**Muhammad Abdullah**

**SE(4A) | 19F-0916**

Database Lab

Lab # 9 Sub QuerIes

**Question # 1**

**Graphical user interface, text, application

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**Question # 2**

**Graphical user interface, text, application

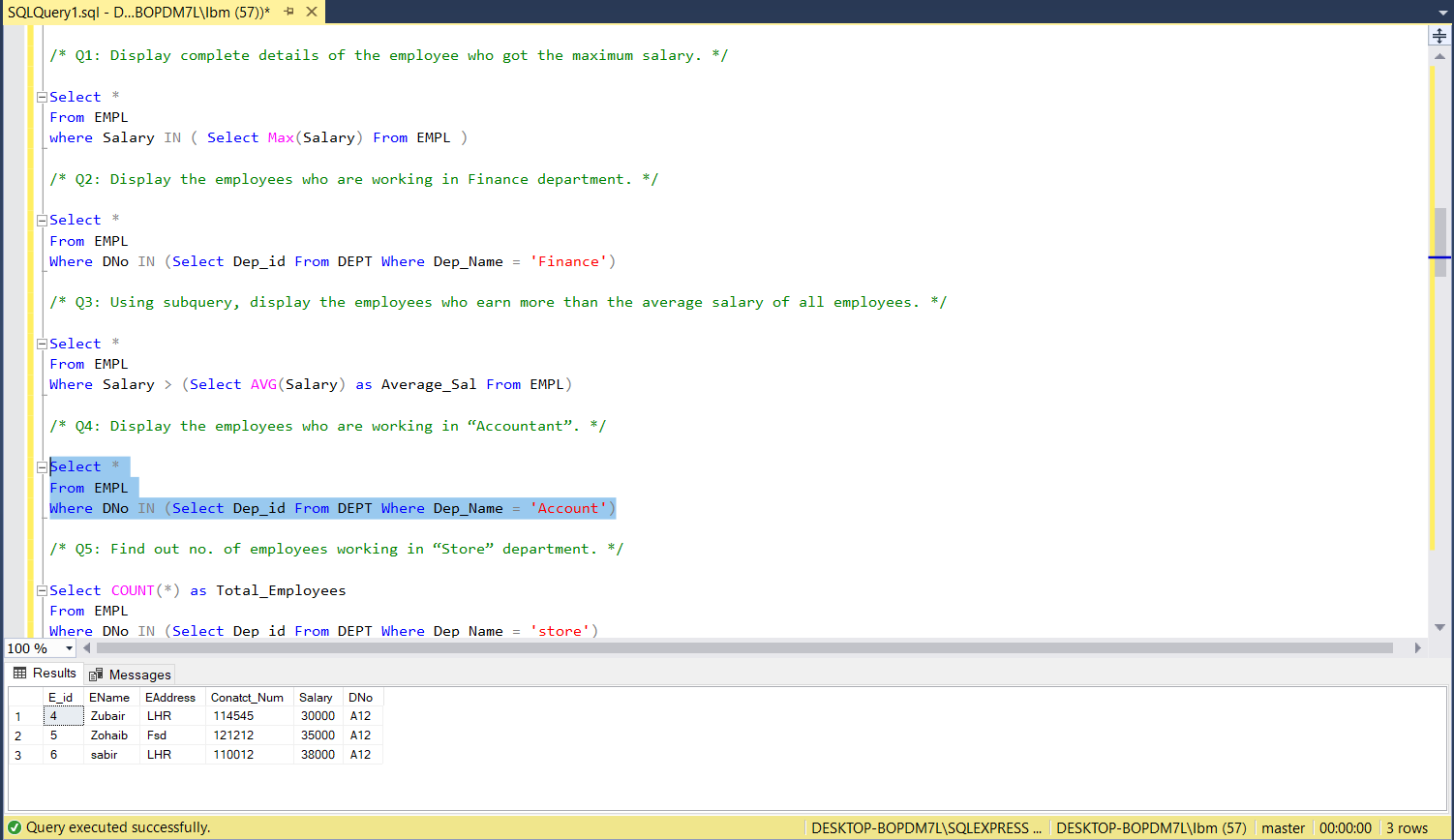
Description automatically generated**

**Question # 3**

**Graphical user interface, text, application

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**Question # 4**

