 1 word?  
 Select title from software where length(title)>1;

Result Grid	
Filter Rows:	
	title
▶	parachute
	kite
	top
	baloon
	README
	PARACHUTES
	VIDEOTITLING

## QUIRES -II:

1) Display THE NUMBER OF packages developed in EACH language

select dev\_in,count(title) from software group by dev\_in;



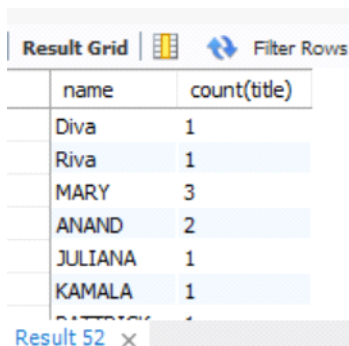
The screenshot shows a 'Result Grid' window with a 'Filter Rows' button. The grid contains two columns: 'dev\_in' and 'count(title)'. The data is as follows:

dev_in	count(title)
basic	3
c++	1
Delphi	1
CPP	2
PASCAL	3
COBOL	1

At the bottom, it says 'Result 51' with a close button.

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

select name,count(title) from software group by name;



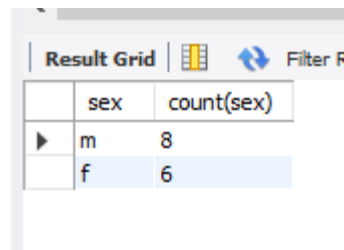
The screenshot shows a 'Result Grid' window with a 'Filter Rows' button. The grid contains two columns: 'name' and 'count(title)'. The data is as follows:

name	count(title)
Diva	1
Riva	1
MARY	3
ANAND	2
JULIANA	1
KAMALA	1

At the bottom, it says 'Result 52' with a close button.

3) Display THE NUMBER OF male and female programmer.

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



The screenshot shows a 'Result Grid' window with a 'Filter Rows' button. The grid contains two columns: 'sex' and 'count(sex)'. The data is as follows:

sex	count(sex)
m	8
f	6

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

select dev\_in ,max(dcost) as costiest\_package,max(scost \* sold) as high\_sell from software group by dev\_in ;

	dev_in	costiest_package	high_sell
▶	basic	9000	26522.62
	c++	4000	20684.70
	Delphi	8000	31757.04
	CPP	1200	25200.00
	PASCAL	75000	67500.00
	COBOL	3500	0.00
	DBASE	35000	63000.00
	ORACLE	85000	72000.00
	C	20000	103500.00

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

select count(Name),year(dob) from programmer group by year(dob);

	count(Name)	year(dob)
▶	5	1966
	1	1964
	1	1960
	1	1968
	1	1970
	1	1969
	2	1965
	2	1967

6) Display THE NUMBER OF people JOINED in EACH YEAR

select count(Name),year(doj) from programmer group by year(doj);

	count(Name)	year(doj)
▶	6	1992
	4	1990
	3	1991
	1	1989

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

select (month(dob)), count(Name) from programmer group by month(dob) order by month(dob);

Result Grid			Filter Rows:
	(month(dob))	count(Name)	
▶	1	2	
	4	2	
	5	2	
	6	2	
	7	2	
	8	1	
	9	1	
	10	1	
	11	1	

Result 29 ×

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

select (month(doj)), count(Name) from programmer group by month(doj) order by month(doj);

Result Grid			Filter Rows:
	(month(doj))	count(Name)	
▶	1	1	
	2	2	
	4	5	
	5	1	
	6	2	
	7	1	
	11	1	
	12	1	

9) Display the language wise COUNTS of prof1.

select distinct prof1,count(PROF1) from programmer group by prof1 order by prof1;

Result Grid			Filter Rows:
	prof1	count(PROF1)	
▶	ASSEMBLY	1	
	BASIC	1	
	c	3	
	c#	1	
	CLIPPER	1	
	COBOL	2	
	CPP	1	
	pascal	4	

Result 33 ×

10) Display the language wise COUNTS of prof2.

select distinct prof2,count(PROF2) from programmer group by prof2 order by prof2;

Result Grid			Filter Rows
	prof2	count(PROF2)	
▶	NULL	0	
	basic	3	
	C	1	
	c++	1	
	COBOL	2	
	DBASE	4	
	delphi	1	
	ORACLE	1	

Result 34

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

select distinct salary,count(salary) from programmer group by salary order by salary;

Result Grid			Filter Rows
	salary	count(salary)	
	2800	2	
	2900	1	
	3000	2	
	3100	1	
	3200	3	
	4000	1	
	4200	1	
	4500	1	

