SQL

create database company;

use company;

create table programmer(

name varchar(10),

dob date,

doj date,

sex varchar(1),

prof1 varchar(15),

prof2 varchar(10),

salary int

);

insert into Programmer (name, dob, doj, sex, prof1, prof2, salary)Values('somdutt', str\_to\_date('21-Apr-66','%d-%b-%y'), str\_to\_date('21-Apr-92','%d-%b-%y'), 'm', 'pascal', 'basic', 3200);

insert into Programmer (name, dob, doj, sex, prof1, prof2, salary)Values('sri', str\_to\_date('02-Jan-68','%d-%b-%y'),str\_to\_date('28-Mar-92','%d-%b-%y'), 'f', 'c', 'basic', 4520);

insert into Programmer (name, dob, doj, sex, prof1, prof2, salary)Values('viswa', str\_to\_date('12-jun-70','%d-%b-%y'), str\_to\_date('10-sep-80','%d-%b-%y'), 'm', 'html', 'nosql', 6000);

insert into Programmer (name, dob, doj, sex, prof1, prof2, salary)Values('akash', str\_to\_date('23-aug-82','%d-%b-%y'), str\_to\_date('15-mar-90','%d-%b-%y'), 'm', 'javascript', 'css', 3800);

insert into Programmer (name, dob, doj, sex, prof1, prof2, salary)Values('swathi', str\_to\_date('11-jan-80','%d-%b-%y'), str\_to\_date('17-jun-92','%d-%b-%y'), 'f', 'angular', 'sql', 5900);

insert into Programmer (name, dob, doj, sex, prof1, prof2, salary)Values('mani', str\_to\_date('20-sep-66','%d-%b-%y'), str\_to\_date('29-nov-92','%d-%b-%y'), 'm', 'pascal', 'basic', 5990);

insert into Programmer (name, dob, doj, sex, prof1, prof2, salary)Values('veni', str\_to\_date('06-Jan-67','%d-%b-%y'),str\_to\_date('28-apr-95','%d-%b-%y'), 'f', 'c', 'basic', 2520);

insert into Programmer (name, dob, doj, sex, prof1, prof2, salary)Values('adhithi', str\_to\_date('13-jun-75','%d-%b-%y'), str\_to\_date('10-sep-88','%d-%b-%y'), 'f', 'html', 'cobal', 5000);

insert into Programmer (name, dob, doj, sex, prof1, prof2, salary)Values('tharika', str\_to\_date('25-oct-82','%d-%b-%y'), str\_to\_date('15-nov-85','%d-%b-%y'), 'f', 'sql', 'dbase', 4250);

insert into Programmer (name, dob, doj, sex, prof1, prof2, salary)Values('rishi', str\_to\_date('03-dec-80','%d-%b-%y'), str\_to\_date('17-jun-92','%d-%b-%y'), 'f', 'mongodb', 'css', 8900);

create table software(

name varchar(10),

title varchar(20),

dev\_in varchar(10),

scost decimal(7,2),

dcost int,

sold int

);

insert into software(name,title,dev\_in,scost,dcost,sold)Values('somdutt','parachutes','basic',399.95,6000,43);

insert into software(name,title,dev\_in,scost,dcost,sold)Values('sri','shopping\_cart','advance',439.95,6999,62);

insert into software(name,title,dev\_in,scost,dcost,sold)Values('viswa','meet\_now','basic',568.65,5550,36);

insert into software(name,title,dev\_in,scost,dcost,sold)Values('akash','voice\_assistant','advance',299.50,4900,22);

insert into software(name,title,dev\_in,scost,dcost,sold)Values('swathi','chatgpt','advance',499.50,6600,66);

insert into software(name,title,dev\_in,scost,dcost,sold)Values('mani','file\_share','basic',289.95,6000,75);

insert into software(name,title,dev\_in,scost,dcost,sold)Values('veni','shopping\_cart','advance',550.89,6999,45);

insert into software(name,title,dev\_in,scost,dcost,sold)Values('adhithi','farm\_web','basic',699.65,5550,57);

insert into software(name,title,dev\_in,scost,dcost,sold)Values('tharika','clock','advance',450.50,4900,66);

insert into software(name,title,dev\_in,scost,dcost,sold)Values('rishi','chatbot','advance',330.60,6600,99);

create table studies(

name varchar(10),

splace varchar(10),

course varchar(15),

ccost varchar(10)