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**Question # 5**

**Graphical user interface, text, application

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**Question # 6**

**Graphical user interface, text, application

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**Question # 7**

**Graphical user interface, text, application

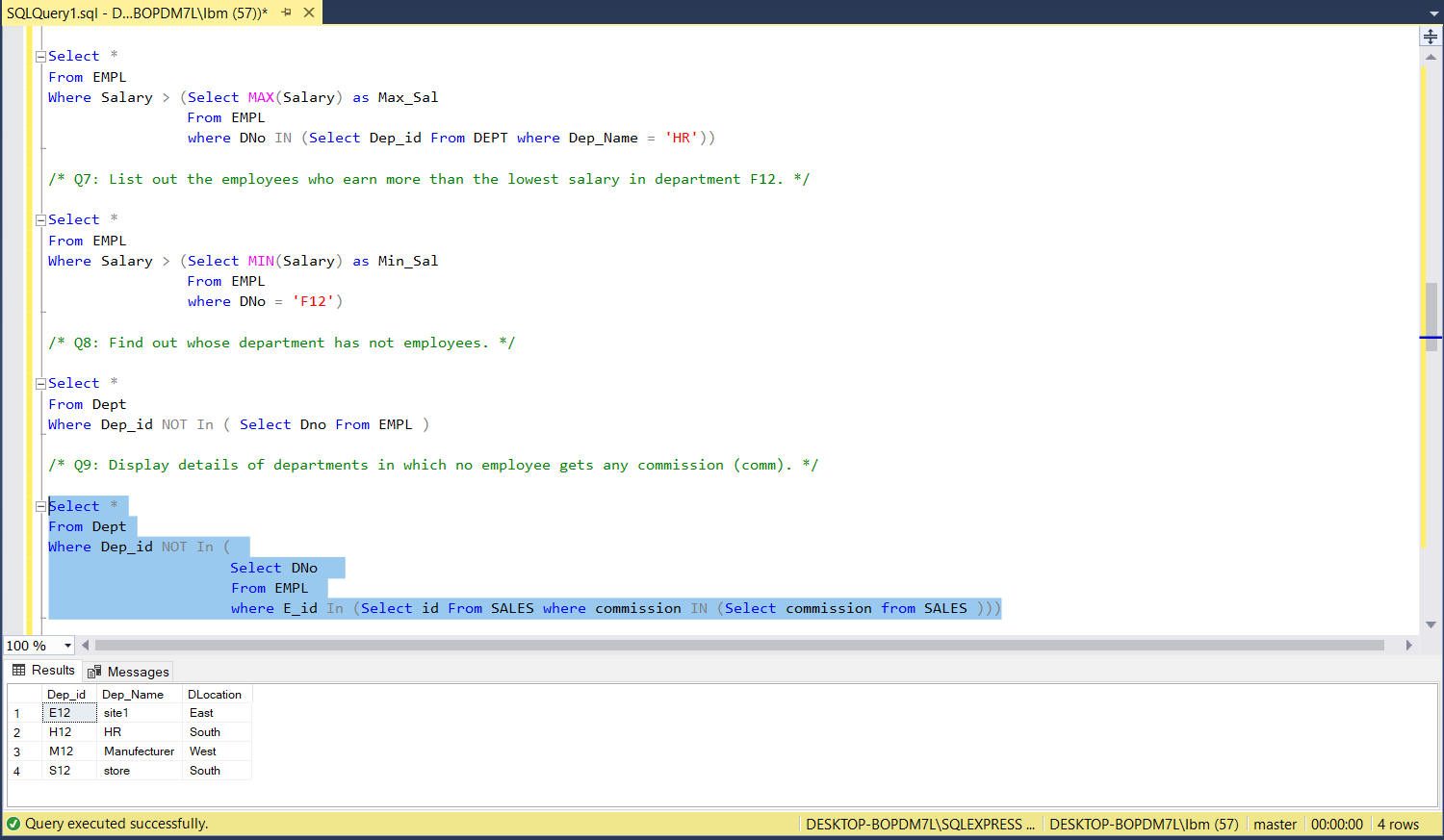
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**Question # 8**