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

select distinct Splace,count(name) from studies group by Splace order by Splace;

Result Grid			Filter Rows
	Splace	count(name)	
	BDPS	2	
	BITS	1	
	BRILLIANT	1	
	chen	1	
	COIT	1	
	madu	1	
	PRAGATHI	3	
	Sabhari	4	

Result 36

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

select distinct Course,count(name) from studies group by Course order by Course;

Result Grid			Filter Rows:
	Course	count(name)	
▶	DAP	1	
	DCA	2	
	DCAP	2	
	DCP	1	
	dcs	3	
	HDCP	1	
	MCA	1	
	pgdca	5	

Result 37 ×

14) Display the TOTAL development COST of the packages developed in EACH language.  
 select distinct Dev\_in ,sum(dcost) from software group by Dev\_in;

Result Grid			Filter Rows:
	Dev_in	sum(dcost)	
▶	basic	21000	
	c++	4000	
	Delphi	8000	
	CPP	2400	
	PASCAL	95500	
	COBOL	3500	
	DBASE	55000	
	ORACLE	85000	
	C	29100	

Result 38 ×

15) Display the selling cost of the package developed in EACH language.  
 select distinct Dev\_in ,sum(Scost\*sold) from software group by Dev\_in;

Result Grid			Filter Rows:
	Dev_in	sum(Scost*sold)	
▶	basic	60898.97	
	c++	20684.70	
	Delphi	31757.04	
	CPP	33600.00	
	PASCAL	113496.35	
	COBOL	0.00	
	DBASE	111000.00	
	ORACLE	72000.00	
	C	185775.00	

Result 39 ×

16) Display the cost of the package developed by EACH programmer.  
 select distinct Name ,sum(Dcost) from software group by name;

Result Grid | Filter Rows:

Name	sum(Dcost)
Somdutt	6000
Ram	4000
Diva	8000
Riva	9000
MARY	106200
ANAND	22000
JULIANA	3500
KAMALA	20000
PATTRICK	1200

Result 41 x

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

select distinct Name ,sum(Scost\*sold) from software group by name;

Result Grid | Filter Rows:

Name	sum(Scost*sold)
Somdutt	17178.50
Ram	20684.70
Diva	31757.04
Riva	26522.62
MARY	183900.00
ANAND	84697.85
JULIANA	0.00
KAMALA	63000.00
PATTRICK	25200.00

Result 42 x

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

select distinct Name ,count(title) from software group by name;

Result Grid | Filter Rows:

Name	count(title)
Somdutt	1
Ram	1
Diva	1
Riva	1
MARY	3
ANAND	2
JULIANA	1
KAMALA	1
PATTRICK	1

Result 40 x

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

select distinct dev\_in ,sum(Dcost) from software group by Dev\_in;

dev_in	sum(Dcost)
basic	21000
c++	4000
Delphi	8000
CPP	2400
PASCAL	95500
COBOL	3500
DBASE	55000
ORACLE	85000
C	29100

20) Display EACH programmers name, costliest package and cheapest packages developed by Him/Her

select name ,min(Dcost) as costlier\_software,max(dcost) as cheap\_software from software group by name;

name	costlier_software	cheap_software
Somdutt	6000	6000
Ram	4000	4000
Diva	8000	8000
Riva	9000	9000
MARY	1200	85000
ANAND	6000	16000
JULIANA	3500	3500
KAMALA	20000	20000
PATRICK	1200	1200

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

select dev\_in ,avg(Dcost) as developmentcost,avg(scost) as average\_selling\_per\_software,avg(scost\*sold) as selling\_cost from software group by Dev\_in;

dev_in	developmentcost	average_selling_per_software	selling_cost
basic	7000.0000	398.436666	20299.656514
c++	4000.0000	459.660004	20684.700165
Delphi	8000.0000	567.090027	31757.041504
CPP	1200.0000	200.000000	16800.000000
PASCAL	31833.3333	3066.650004	37832.116964



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

dev_in	developmentcost	average_selling_per_software	selling_cost
Delphi	8000.0000	567.090027	31757.041504
CPP	1200.0000	200.000000	16800.000000
PASCAL	31833.3333	3066.650004	37832.116964
COBOL	3500.0000	3000.000000	0.000000
DBASE	27500.0000	10500.000000	55500.000000
ORACLE	85000.0000	18000.000000	72000.000000
C	7275.0000	2006.250000	46443.750000
ASSEMBLY	5500.0000	1625.000000	12875.000000

