

# SQL QUERIES-THIANESH GOVINDASAMY

## DATABASE QUERY:

```
create database emp;
```

```
use emp;
```

```
create table Programmer (ename VARCHAR(28) NOT NULL, dob date NOT NULL, doj date NOT NULL, sex  
varchar(1) NOT NULL, prof1 varchar(20), prof2 varchar(20), salary integer(4) NOT NULL);
```

```
insert into Programmer values ('somdutt',21-04-1966,21-04-1992,'m','pascal','basic',3200);
```

```
insert into programmer values ("anand","1966-04-12","1992-04-  
21","m","pascal","basic",3200),("altaf","1964-07-02","1990-11-  
13","m","clipper","cobol",2800),("juliana","1960-01-13","1990-04-  
21","f","cobol","dbase",3000),("kamala","1968-10-30","1992-01-  
02","f","c","dbase",2900),("mary","1970-06-24","1991-02-01","f","cpp","oracle",4500),("nelson","1985-  
09-11","1989-03-11","m","cobol","dbase",2500),("patrick","1965-11-10","1990-04-  
21","m","pascal",null,2800),("qadir","1965-08-31","1990-04-  
21","m","assembly","c",3000),("ramesh","1967-05-03","1991-02-  
26","m","pascal","dbase",3200),("rebecca","1997-01-01","1990-12-  
01","f","basic","cobol",2500),("remitha","1970-04-19","1993-04-  
20","f","c","assembly",3000),("revathi","1969-12-02","1992-01-  
02","f","pascal","basic",3200),("vijaya","1965-12-14","1992-05-02","f","foxpro","c",4500);
```

```
create table Software (ename varchar(28) NOT NULL, title varchar(20) NOT NULL, dev_in varchar(20) NOT  
NULL, scost float(7,2), dcost integer(5), sold integer(3));
```

```
insert into Software values ('somdutt','parachutes','basic', 399.95, 6000, 43);
```

```
insert into software values
```

```
("mary","readme","cpp",100.00,1200,84),("anand","parachutes","basic",399.95,6000,43),("anand","video  
titling","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","codegenerrator","c  
,4500.00,20000,23),("patrick","readme","cpp",300.00,1200,84),("qadir","bombsaway","assembly",750.0  
0,5000,11),("qadir","vaccines","c",1900.00,3400,21),("ramesh","hotlimgmt","dbase",12000.00,35000,4),(  
"ramesh","deadlee","pascal",599.95,4500,73),("remitha","pcutitles","c",725.00,5000,51),("remitha","tsrh  
elppkg","assembly",2500.00,6000,7),("revathi","hospitalmgt","pascal",1100.00,75000,2),("vijaya","tsredit  
or","c",900.00,700,6);
```

```
create table Studies (ename varchar(28) NOT NULL, splace varchar(30) NOT NULL, course varchar(30) NOT  
NULL, ccost integer(6) NOT NULL);
```

```
insert into Studies values ('somdutt','sabhari','pgdca', 4500);
```

```
insert into Studies values ('devdutt','bdps','dcs', 5000);
```

```
insert into studies values
```

```
("anand","sabhari","pgdca",4500),("atlaf","coit","dca",7200),("juliana","bits","mca",22000),("kamala","pr  
agathi","dcp",5000),("mary","sabhari","pgdca",4500),("nelson","pragathi","dap",6200),("patrick","pragath
```

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i","dcap",5200),("qadir","apple","hdc",14000),("ramesh","sabhari","pgdca",4500),("rebecca","brilliant","dcp",11000),("remitha","bdps","dcs",6000),("vijaya","bdps","dca",48000);