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**Question # 9**

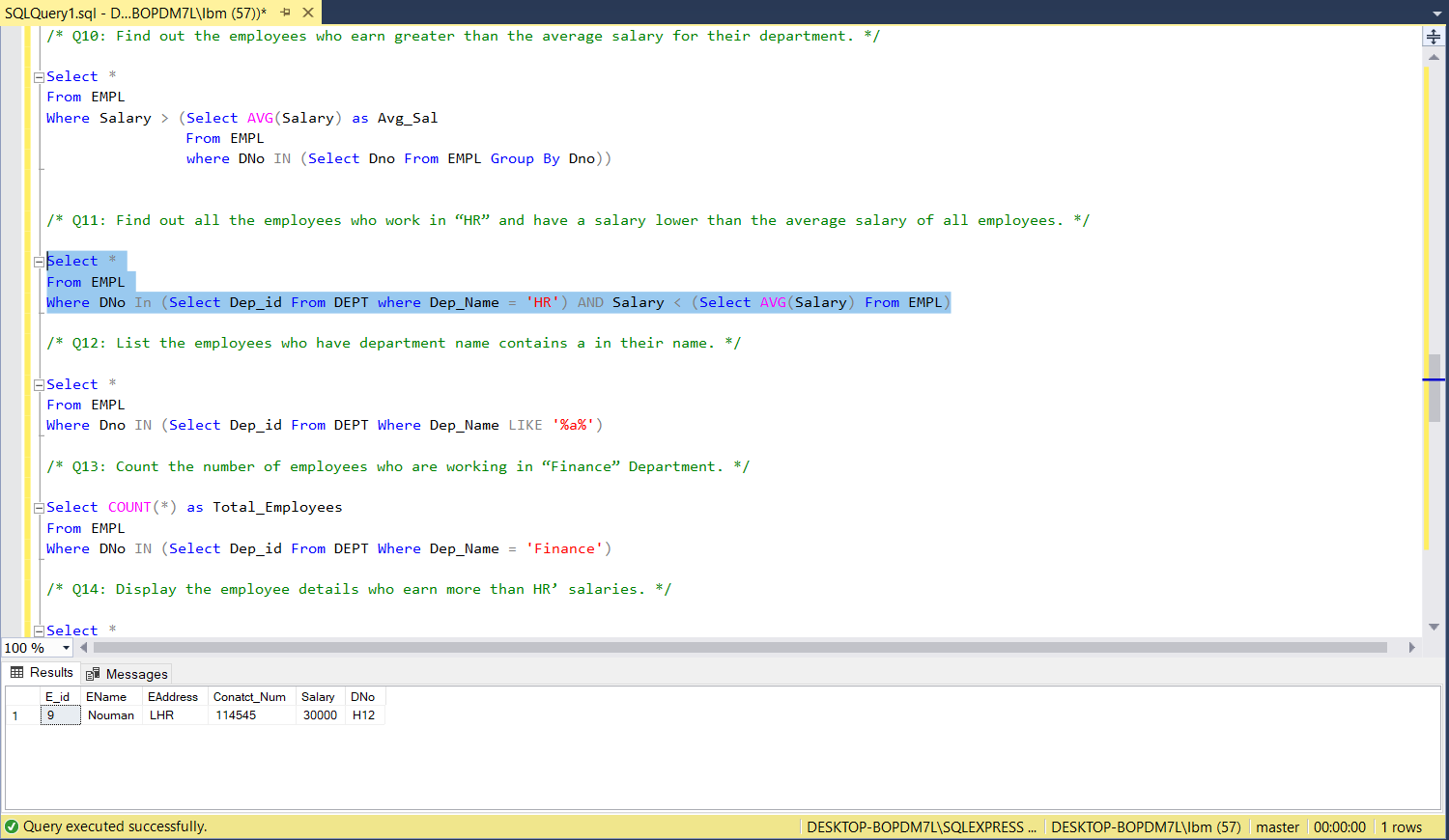
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**Question # 10**