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

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



splace	count(course)	avg(ccost)
Sabhari	4	4500
bdbbs	1	5000
chen	1	4000
madu	1	3500
COIT	1	7200
BITS	1	22000
PRAGATHI	3	5466.666666666667
APPLE	1	14000
BRILLIANT	1	11000

23) Display EACH institute name with NUMBER of students.

select splace ,count(name) as no\_of\_student from studies group by splace;

8

<


Result Grid   Filter Rows:

	splace	count(name)
▶ Sabhari	4	
bdbb	1	
chen	1	
madu	1	
COIT	1	
BITS	1	
PRAGATHI	3	
APPLE	1	
BRILLIANT	1	

Result 47 x

24) Display names of male and female programmers.

select name ,sex from programmer order by sex;



Result Grid   Filter

	name	sex
	Riva	f
	JULIANA	F
	KAMALA	F
	MARY	F
	REBECCA	F
	Somduitt	m
	Ram	m
	ANAND	M
	ALTAF	M
	NELSON	M

programmer 2 x

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

select name ,title as packages from software order by name;

Result Grid   Filter Rows:

	name	packages
▶	ANAND	PARACHUTES
	ANAND	VIDEOTITLING
	Diva	top
	JULIANA	INVENTORY
	KAMALA	PAYROLLPRG
	MARY	README
	MARY	FINANCIALACC
	MARY	CODEGENRRATOP

software 4 x

26) Display the NUMBER of packages in EACH language.

select distinct dev\_in as language, count(title) as No\_of\_packages from software group by Dev\_in ;

Result Grid		
	language	No_of_packages
▶	basic	3
	c++	1
	Delphi	1
	CPP	2
	PASCAL	3
	COBOL	1
	DBASE	2
	ORACLE	1

Result 6 x

27) Display the NUMBER of packages in EACH language for which development cost is less than 1000  
 select distinct dev\_in as language, count(title) as No\_of\_packages from software where dcost <1000 group by Dev\_in ;

Result Grid		
	language	No_of_packages
▶	C	1

28) Display the AVERAGE difference BETWEEN scost and dcost for EACH language.  
 select distinct dev\_in as language ,avg(dcost-scost) from software group by dev\_in;

Result Grid		
	language	avg(dcost-scost)
▶	basic	6601.563334
	c++	3540.339996
	Delphi	7432.909973
	CPP	1000.000000
	PASCAL	28766.683329
	COBOL	500.000000
	DBASE	17000.000000
	ORACLE	67000.000000

Result 10 x

29) Display the TOTAL scost, dcost and amount TO BE recovered for EACH programmer for whose dcost HAS NOT YET BEEN recovered.

SELECT

sum(dcost) AS total\_dcost,  
 sum(scost) AS total\_scost,  
 sum(dcost - (scost \* sold))

FROM software group by name having (sum(dcost) -sum(scost \* sold))>0 ;

Result Grid				
	name	total_dcost	total_scost	sum(dcost - (scost * sold))
▶	JULIANA	3500	3000.00	3500.00
	REVATHI	75000	1100.00	72800.00

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 ;

Result Grid			
	max(salary)	min(salary)	avg(salary)
▶	4500	2500	3207.1429

QUERIES III:

1) Who is the highest paid C programmer?

select name from programmer where salary = (select max(salary) from programmer where prof1='c' or prof2='c');

Result Grid	
	name
▶	Diva

2) Who is the highest paid female cobol programmer?

SELECT

name AS high\_paid\_female\_programmer

FROM

programmer

WHERE

salary = (SELECT

MAX(salary)

FROM

programmer

WHERE

prof1 = 'cobol' OR prof2 = 'cobol')

Result Grid			Filter Rows:
	high_paid_female_programmer	salary	
▶	JULIANA	3000	
	QADIR	3000	

3) Display the name of the HIGEST 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);

Result Grid				Filter Rows:
	name	salary	prof1	
▶	Somdutt	3200	pascal	
	Ram	4000	c#	
	Diva	4200	c	
	ANAND	3200	PASCAL	
	ALTAF	2800	CLIPPER	
	JULIANA	3000	COBOL	
	MARY	4500	CPP	
	QADIR	3000	ASSEMBLY	

programmer 23 x

4) Who is the LEAST experienced programmer?

select

name, floor(datediff(curdate(), `doj`) / 365) as expe

from

programmer

where

floor(datediff(curdate(), `doj`) / 365) = (select

min(floor(datediff(curdate(), `doj`) / 365))

from

programmer);

Result Grid			Filter
	name	expe	
▶	Somdutt	30	
	Ram	30	
	Diva	30	
	Riva	30	30
	ANAND	30	

5) Who is the MOST experienced programmer?

```
select name, floor(datediff(curdate(), `doj`) / 365) as expe from programmer where
floor(datediff(curdate(), `doj`) / 365) = (select max(floor(datediff(curdate(), `doj`) / 365))from
programmer);
```

Result Grid			Filter Ro
	name	expe	
▶	QADIR	33	

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;
```

Result Grid		
	prof1	
▶	c++	
	delphi	
	ORACLE	

7) Who is the YONGEST programmer knowing DBASE?