## QUERIES – I

1. select avg(scost) from Software where dev\_in = "pascal";
2. select ename, datediff(current\_date(),dob)/365 as age from Programmer;
3. select ename, datediff(current\_date(),dob)/365 as age from Programmer where prof1="dcs";
4. select title,sold from Software where sold=(select max(sold) from Software);
5. select ename, dob from Programmer where month(dob) = 1;
6. select min(ccost) from Studies;
7. select count(course) from Studies where course="pgdca";
8. select sum((scost\*sold)-dcost) from Software where dev\_in="c";
9. select title from Software where ename = "Ramesh";
10. select count(ename) from Studies where splace="sabhari";
11. select title from Software where (scost\*sold)-dcost>20000;
12. select ceil(dcost/scost) from software;
13. select title,max(dcost) from software where dev\_in="basic";
14. select title from software where (scost\*sold)>=dcost;
15. select count(title) from Software where dev\_in="dbase";
16. select count(ename) from Studies where splace="pragathi";
17. select count(ename) from Programmer where salary between 5000 and 10000;
18. select avg(ccost) as average from Studies;
19. select ename from Programmer where prof1="c" or prof2="c";
20. select ename from Programmer where prof1="Cobol" or prof2="Pascal";
21. select count(ename) from programmer where prof1 != 'pascal' and prof2 != 'c' and prof1 != 'c' and prof2 != 'pascal';
22. select max(datediff(current\_date(),dob)/365) from Programmer;
23. select avg(datediff(current\_date(),dob)/365) from Programmer where sex = "f";
24. select ename,dob from programmer where month(dob) = month(current\_date());
25. select ename,dob from programmer where month(dob) = month(current\_date());
26. select count(ename) from Programmer where sex='f';
27. select prof1,prof2 from Programmer where sex='m';
28. select avg(salary) from Programmer;
29. select count(ename) as draw\_salary from programmer where salary >= 2000 and salary <= 4000;
30. select \* from programmer where prof1!= 'cobol' and prof2!= 'cobol' and prof1!= 'clipper' and prof2!= 'clipper' and prof1!= 'pascal' and prof2!= 'pascal';
31. select count(ename) from Programmer where prof1='c' or prof2='c' and (datediff(current\_date(),dob)/365) > 24;
32. select ename,sum(scost\*sold) from software group by ename;
33. select \* from Programmer where datediff(current\_date(),doj)/365 < 1;
34. select \* from Programmer where datediff(current\_date(),doj)/365 < 2 and datediff(current\_date(),doj)/365 > 1;
35. select title,dcost-(scost\*sold) as amount from Software where dcost-(scost\*sold) > 0;
36. select title from Software where sold=0;
37. select dcost from Software where ename="mary";
38. select distinct splace from Studies;
39. select distinct count(course) from Studies;

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40. select ename from Programmer where ename like "%a%a%";
41. select ename,salary from programmer order by salary desc;
42. select count(ename) from Programmer where prof1="cobol" or prof2="cobol" and datediff(current\_date(),doj)/365 > 2;
43. select min(length(ename)) from Programmer;
44. select avg(dcost) from software where dev\_in="cobol";
45. select ename,sex,dob,doy from Programmer;
46. select max(salary) as highest\_salary,min(salary) as lowest\_salary,avg(salary) as average\_salary from programmer where salary > 2000;
47. select ename, salary from Programmer where prof1!="cobol" and prof2!="cobol";
48. select title,scost,dcost,abs(dcost-scost) as diff from Software order by diff desc;
49. select ename,dob,doy from Programmer where month(doy)==month(dob);
50. select title from Software where like "% %";

## QUERIES-II:

51. select count(title) from Software group by dev\_in;
52. select count(title) from Software group by ename;
53. select count(ename) from Programmer where sex="m" or sex="f";
54. select max(dcost) as costliest, max(scost\*sold) from Software group by dev\_in;
55. select year(dob) , count(ename) from programmer group by year(dob);
56. select year(doy) , count(ename) from programmer group by year(doy);
57. select month(dob) , count(ename) from programmer group by month(dob);
58. select month(doy) , count(ename) from programmer group by month(doy);
59. select count(ename) from Programmer group by prof1;
60. select count(ename) from Programmer group by prof2;
61. select ename from Programmer group by salary;
62. select ename from Studies group by splace;
63. select ename from Studies group by course;
64. select sum(dcost) from Software group by dev\_in;
65. select title,scost from software group by dev\_in;
66. select dcost from Software group by ename;
67. select ename, sum(scost\*sold) as sales\_value from software group by ename;
68. select ename,count(title) from Software group by ename;
69. select sum(scost) from software group by dev\_in;
70. select ename, max(dcost), min(dcost) from software group by ename;
71. select dev\_in, avg(dcost), avg(scost) from software group by dev\_in;
72. select course,count(courses),avg(ccost) from Studies group by course;
73. select splace,count(ename) from Studies group by splace;
74. select sex, group\_concat(ename) from programmer group by sex;
75. select title, group\_concat(ename) from Software group by title;
76. select dev\_in,count(title) from software group by dev\_in;
77. select count(title) from software group by dev\_in having dcost<1000;
78. select avg(dcost-scost) from software group by dev\_in;
79. select sum(scost),sum(dcost),sum(scost)-sum(dcost) from software group by ename having (scost\*sold)<dcost;
80. select max(salary), min(salary), avg(salary) from Programmer where salary>2000;