);

insert into studies(name,splace,course,ccost)values('somdutt','sabhari','pgdca',4500);

insert into studies(name,splace,course,ccost)values('sri','coimbatore','pgcsc',5999);

insert into studies(name,splace,course,ccost)values('viswa','chennai','ugece',8950);

insert into studies(name,splace,course,ccost)values('akash','coimbatore','pgcce',3330);

insert into studies(name,splace,course,ccost)values('swathi','madurai','pgcsc',6550);

insert into studies(name,splace,course,ccost)values('mani','sabhari','ugece',7500);

insert into studies(name,splace,course,ccost)values('veni','delhi','pgdca',8999);

insert into studies(name,splace,course,ccost)values('adhithi','salem','udeee',9950);

insert into studies(name,splace,course,ccost)values('tharika','bangalore','pgcce',2330);

insert into studies(name,splace,course,ccost)values('rishi','trichy','ugaids',7550);

-- 1

SELECT AVG(scost)FROM software

WHERE dev\_in like 'pascal';

-- 3

SELECT name, course

from studies where course like 'dap';

-- 5

SELECT DOB,name

FROM programmer

WHERE dob like '\_\_\_\_\_01\_\_\_';

-- 4

SELECT MAX(sold) FROM SOFTWARE;

-- 6

SELECT \* FROM studies;

SELECT MIN(ccost) FROM studies;

SELECT Max(ccost) FROM studies;

-- 7

SELECT COUNT(name)

FROM studies

WHERE course LIKE 'pgdca';

-- 8

SELECT SUM(sold\*scost)

FROM SOFTWARE

WHERE dev\_in like 'c';

-- 9

SELECT \*FROM software

WHERE name ='sri';

-- 10

SELECT \* FROM studies where splace = 'sabhari';

SELECT count(name) FROM studies where splace = 'sabhari';

-- 11

SELECT \*FROM software WHERE (sold\*scost)>20000;

-- 13

select max(dcost) from software;

-- 14

select \* from software where scost\*sold >= dcost;

-- 15

SELECT \* FROM software where dev\_in = 'basic';

SELECT count(title) FROM software where dev\_in = 'basic';

-- 16

SELECT count(name) FROM studies where splace = 'sabhari';

-- 17

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

-- 18

select AVG(ccost) from studies;

-- 19

SELECT \* FROM software where dev\_in = 'meet\_now';

-- 20

SELECT \* FROM programmer WHERE prof1='html' OR prof1='html' OR prof2='nosql' OR prof2='nosql';

-- 21

SELECT \* FROM PROGRAMMER WHERE prof1!='html' OR prof1!='html' OR prof2!='nosql' OR prof2!='nosql';

-- 25

select count(sex) from programmer where sex like 'f';

-- 27

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

-- 28

select avg(salary) from programmer;

-- 29

select count(\*) from programmer where salary between 4000 and 40000;

-- 30

select \* from programmer where prof1<>'clipper' and prof1<>'cobol' and prof1<>'pascal' and prof2<>'clipper' and prof2<>'cobol' and prof2<>'pascal' ;

-- 31

SELECT COUNT(\*) AS female\_c\_programmers\_above\_24

FROM Programmer

WHERE sex = 'f'

AND prof1 = 'c'

AND TIMESTAMPDIFF(YEAR, dob, CURDATE()) > 24;

-- II query

-- 1

SELECT dev\_in AS Language, COUNT(\*) AS Package\_Count

FROM software

GROUP BY dev\_in;

-- 2

SELECT name, COUNT(\*) AS Package\_Count

FROM software

GROUP BY name;

-- 3

SELECT sex, COUNT(\*) AS Programmer\_Count

FROM programmer

GROUP BY sex;