```
select floor(datediff(curdate(), `doj`) / 365) age, name, prof1, prof2
```

```
from programmer
```

```
where floor(datediff(curdate(), `doj`) / 365) = (select min(floor(datediff(curdate(), `doj`) / 365) )
```

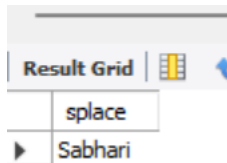
```
from programmer
```

```
where prof1 like 'dbase' or prof2 like 'dbase')
```

Result Grid					Filter Rows:	Ex
	age	name	prof1	prof2		
▶	31	KAMALA	C	DBASE		
	31	NELSON	COBOL	DBASE		

8) Which institute has MOST NUMBER of students?

```
select splace from studies group by splace having count(splace) = (select max(occurrences) from (select splace, count(splace) as occurrences from studies group by splace) as subquery);
```





Result Grid	
	splace
▶	Sabhari

9) Who is the above programmer?

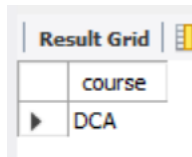
10) Which female programmer earns MORE than 3000/- but DOES NOT know C, C++, Oracle or Dbase?

```
SELECT
    name, sex
FROM
    programmer
WHERE
    sex = 'f'
    AND prof1 NOT in ('c', 'c++', 'oracle', 'dbase')
    AND prof2 NOT in ('c', 'c++', 'oracle', 'dbase');
```

Result Grid				Filter Ro
	name	sex		
▶	REBECCA	F		

11) Which is the COSTLIEST course?

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



Result Grid	
	course
▶	DCA

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

```
select course from studies group by course having count(course) order by count(course) desc limit 1;
```

Result Grid	
	course
▶	pgdca

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

SELECT

splace , ccost

FROM

studies

where ccost< (select avg(ccost) from studies)

Result Grid		
	splace	ccost
▶	Sabhari	4500
	bdbb	5000
	chen	4000
	madu	3500
	SABHARI	4500
	COIT	7200
	PRAGATHI	5000
	SABHARI	4500
studies 9 x		

14) Which institute conducts COSTLIEST course?

SELECT

name , course, ccost

FROM

studies

where ccost= (select max(ccost) from studies);

Result Grid			
	name	course	ccost
▶	ALTAF	DCA	7200

15) Which course has below AVERAGE number of students?

SELECT course, COUNT(course) as num\_students

FROM studies

GROUP BY course



```

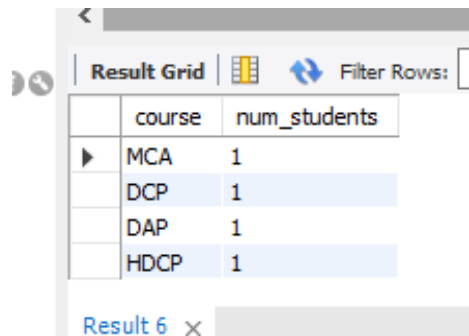
HAVING COUNT(course) < (SELECT AVG(num_students)

FROM (SELECT COUNT(course) as num_students

FROM studies

GROUP BY course) as subquery);

```



Result Grid

	course	num_students
▶	MCA	1
	DCP	1
	DAP	1
	HDCP	1

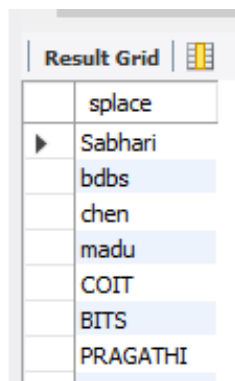
Result 6 x

16) Which institute conducts the above course?

```

SELECT distinct splace from studies;

```



Result Grid

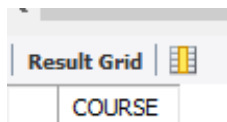
	splace
▶	Sabhari
	bdbb
	chen
	madu
	COIT
	BITS
	PRAGATHI

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

```

SELECT COURSE FROM STUDIES WHERE (SELECT AVG(CCOST)+ 1000 from studies) > 'ccost' > (
(SELECT AVG(CCOST )- 1000 from studies));

```



Result Grid

	COURSE
--	--------

18) Which package has the HIGHEST development cost?