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## QUERIES-III:

81. select ename,salary from programmer where salary=(select max(salary) from Programmer);
82. select ename,max(salary) from programmer where sex='f' and (prof1="cobol" or prof2="cobol");
83. select dev\_in as language, ename from programmer where (prof1, salary) in (select prof1, max(salary) from programmer group by prof1) group by language;
84. select enamefrom programmer order by doj limit 1;
85. select ename from programmer order by doj desc limit 1;
86. select dev\_in as language from (select dev\_in, count(\*) as num\_programmers from software group by dev\_in) as languagecount where num\_programmers = 1;
87. select ename from programmer where prof1 = 'dbase' or prof2 = 'dbase' order by dob asc limit 1;
88. select splace from studies group by splace order by count(distinct ename) desc limit 1;
89. select ename from studies where splace = ( select splace from studies group by splace order by count(distinct ename) desc limit 1) group by ename order by dob asc limit 1;
90. select ename from programmer where sex = 'f' and salary > 3000 and prof1 not in ('c', 'c++', 'oracle', 'dbase') and (prof2 not in ('c', 'c++', 'oracle', 'dbase') or prof2 is null);
91. select course from studies group by course order by max(ccost) desc limit 1;
92. select course from studies group by course order by count(\*) desc limit 1;
93. select splace, course from studies where ccost < (select avg(ccost) from studies);
94. select splace from studies where ccost = (select max(ccost) from studies);
95. select course from studies group by course having count(distinct ename) < (select avg(student\_count) from (select count(distinct ename) as student\_count from studies group by course) as avg\_student\_count);
96. select splace from studies where course = (select course from studies group by course order by max(ccost) desc limit 1);
97. select course from studies where ccost between (select avg(ccost) - 1000 from studies) and (select avg(ccost) + 1000 from studies);
98. select title from software where dcost = (select max(dcost) from software);
99. select title from software where scost = (select min(scost) from software);
100. select ename from software where sold = (select min(sold) from software);
101. select dev\_in from software where scost = (select max(scost) from software);
102. select sold from software where abs(scost - dcost) = ( select min(abs(scost - dcost)) from software);
103. select title from software where dev\_in = 'pascal' order by scost desc limit 1;
104. select dev\_in from software group by dev\_in order by count(\*) desc limit 1;
105. select ename from software group by ename order by count(\*) desc limit 1;
106. select ename from software where scost = (select max(scost) from software);
107. select title from software where sold < (select avg(sold) from software);
108. select ename from programmer where sex = 'f' and salary > ( select max(salary) from programmer where sex = 'm');
109. select prof1 as language from programmer group by prof1 order by count(\*) desc limit 1;
110. select ename from software group by ename having sum(scost) > 2 \* sum(dcost);
111. select ename, min(title) as cheapest\_package, dev\_in as language from software group by ename, dev\_in;
112. select ename from programmer where sex = 'm' and dob = ( select min(dob) from programmer where sex = 'm' and year(dob) = 1965);