**Graphical user interface, text, application

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**Question # 11**

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**Question # 12**

**Text, application

Description automatically generated**

**Question # 13**

**Graphical user interface, text, application

Description automatically generated**

**Question # 14**

**Graphical user interface, text, application

Description automatically generated**

**Question # 15**

**Graphical user interface, text, application

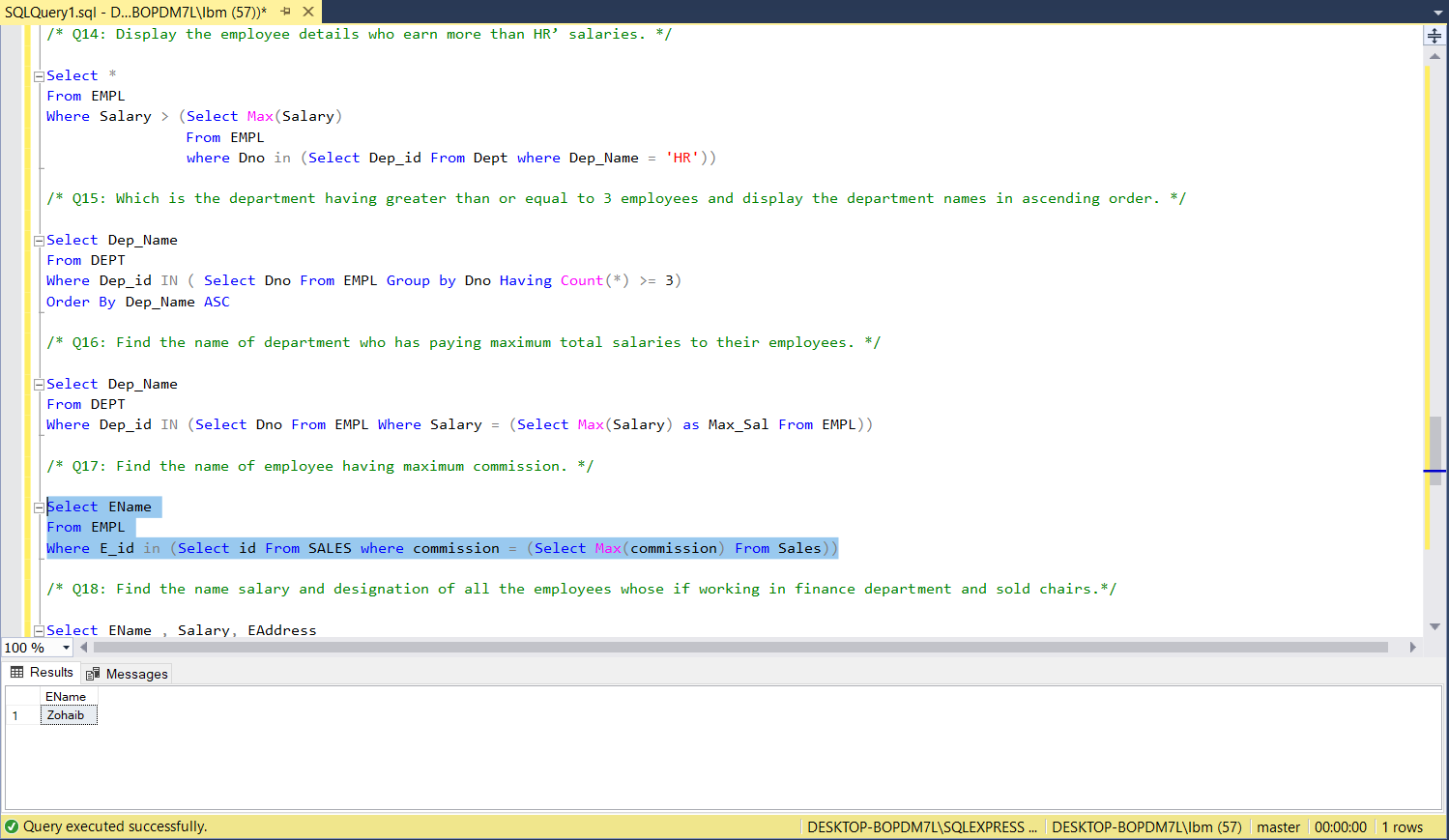
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**Question # 16**