```

select Title from software where Dcost =(select max(dcost) from software);

```

Result Grid	
	Title
▶	FINANCIALACC

19) Which package has the LOWEST selling cost?

select Title from software where Dcost =(select min(dcost) from software);

Result Grid	
	Title
▶	TSREDITOR

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

select name from software where sold =(select min(sold) from software);

Result Grid	
	name
▶	JULIANA

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);

Result Grid		
	dev_in	Scost
▶	ORACLE	18000.00

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 max(dcost-scost) from software));

Result Grid			Filter Rows
	sold	title	
▶	2	HOSPITALMGMT	

23) Which is the COSTLIEAST package developed in PASCAL?

select title , dcost from software where dcost = (select max(dcost) from software where Dev\_in = 'pascal');

Result Grid			Filter Rows
	title	dcost	
▶	HOSPITALMGMT	75000	

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

select dev\_in from software where sold = (select max(sold) from software );

Result Grid		
	dev_in	
▶	CPP	
	CPP	

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

select name, count(name) as count from software group by name order by count desc limit 1 ;

Result Grid			Filter Rows
	name	count	
▶	MARY	3	

26) Who is the author of the COSTLIEST package?

select name , Dcost from software where dcost =(select max(cost) from software);

Result Grid			Filter Rows
	name	Dcost	
▶	MARY	85000	

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

`select (title) from software where sold < (select avg(sold) from software ) ;`

title
VIDEOTITLING
INVENTORY
PAYROLLPRG
FINANCIALACC
CODEGENRRATOP
BOMBSAWAY
VACCINES

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

`select name from programmer where sex= 'f' and salary > (select max(salary) from programmer where sex='m');`

name
Diva
MARY

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

`select prof1, count(prof1) as count from programmer group by prof1 order by count desc limit 1 ;`

prof1	count
pascal	4

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

`select name , dcost, (scost*sold ) from software where (scost * sold > (dcost * 2 ) );`

Result Grid			
	name	dcost	(scost*sold )
▶	Somdutt	6000	17178.50
	Ram	4000	20684.70
	Diva	8000	31757.04
	Riva	9000	26522.62
	MARY	1200	8400.00
	ANAND	6000	17197.85
	ANAND	16000	67500.00

Result 15 x

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

select distinct Name , title from software where Dcost in (select min(dcost ) from software group by Dev\_in);

Result Grid		
	Name	title
▶	Somdutt	parachute
	Ram	kite
	Diva	top
	MARY	README
	ANAND	PARACHUTES
	JULIANA	INVENTORY
	KAMALA	PAYROLLPRG
	MARY	FINANCIALACC

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

select name ,dob from programmer where sex='m' and year(dob)=1965 order by month(dob) , day(dob) limit 1;

Result Grid		
	name	dob
▶	QADIR	1965-08-05

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

select name, dev\_in , dcost from software where scost in (select max(scost) from software group by name) union

select name, dev\_in , dcost from software where scost in (select min(scost) from software group by name);

	name	dev_in	dcost
▶	ANAND	PASCAL	16000
	REVATHI	PASCAL	75000
	RAMESH	PASCAL	4500
	MARY	ORACLE	85000
	Diva	Delphi	8000
	KAMALA	DBASE	20000
	RAMESH	DBASE	35000
	PATTRICK	CPP	1200
	MARY	CPP	1200
	JULIANA	COBOL	3500
	Ram	c++	4000
	QADIR	C	3400
	VIJAYA	C	700
	REMITHA	C	5000
	Somdutt	basic	6000
	Riva	basic	9000
	ANAND	BASIC	6000

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

select \*from programmer where sex ='f'and year(doj)= 1992 order by month(doj),dayofmonth(doj) desc limit 1;

	Name	dob	doj
▶	KAMALA	1968-10-10	1992-01-06

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

select count(year(dob)) as programmer\_count, year(dob) from programmer group by year(dob) order by programmer\_count desc limit 1;

	programmer_count	year(dob)
▶	5	1966

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

select count(MONTH(doj)) as programmer\_count, monthname(doj) from programmer group by monthname(doj) order by programmer\_count desc limit 1;

Result Grid		