-- 4

SELECT dev\_in AS Language, MAX(dcost) AS Costliest\_Package, MAX(sold) AS Highest\_Selling

FROM software

GROUP BY dev\_in;

-- 5

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

FROM programmer

GROUP BY YEAR(dob);

-- 6

SELECT YEAR(doj) AS Join\_Year, COUNT(\*) AS Person\_Count

FROM programmer

GROUP BY YEAR(doj);

-- 7

SELECT MONTH(dob) AS Birth\_Month, COUNT(\*) AS Person\_Count

FROM programmer

GROUP BY MONTH(dob);

-- 8

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

FROM programmer

GROUP BY MONTH(doj);

-- 9

SELECT prof1, COUNT(\*) AS Prof1\_Count

FROM programmer

GROUP BY prof1;

-- 10

SELECT prof2, COUNT(\*) AS Prof2\_Count

FROM programmer

GROUP BY prof2;

-- 11

SELECT FLOOR(salary / 1000) \* 1000 AS Salary\_Group, COUNT(\*) AS Person\_Count

FROM programmer

GROUP BY Salary\_Group;

-- 12

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

FROM studies

GROUP BY splace;

-- 13

SELECT course, COUNT(\*) AS Person\_Count

FROM studies

GROUP BY course;

-- 14

SELECT dev\_in AS Language, SUM(dcost) AS Total\_Cost

FROM software

GROUP BY dev\_in;

-- 15

SELECT dev\_in AS Language, SUM(scost) AS Total\_Selling\_Cost

FROM software

GROUP BY dev\_in;

-- 16

SELECT name, SUM(dcost) AS Total\_Development\_Cost

FROM software

GROUP BY name;

-- 17

SELECT name, SUM(sold) AS Total\_Sales\_Value

FROM software

GROUP BY name;

-- 18

SELECT name, COUNT(\*) AS Package\_Count

FROM software

GROUP BY name;

-- 19

SELECT name, dev\_in AS Language, SUM(scost) AS Total\_Selling\_Cost

FROM software

GROUP BY name, dev\_in;

-- 20

SELECT s1.name AS Programmer\_Name, s2.title AS Costliest\_Package, s3.title AS Cheapest\_Package

FROM (SELECT DISTINCT name FROM software) AS s1

LEFT JOIN (SELECT name, title FROM software ORDER BY dcost DESC LIMIT 1) AS s2 ON s1.name = s2.name

LEFT JOIN (SELECT name, title FROM software ORDER BY dcost ASC LIMIT 1) AS s3 ON s1.name = s3.name;

-- 21

SELECT dev\_in AS Language,

AVG(dcost) AS Avg\_Development\_Cost,

AVG(scost) AS Avg\_Cost,

AVG(sold) AS Avg\_Selling\_Cost,

AVG(scost / sold) AS Avg\_Price\_Per\_Copy

FROM software

GROUP BY dev\_in;

-- 22

SELECT splace AS Institute,

COUNT(course) AS Number\_of\_Courses,

AVG(ccost) AS Avg\_Cost\_Per\_Course

FROM studies

GROUP BY splace;

-- 23

SELECT splace AS Institute,

COUNT(DISTINCT name) AS Number\_of\_Students

FROM studies

GROUP BY splace;

-- 24

SELECT DISTINCT name, sex

FROM programmer;

-- 25

SELECT p.name AS Programmer\_Name, s.title AS Package\_Title

FROM programmer p

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

-- 26

SELECT dev\_in AS Language, COUNT(\*) AS Package\_Count

FROM software

GROUP BY dev\_in;

-- 27

SELECT dev\_in AS Language, COUNT(\*) AS Package\_Count

FROM software

WHERE dcost < 1000

GROUP BY dev\_in;

-- 28

SELECT dev\_in AS Language, AVG(scost - dcost) AS Avg\_Difference

FROM software

GROUP BY dev\_in;