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**Question # 17**

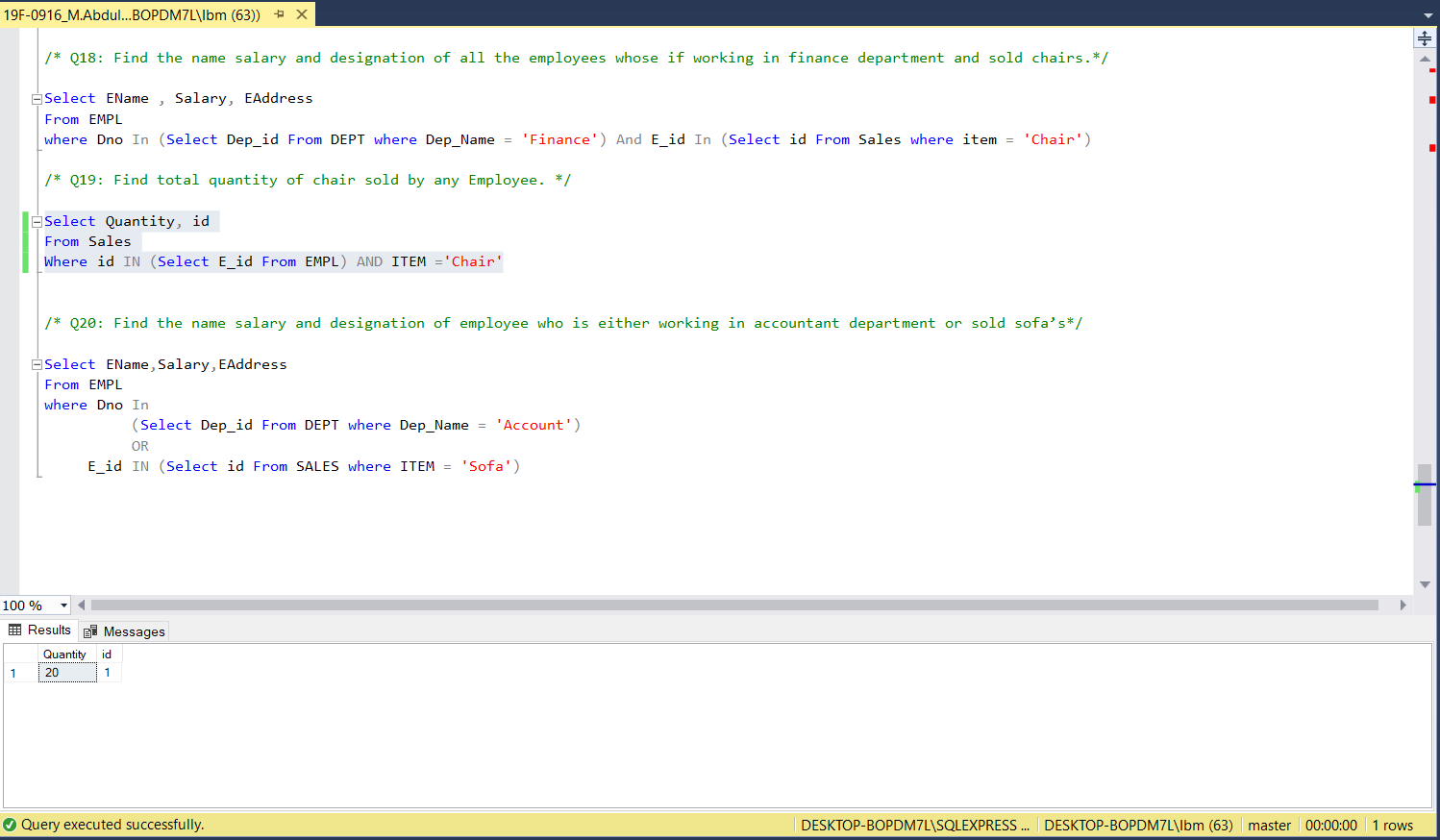
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**Question # 18**