	programmer_count	monthname(doj)
▶	5	April

37) In WHICH language are MOST of the programmer's proficient?

with tby as (with tb as (select name ,prof1 from programmer union all select name, prof2 from programmer )

select count(\*) as cnt ,prof1 from tb group by prof1) select prof1 from tby where cnt = (select max(cnt) from tby ) and cnt is not null ;

Result Grid	
	prof1
▶	pascal
	c
	COBOL
	BASIC
	DBASE

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');

Result Grid	
	name
▶	Somdutt
	ANAND
	ALTAF
	NELSON
	PATRICK
	QADIR
	RAMESH

#### Query 4:

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

SELECT name , salary

FROM programmer p1

WHERE (SELECT Count(salary) FROM programmer p2 WHERE p2.salary = p1.salary) > 1 order by salary ;

Result Grid		
	name	salary
▶	NELSON	2500
	REBECCA	2500
	ALTAF	2800
	PATTRICK	2800
	JULIANA	3000
	QADIR	3000
	Somdutt	3200
	ANAND	3200
	RAMESH	3200

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

select \* from software join programmer on software.name= programmer.name where sex ='m' and salary>3000;

Result Grid													
	Name	Title	Dev_in	Scost	Dcost	Sold	Name	dob	doj	sex	prof1	prof2	salary
▶	Somdutt	parachute	basic	399.50	6000	43	Somdutt	1966-04-22	1992-06-22	m	pascal	basic	3200
	Ram	kite	c++	459.66	4000	45	Ram	1966-05-22	1992-05-22	m	c#	c++	4000
	ANAND	PARACHUTES	BASIC	399.95	6000	43	ANAND	1966-04-12	1992-04-14	M	PASCAL	BASIC	3200
	ANAND	VIDEOTITLING	PASCAL	7500.00	16000	9	ANAND	1966-04-12	1992-04-14	M	PASCAL	BASIC	3200
	RAMESH	HOTLINGMT	DBASE	12000.00	35000	4	RAMESH	1967-05-07	1991-02-01	M	PASCAL	DBASE	3200
	RAMESH	DEADLEE	PASCAL	599.95	4500	73	RAMESH	1967-05-07	1991-02-01	M	PASCAL	DBASE	3200

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

select \* from software left join programmer on software.name = programmer.name where sex ='f' and Dev\_in ='delphi' ;

Result Grid													
	Name	Title	Dev_in	Scost	Dcost	Sold	Name	dob	doj	sex	prof1	prof2	salary
▶	Diva	top	Delphi	567.09	8000	56	Diva	1966-06-22	1992-06-22	f	c	delphi	4200

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

select \* from programmer where year(doj) <1990;



Result Grid							
Filter Rows:							
	name	dob	doj	sex	prof1	prof2	salary
▶	QADIR	2065-...	1989-04-09	M	ASSEMBLY	C	3000

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

select \* from programmer where (prof1 ='c' or prof2 = 'c')

and name in (select name from studies where splace ='pragathi') and sex='f';

Result Grid							
Filter Rows:							
	name	dob	doj	sex	prof1	prof2	salary
▶	KAMALA	2068-...	1992-01-06	F	C	DBASE	2900

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

select studies.splace , count(software.title), sum(software.sold), sum(software.sold\*scost) from software,studies where

studies.name = software.name group by studies.splace;

Result Grid				
Filter Rows:				
	splace	count(software.title)	sum(software.sold)	sum(software.sold*scost)
▶	Sabhari	8	283	377572.70
	bdbb	1	45	20684.70
	chen	1	56	31757.04
	madu	1	67	26522.62
	BITS	1	0	0.00
	PRAGATHI	1	7	63000.00
	APPLE	2	32	48150.00
	BDPS	3	64	59875.00

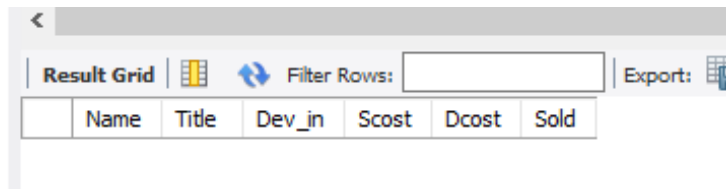
7) Display details of software developed in DBASE by male programmers WHO belong to the institute on which MOST NUMBER OF programmer's studies.

select programmer.name , sex ,splace from programmer join studies on programmer.name = studies.name where sex = 'm' and (prof1='dbase'or prof2='dbase') and (splace) =(select splace from studies group by splace having count(splace) =(select max(cnt) from ( select count(splace) as cnt from studies group by splace order by count(splace)) as subquery))

Result Grid			
Filter Rows:			
	name	sex	splace
▶	RAMESH	M	SABHARI

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

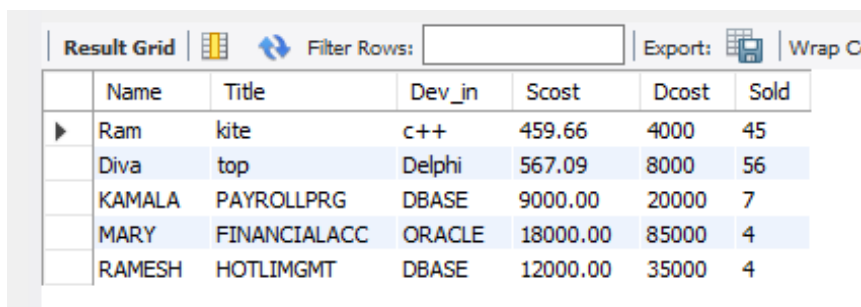
```
select software.* from software ,programmer where software.name=programmer.name and ((sex='m' and year(dob) <1965 ) or (sex='f' and year(dob) > 1975));
```



Name	Title	Dev_in	Scost	Dcost	Sold
------	-------	--------	-------	-------	------

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 in (select distinct prof2 from programmer where prof2 not in (select prof1 from programmer));
```