-- 29

SELECT p.name AS Programmer\_Name,

SUM(s.scost) AS Total\_Selling\_Cost,

SUM(s.dcost) AS Total\_Development\_Cost,

SUM(s.scost - s.dcost) AS Amount\_To\_Be\_Recovered

FROM programmer p

JOIN software s ON p.name = s.name

GROUP BY p.name

HAVING Total\_Development\_Cost < 6000;

-- 30

SELECT MAX(salary) AS Highest\_Salary,

MIN(salary) AS Lowest\_Salary,

AVG(salary) AS Average\_Salary

FROM programmer

WHERE salary > 2000;

-- III query

-- 1

SELECT name

FROM programmer

WHERE prof1 = 'C'

ORDER BY salary DESC

LIMIT 1;

-- 2

SELECT name

FROM programmer

WHERE prof1 = 'COBOL' AND sex = 'f'

ORDER BY salary DESC

LIMIT 1;

-- 3

SELECT prof1, name

FROM programmer

WHERE (prof1, salary) IN (

SELECT prof1, MAX(salary)

FROM programmer

GROUP BY prof1

);

-- 4

SELECT name

FROM programmer

ORDER BY doj

LIMIT 1;

-- 5

SELECT name

FROM programmer

ORDER BY doj DESC

LIMIT 1;

-- 6

SELECT prof1

FROM programmer

GROUP BY prof1

HAVING COUNT(\*) = 1;

-- 7

SELECT name

FROM programmer

WHERE prof1 = 'html'

ORDER BY dob DESC

LIMIT 1;

-- 8

SELECT splace, COUNT(\*) AS num\_students

FROM studies

GROUP BY splace

ORDER BY num\_students DESC

LIMIT 1;

-- 9

SELECT name

FROM studies

order BY splace;

-- 10

SELECT name

FROM programmer

WHERE sex = 'f' AND salary > 3000

AND prof1 NOT IN ('html', 'nosql', 'javascript', 'css')

AND prof2 NOT IN ('html', 'nosql', 'javascript', 'css');

-- 11

SELECT course

FROM studies

ORDER BY ccost DESC;

-- 12

SELECT course

FROM studies

GROUP BY course

ORDER BY COUNT(\*) DESC

LIMIT 1;

-- 13

SELECT splace, course

FROM studies

WHERE ccost < (

SELECT AVG(ccost)

FROM studies);

-- 14

SELECT splace

FROM studies

WHERE ccost = (

SELECT MAX(ccost)

FROM studies);

-- 15

SELECT course

FROM studies

GROUP BY course

HAVING COUNT(\*) < (SELECT AVG(num\_st)FROM (SELECT COUNT(\*) AS num\_st FROM studies

GROUP BY course) AS avg\_st);

-- 16

SELECT splace

FROM studies

WHERE course = (SELECT course FROM studies

GROUP BY course

HAVING COUNT(\*) < (SELECT AVG(no\_st)FROM (SELECT COUNT(\*) AS no\_st FROM studies

GROUP BY course) AS avg\_st)

);

-- 17

SELECT course

FROM studies

WHERE ABS(ccost - (

SELECT AVG(ccost)

FROM studies

)) <= 1000;

-- 18

SELECT title

FROM software

ORDER BY dcost DESC;

-- 19

SELECT title

FROM software

ORDER BY scost ;

-- 20

SELECT name

FROM software

WHERE sold = (SELECT MIN(sold)FROM software);

-- 21

SELECT dev\_in

FROM software

WHERE sold = (SELECT MAX(sold) FROM software);

-- 22

SELECT sold

FROM software

WHERE ABS(scost - dcost) = (SELECT MIN(ABS(scost - dcost)) FROM software);

-- 23

SELECT title FROM software

WHERE dev\_in = 'pascal'

ORDER BY scost DESC;

-- 24

SELECT dev\_in

FROM software

GROUP BY dev\_in

ORDER BY COUNT(\*) DESC;

-- 25

SELECT name

FROM software

GROUP BY name

ORDER BY COUNT(\*) DESC;

-- 26

SELECT name

FROM software

WHERE scost = (SELECT MAX(scost) FROM software);

-- 27

SELECT title

FROM software

WHERE sold < (SELECT AVG(sold) FROM software);