**Graphical user interface, text, application

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**Question # 19**

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**Question # 20**

**Graphical user interface, text, application

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**ALL QUERIES:**

Create Table DEPT

(

Dep\_id char(4) Primary key,

Dep\_Name char(15),

DLocation char(20)

);

insert into DEPT values('F12','Finance','North');

insert into DEPT values('A12','Account','North');

insert into DEPT values('H12','HR','South');

insert into DEPT values('M12','Manufecturer','West');

insert into DEPT values('S12','store','South');

insert into DEPT values('E12','site1','East');

Create table EMPL

(

E\_id int Primary key,

EName char(15),

EAddress char(20),

Conatct\_Num int,

Salary int,

DNo char(4),

foreign key(DNO) references DEPT(Dep\_id)

);

insert into EMPL values(1,'Ali','LHR',1234567,45000,'F12');

insert into EMPL values(2,'Azhar','LHR',1123231,50000,'F12');

insert into EMPL values(3,'Zubair','FSD',2212321,35000,'F12');

insert into EMPL values(4,'Zubair','LHR',114545,30000,'A12');

insert into EMPL values(5,'Zohaib','Fsd',121212,35000,'A12');

insert into EMPL values(6,'sabir','LHR',110012,38000,'A12');

insert into EMPL values(9,'Nouman','LHR',114545,30000,'H12');

insert into EMPL values(8,'Noshair','FSD',114511,40000,'H12');

Create table SALES

(

S\_id int Primary key,

id int,

ITEM char(15),

Quantity int,

sale\_price int,

commission int,

foreign key(id) references EMPL(E\_id)

);

insert into SALES values(11,1,'Chair',20,10000,150);

insert into SALES values(12,1,'Tables',5,15000,200);

insert into SALES values(13,1,'sofa',5,105000,1500);

insert into SALES values(14,2,'Tables',4,12000,150);

insert into SALES values(15,2,'Dress table',6,100000,1600);

insert into SALES values(16,3,'Tables',10,124000,1800);

insert into SALES values(17,3,'Sofa',10,412000,4500);

insert into SALES values(18,4,'Tables',4,12000,150);

insert into SALES values(19,4,'Dressing Tables',8,215000,2500);

insert into SALES values(20,5,'Dressing Tables',15,715000,6500);

Select \* from EMP;

Select \* from DEPT;

Select \* from SALES;

/\* Q1: Display complete details of the employee who got the maximum salary. \*/

Select \*

From EMPL

where Salary IN ( Select Max(Salary) From EMPL )

/\* Q2: Display the employees who are working in Finance department. \*/

Select \*

From EMPL

Where DNo IN (Select Dep\_id From DEPT Where Dep\_Name = 'Finance')

/\* Q3: Using subquery, display the employees who earn more than the average salary of all employees. \*/

Select \*

From EMPL

Where Salary > (Select AVG(Salary) as Average\_Sal From EMPL)

/\* Q4: Display the employees who are working in “Accountant”. \*/

Select \*

From EMPL

Where DNo IN (Select Dep\_id From DEPT Where Dep\_Name = 'Account')