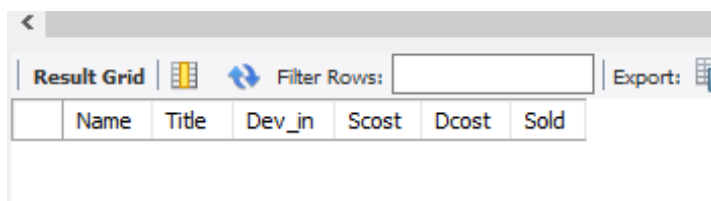


Name	Title	Dev_in	Scost	Dcost	Sold
Ram	kite	c++	459.66	4000	45
Diva	top	Delphi	567.09	8000	56
KAMALA	PAYROLLPRG	DBASE	9000.00	20000	7
MARY	FINANCIALACC	ORACLE	18000.00	85000	4
RAMESH	HOTLIMGMT	DBASE	12000.00	35000	4

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 in (select distinct prof2 from programmer where prof2 not in (select prof1 from programmer)) and Dev_in
```

```
in (select distinct prof1 from programmer where prof1 not in (select prof2 from programmer));
```



Name	Title	Dev_in	Scost	Dcost	Sold
------	-------	--------	-------	-------	------

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

```
select * from programmer where name in (select programmer.name from programmer join studies on programmer.name = studies.name where sex='m'
```