-- 28

SELECT p.name

FROM Programmer p

WHERE p.sex = 'f' AND p.salary > (SELECT MAX(salary) FROM Programmer WHERE sex = 'm');

-- 29

SELECT prof1

FROM Programmer

GROUP BY prof1

ORDER BY COUNT(\*) DESC;

-- 30

SELECT p.name

FROM Programmer p

JOIN software s ON p.name = s.name

WHERE s.scost > (2 \* s.dcost);

-- 31

SELECT p.name, s.title, s.dev\_in

FROM Programmer p

JOIN software s ON p.name = s.name

WHERE (s.dev\_in, s.dcost) IN (

SELECT dev\_in, MIN(dcost)

FROM software

GROUP BY dev\_in);

-- 32

SELECT name

FROM Programmer

WHERE sex = 'm' AND dob = (

SELECT MIN(dob)

FROM Programmer

WHERE sex = 'm' AND YEAR(dob) = 1965

);

-- 33

SELECT p.name, MAX(s.dev\_in) AS highest\_selling\_language, MIN(s.dev\_in) AS lowest\_selling\_language

FROM Programmer p

JOIN software s ON p.name = s.name

GROUP BY p.name;

-- 34

SELECT name

FROM Programmer

WHERE sex = 'f' AND doj = (

SELECT MIN(doj)

FROM Programmer

WHERE sex = 'f' AND YEAR(doj) = 1992

);

-- 35

SELECT YEAR(dob) AS birth\_year, COUNT(\*) AS num\_programmers

FROM Programmer

GROUP BY YEAR(dob)

ORDER BY num\_programmers DESC;

-- 36

SELECT MONTH(doj) AS join\_month, COUNT(\*) AS num\_programmers

FROM Programmer

GROUP BY MONTH(doj)

ORDER BY num\_programmers DESC;

-- 37

SELECT prof1 AS language, COUNT(\*) AS num\_programmers

FROM Programmer

GROUP BY prof1

ORDER BY num\_programmers DESC;

-- 38

SELECT p.name

FROM Programmer p

WHERE p.sex = 'm' AND p.salary < (SELECT AVG(salary) FROM Programmer WHERE sex = 'f');

-- query IV

SELECT \*

FROM Programmer

WHERE salary IN (

SELECT salary

FROM Programmer

GROUP BY salary

HAVING COUNT(\*) > 1

);

-- 2

SELECT s.\* FROM Software s

JOIN Programmer p ON s.name = p.name

WHERE p.sex = 'm' AND p.salary > 3000;

-- 3

SELECT s.\* FROM Studies s

JOIN Programmer p ON s.name = p.name

WHERE p.sex = 'f' AND p.prof1 = 'pascal';

-- 4

SELECT \* FROM Programmer WHERE doj < '1990-01-01';

-- 5

SELECT s.\* FROM Software s

JOIN Programmer p ON s.name = p.name

WHERE p.sex = 'f' AND p.prof1 = 'javascript' AND p.prof2 = 'css';

-- 6

SELECT p.splace AS Institute,

p.name AS Programmer\_Name,

COUNT(s.title) AS No\_Packages,

SUM(s.sold) AS No\_Copies\_Sold,

SUM(s.sold \* s.scost) AS Sals\_Value

FROM studies p

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

GROUP BY p.splace, p.name;

-- 7

SELECT s.\* FROM software s

JOIN programmer p ON s.name = p.name

JOIN (SELECT splace, COUNT(\*) AS num\_programmers

FROM studies

GROUP BY splace

ORDER BY num\_programmers DESC

LIMIT 1) AS most\_studied ON p.prof1 = 'm' AND p.sex = 'm' AND splace = most\_studied.splace

WHERE s.dev\_in = 'advance';

-- 8

SELECT s.\*

FROM software s

JOIN programmer p ON s.name = p.name

WHERE (p.sex = 'm' AND p.dob < '1965-01-01') OR (p.sex = 'f' AND p.dob > '1975-01-01');

-- 9

SELECT s.\*

FROM software s

JOIN programmer p ON s.name = p.name

WHERE s.dev\_in != p.prof1;