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113. select ename, (select dev\_in from software where p.ename = software.ename and scost = (select max(scost) from software where ename = p.ename)) as highest\_selling\_language, (select dev\_in from software where p.ename = software.ename and scost = (select min(scost) from software where ename = p.ename)) as lowest\_selling\_language from programmer p;
114. select ename from programmer where sex = 'f' and year(doj) = 1992 order by dob asc limit 1;
115. select year(dob) as birth\_year, count(\*) as number\_of\_programmers from programmer group by year(dob) order by number\_of\_programmers desc limit 1;
116. select month(doj) as join\_month, count(\*) as number\_of\_programmers from programmer group by join\_month order by number\_of\_programmers desc limit 1;
117. select prof1 as language from programmer group by prof1 order by count(\*) desc limit 1;
118. select ename from programmer where sex = 'm' and salary < (select avg(salary) from programmer where sex = 'f');

## QUERIES-IV:

119. select \*from programmer where salary in (select salary from programmer group by salary having count(\*) > 1);
120. select \*from software where ename in (select ename from programmer where sex = 'm' and salary > 3000);
121. select \*from software where ename in (select ename from programmer where sex = 'f') and dev\_in = 'pascal';
122. select \*from programmer where year(doj) < 1990;
123. select \*from software where ename in (select ename from programmer where sex = 'f' and splace = 'pragathi') and dev\_in = 'c';
124. select ename, splace, count(\*) as num\_packages, sum(sold) as total\_copies\_sold, sum(scost \* sold) as sales\_value from software s join programmer p on s.ename = p.ename group by ename, splace;
125. select \*from software where dev\_in = 'dbase' and ename in (select ename from programmer where sex = 'm' and splace = (select splace from programmer group by splace order by count(\*) desc limit 1));
126. select \*from software where ename in (select ename from programmer where (sex = 'm' and year(dob) < 1965) or (sex = 'f' and year(dob) > 1975));
127. select \*from software where dev\_in not in (select prof1 from programmer);
128. select \*from software where dev\_in not in (select prof1 from programmer union select prof2 from programmer);
129. select \*from software where ename in (select ename from programmer where sex = 'm' and splace = 'sabhari');
130. select ename from programmer where ename not in (select distinct ename from software);
131. select sum(scost) as total\_cost from software where ename in (select name from programmer where splace = 'apple');
132. select ename from programmer group by ename, doj having count(\*) > 1;
133. select ename from programmer group by prof2 having count(\*) > 1;
134. select splace, sum(scost \* sold) as total\_sales\_value from software sjoin programmer p on s.ename = p.ename group by splace;
135. select splace from programmer where ename in (select ename from software where scost = (select max(scost) from software));

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136.       select distinct language from (select prof1 as language from programmer union select prof2 as language from programmer) as languages where language not in (select distinct dev\_in from software);
137.       select p.ename, p.salary, s.title, s.scost from programmer p, software s where p.ename = s.ename and s.scost = (select max(scost) from software);
138.       select ename, salary / ccost as months\_to\_recover from programmer, studies where programmer.ename = studies.ename;
139.       select title from software where ename in (select ename from programmer where datediff(now(), doj) < 3\*365) order by scost desc limit 1;
140.       select avg(salary) as average\_salary from programmer where ename in ( select ename from software group by ename having sum(scost \* sold) > 50000);
141.       select count(\*) as num\_packages from software where ename in (select ename from studies where ccost = (select min(ccost)from studies));
142.       select count(\*) as num\_packages, splace from software, studies where software.ename = studies.ename and scost = (select min(scost) from software)group by splace;
143.       select count(\*) as num\_packages from software where ename in (select ename from programmer where sex = 'f' and salary > (select max(salary) from programmer where sex = 'm' ));
144.       select count(\*) as num\_packages from software where ename in (select ename from programmer where splace = 'bdps' order by datediff(now(), doj) desc limit 1);
145.       select distinct p.ename, case when s.ename is not null then s.splace else 'n/a' end as splace from programmer p, software s where p.ename = s.ename or s.ename is null;
146.       select prof1, count(distinct ename) as num\_programmers, count(\*) as num\_packages from programmer group by prof1;
147.       select ename, count(\*) as num\_packages from software group by ename;
148.       select \*from programmer where ename in (select ename from studies where splace = 's.s.i.l.');