```
and studies.splace in (select splace from studies where splace='sabhari'));
```

Result Grid						
Filter Rows:						
	Name	Title	Dev_in	Scost	Dcost	Sold
▶	Somdutt	chute	basic	399.50	6000	43
	ANAND	PARACHUTES	BASIC	399.95	6000	43
	ANAND	VIDEOTITLING	PASCAL	7500.00	16000	9
	RAMESH	HOTLINGMT	DBASE	12000.00	35000	4
	RAMESH	DEADLEE	PASCAL	599.95	4500	73

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

select \* from programmer where name not in (select distinct name from software) ;

Result Grid							
Filter Rows:							
	Name	dob	doj	sex	prof1	prof2	salary
▶	ALTAF	1964-07-02	1990-11-19	M	CLIPPER	COBOL	2800
	NELSON	1969-09-05	1991-04-09	M	COBOL	DBASE	2500
	REBECCA	1967-01-07	1990-12-10	F	BASIC	COBOL	2500

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

select distinct name ,sum(dcost) from software group by name having name in (select name from studies where splace ='apple');

Result Grid		
Filter Rows:		
	name	sum(dcost)
▶	QADIR	8400

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

select group\_concat(ifnull(name, 'n/a') separator ',') name ,day(dob) d from programmer group by d having count(\*) >1 order by day(dob);

Result Grid		
Filter Rows:		
	name	d
▶	NELSON,QADIR	5
	RAMESH,REBECCA	7
	ANAND,JULIANA	12
	Somdutt,Ram,Diva	22
	Riva,MARY	24

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

select group\_concat(ifnull(name,'N/A') separator ',') names , prof2 from programmer group by prof2 having count(\*) >1;

Result Grid		Filter Rows:
	names	prof2
▶	Somdutt,Riva,ANAND	basic
	ALTAF,REBECCA	COBOL
	JULIANA,KAMALA,NELSON,RAMESH	DBASE

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

SELECT a.splace, SUM(b.Scost\*sold) FROM studies a JOIN software b ON a.name = b.Name GROUP BY a.splace;

Result Grid		Filter Rows:
	splace	SUM(b.Scost*sold)
▶	Sabhari	377572.70
	bdbs	20684.70
	chen	31757.04
	madu	26522.62
	BITS	0.00
	PRAGATHI	63000.00
	APPLE	48150.00
	BDPS	59875.00

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

select splace ,name from studies where name =( select name from software where Dcost =(select max(dcost) from software ))

Result Grid		Filter Rows:
	splace	name
▶	SABHARI	MARY

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

select dev\_in from software where Dev\_in in (select dev\_in from software group by dev\_in ) and Dev\_in not in (select prof1 from programmer) and Dev\_in not in (select prof2 from programmer);

Result Grid	
	dev_in

19) How much does the person WHO developed the HIGHEST selling package earn and WHAT course did he/she undergo?

select name, splace from studies where name =(

select name from software where (sold \* scost )-Dcost =(select max((sold \* scost )-Dcost ) from software))

Result Grid	
	Filter Rows
name	splace
MARY	SABHARI

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

select round(s.ccost / p.salary) as recover\_cost\_in\_months, p.name from studies s , programmer p where s.name = p.name ;

Result Grid	
	Filter Rows:
recover_cost_in_months	name
1	Somdutt
1	Ram
1	Diva
1	Riva
1	ANAND
3	ALTAF
7	JULIANA
2	KAMALA
1	MARY

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

SELECT s.dev\_in FROM programmer p JOIN software s ON p.name = s.name WHERE s.dcost = ( SELECT MAX(s2.dcost) FROM software s2 JOIN programmer p2 ON p2.name = s2.name ) AND (((DATEDIFF(SYSDATE(), p.doj)) / 365 + 100) < 3 OR s.name IN (

SELECT x.name FROM software x JOIN programmer y ON x.name = y.name WHERE  
TIMESTAMPDIFF(MONTH, y.doj, SYSDATE()) > 36 );

Result Grid	
	dev_in
▶	ORACLE

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

select avg(salary) from programmer where name in (select name from software where sold \*scost  
in (select sold \*scost from software where sold \*scost> 50000));

Result Grid	
	avg(salary)
▶	3533.3333

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

select count(title) from software where (title) in  
(select title from software where name in  
(select name from studies where ccost in  
(select min(ccost)from studies)));

Result Grid	
	count(title)
▶	1

24) How many packages were developed by the person WHO developed the CHEAPEST package?  
Where did he\she study?

select count(title) , splace from software s , studies st where s.name = st.name and  
dcost =(select min(dcost ) from software)  
group by splace order by count(title) desc; -----name display needed

Result Grid		
	count(title)	splace
1	1	BDPS

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

```
select group_concat( name separator ',' ) as name ,count(title) from software where name in (
select name from programmer where sex= 'f' and salary > (select max(salary) from programmer
where sex='m')) group by name ;
```

Result Grid		
	name	count(title)
1	Diva	1
2	MARY,MARY,MARY	3

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

```
select count(*) from software s,programmer p where p.name=s.name group by doj having
max(doj)=(select max(doj) from studies st,programmer p, software s where p.name=s.name and
st.name=p.name and (splace='bdps'));
```

Result Grid	
	count(*)

27) List the programmers (from software table) and institutes they studied, including those WHO DIDN'T develop any package

```
select distinct st.name , splace from software s, studies st where s.name = st.name union select
distinct name , splace from studies order by name ;
```

	name	splace
▶	ALTAF	COIT
	ANAND	SABHARI
	Diva	chen
	JULIANA	BITS
	KAMALA	PRAGATHI
	MARY	SABHARI
	NELSON	PRAGATHI
	PATRICK	PRAGATHI
	QADIR	APPLE

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

select name ,sum((scost \*sold) - dcost) as profit , count(title) from software where name in( select distinct s.name from programmer p join software s on p.name = s.name where dev\_in = prof1) group by name order by name; -----need diff

	name	profit	count(title)
▶	ANAND	62697.85	2
	JULIANA	-3500.00	1
	MARY	77700.00	3
	QADIR	39750.00	2
	RAMESH	52296.35	2

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

select distinct(p.name) , count(s.title) from programmer p join software s on s.name =p.name group by name;

	name	count(s.title)
	Diva	1
	Riva	1
	MARY	3
	ANAND	2
	JULIANA	1
	KAMALA	1
	PATTRICK	1
	QADIR	2
	RAMESH	2

Result 75 ×



where s.splace = 'pragathi' and p.name =s.name and s.name = so.name;

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	Name	dob	doj	sex	prof1	prof2	salary	name	Splice	Course	Ccost	Name	Title	Dev_in	Scost	Dcost	Sold
	KAMALA	1968-10-10	1992-01-06	F	C	DBASE	2900	KAMALA	PRAGATHI	DCP	5000	KAMALA	PAYROLLPRG	DBASE	9000.00	20000	7