/\* Q5: Find out no. of employees working in “Store” department. \*/

Select COUNT(\*) as Total\_Employees

From EMPL

Where DNo IN (Select Dep\_id From DEPT Where Dep\_Name = 'store')

/\* Q6: List out the employees who earn more than every employee in department HR. \*/

Select \*

From EMPL

Where Salary > (Select MAX(Salary) as Max\_Sal

From EMPL

where DNo IN (Select Dep\_id From DEPT where Dep\_Name = 'HR'))

/\* Q7: List out the employees who earn more than the lowest salary in department F12. \*/

Select \*

From EMPL

Where Salary > (Select MIN(Salary) as Min\_Sal

From EMPL

where DNo = 'F12')

/\* Q8: Find out whose department has not employees. \*/

Select \*

From Dept

Where Dep\_id NOT In ( Select Dno From EMPL )

/\* Q9: Display details of departments in which no employee gets any commission (comm). \*/

Select \*

From Dept

Where Dep\_id NOT In (

Select DNo

From EMPL

where E\_id In (Select id From SALES where commission IN (Select commission from SALES )))

/\* Q10: Find out the employees who earn greater than the average salary for their department. \*/

Select DISTINCT EName,Dno,Salary

From EMPL, (Select Avg(Salary) as AVG\_Sal From EMPL Where Dno In ( Select Dno From EMPL) Group By Dno) T

Group By EName,Dno,T.AVG\_Sal,Salary

Having Salary > T.AVG\_Sal

/\* Q11: Find out all the employees who work in “HR” and have a salary lower than the average salary of all employees. \*/

Select \*

From EMPL

Where DNo In (Select Dep\_id From DEPT where Dep\_Name = 'HR') AND Salary < (Select AVG(Salary) From EMPL)

/\* Q12: List the employees who have department name contains a in their name. \*/

Select \*

From EMPL

Where Dno IN (Select Dep\_id From DEPT Where Dep\_Name LIKE '%a%')

/\* Q13: Count the number of employees who are working in “Finance” Department. \*/

Select COUNT(\*) as Total\_Employees

From EMPL

Where DNo IN (Select Dep\_id From DEPT Where Dep\_Name = 'Finance')

/\* Q14: Display the employee details who earn more than HR’ salaries. \*/

Select \*

From EMPL

Where Salary > (Select Max(Salary)

From EMPL

where Dno in (Select Dep\_id From Dept where Dep\_Name = 'HR'))

/\* Q15: Which is the department having greater than or equal to 3 employees and display the department names in ascending order. \*/

Select Dep\_Name

From DEPT

Where Dep\_id IN ( Select Dno From EMPL Group by Dno Having Count(\*) >= 3)

Order By Dep\_Name ASC

/\* Q16: Find the name of department who has paying maximum total salaries to their employees. \*/

Select Dep\_Name

From DEPT

Where Dep\_id IN (Select Dno From EMPL Where Salary = (Select Max(Salary) as Max\_Sal From EMPL))

/\* Q17: Find the name of employee having maximum commission. \*/

Select EName

From EMPL

Where E\_id in (Select id From SALES where commission = (Select Max(commission) From Sales))

/\* Q18: Find the name salary and designation of all the employees whose if working in finance department and sold chairs.\*/

Select EName , Salary, EAddress

From EMPL

where Dno In (Select Dep\_id From DEPT where Dep\_Name = 'Finance') And E\_id In (Select id From Sales where item = 'Chair')

/\* Q19: Find total quantity of chair sold by any Employee. \*/

Select Quantity, id

From Sales

Where id IN (Select E\_id From EMPL) AND ITEM ='Chair'

/\* Q20: Find the name salary and designation of employee who is either working in accountant department or sold sofa’s\*/

Select EName,Salary,EAddress

From EMPL

where Dno In

(Select Dep\_id From DEPT where Dep\_Name = 'Account')

OR

E\_id IN (Select id From SALES where ITEM = 'Sofa')