-- 10

SELECT s.\*

FROM software s

JOIN programmer p ON s.name = p.name

WHERE s.dev\_in != p.prof1 AND s.dev\_in != p.prof2;

-- 11

SELECT s.\*

FROM software s

JOIN programmer p ON s.name = p.name

JOIN studies st ON p.name = st.name

WHERE p.sex = 'm' AND st.splace = 'sabhari';

-- 12

SELECT name

FROM programmer

WHERE name NOT IN (SELECT DISTINCT name FROM studies);

-- 13

SELECT SUM(scost) AS tcost

FROM software

WHERE name IN (SELECT name FROM programmer WHERE name LIKE '%sri%');

-- 14

SELECT \* FROM programmer

WHERE doj IN (SELECT doj FROM programmer GROUP BY doj HAVING COUNT(\*) > 1);

-- 15

SELECT \*

FROM programmer

WHERE prof2 IN (SELECT prof2 FROM programmer GROUP BY prof2 HAVING COUNT(\*) > 1);

-- 16

SELECT st.splace AS Institute,

SUM(s.sold) AS Total\_Sales\_Value

FROM studies st

JOIN software s ON st.name = s.name

GROUP BY st.splace;

-- 17

SELECT st.splace AS Institute

FROM software s

JOIN studies st ON s.name = st.name

WHERE s.dcost = (SELECT MAX(dcost) FROM software);

-- 18

SELECT prof

FROM (

SELECT prof1 AS prof FROM programmer

UNION

SELECT prof2 AS prof FROM programmer

) AS profs

WHERE prof NOT IN (SELECT DISTINCT dev\_in FROM software);

-- 19

SELECT p.name AS Programmer\_Name, p.salary, st.course

FROM programmer p

JOIN software s ON p.name = s.name

JOIN studies st ON p.name = st.name

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

-- 20

SELECT p.name AS Programmer\_Name,

st.course,

DATEDIFF(NOW(), p.doj) AS Months\_Experience,

(st.ccost / p.salary) \* 12 AS Months\_To\_Recover\_Cost

FROM programmer p

JOIN studies st ON p.name = st.name;

-- 21

SELECT title AS Costliest\_Package

FROM software

WHERE name IN (

SELECT name FROM programmer WHERE DATEDIFF(NOW(), doj) < 1095

)

ORDER BY dcost DESC

LIMIT 1;

-- 22

SELECT AVG(p.salary) AS Average\_Salary

FROM programmer p

JOIN software s ON p.name = s.name

WHERE s.sold > 50000;

-- 23

SELECT COUNT(\*) AS Package\_Count

FROM software

WHERE name IN (

SELECT name FROM studies WHERE ccost = (SELECT MIN(ccost) FROM studies)

);

-- 25

SELECT COUNT(\*) AS Package\_Count

FROM software

WHERE name IN (

SELECT name FROM programmer WHERE sex = 'f' AND salary > (SELECT MAX(salary) FROM programmer WHERE sex = 'm')

);

-- 26

SELECT COUNT(\*) AS Package\_Count

FROM software

WHERE name IN (

SELECT name FROM programmer WHERE doj = (SELECT MAX(doj) FROM programmer WHERE prof1 = 'BDPS' OR prof2 = 'BDPS')

);

-- 27

SELECT p.name AS Programmer\_Name, COALESCE(st.splace, 'Not Available') AS Institute

FROM programmer p

LEFT JOIN studies st ON p.name = st.name;

-- 28

SELECT prof1,

COUNT(DISTINCT p.name) AS Programmer\_Count,

COUNT(\*) AS Package\_Count

FROM programmer p

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

GROUP BY prof1;

-- 29

SELECT p.name AS Programmer\_Name, COUNT(\*) AS Package\_Count

FROM programmer p

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

GROUP BY p.name;

-- 30

SELECT splace AS Institute, st.course

FROM programmer p

JOIN studies st ON p.name = st.name

JOIN software s ON p.name = s.name

WHERE splace = 'S.S.I.L.';