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Database Management System

Practical File(Queries)

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```
create table Department_State
(
 Dno int not null primary key,
 Dname varchar(50) null,
 Location varchar(50) null
);
insert into Department_State values(10,'Accounting','New York');
insert into Department_State values(20,'Research','Dallas');
insert into Department_State values(30,'Sales','Chicago');
insert into Department_State values(40,'Operation','Boston');
insert into Department_State values(50,'Marketing','New Delhi');



create table Employee_State
(
Eno char(3) primary key,
Ename varchar(50) not null,
Job_type varchar(50) not null,
Manager char(3),
Hire_date date not null,
Dno int,
Commission decimal(10,2),
Salary decimal(7,2) not null
);
insert into Employee_State values(765,'Martin','Sales_man',783,'22-apr1981',30,1400.00,1250.00);
insert into Employee_State values(756,'Jones','Manager',783,'02-apr-1981', 20,0.00,2300.00 );
insert into Employee_State values(752,'Ward','Sales_man',769,'22-feb-1981',30,500.00,1300.00 );
insert into Employee_State values(749,'Allan','Sales_man',769,'20-feb-1981',30,300.00,2000.00);
insert into Employee_State values(736,'Smith','Clerk',790,'17-dec-1980',20,0.00,1000.00 );
insert into Employee_State values(793,'Miller','Clerk',788,'23-jan-1982',40,0.00,1300.00 );
insert into Employee_State values(792,'Ford','Analyst',756,'03-dec-1981',20,0.00,2600.00 );
insert into Employee_State values(790,'James','Clerk',769,'03-dec-1981',30,0.00,950.00 );
insert into Employee_State values(787,'Adams','Clerk',778,'12-jan-1983',20,0.00,1150.00 );
insert into Employee_State values(784,'Turner','Sales_man',769,'08-sep-1981',30,0.00,1450.00);
insert into Employee_State values(783,'King','President',NULL,'17-nov-1981',10,0.00,2950.00 );
insert into Employee_State values(788,'Scott','Analyst',756,'09-dec-1982',20,0.00,2850.00 );
insert into Employee_State values(778,'Clark','Manager',783,'09-jun-1981',10,0.00,2900.00 );
insert into Employee_State values(769,'Blake','Manager',783,'01-may-1981',30,0.00,2870.00);

alter table Employee_State add foreign key(Dno) references Department_State (Dno);
alter table Employee_State add foreign key(Manager) references Employee_State (Eno);
```

Some useful queries:

```
select * from tabs;
select * from user_constraints where table_name='EMPLOYEE_STATE';
select * from user_constraints where table_name='DEPARTMENT_STATE';
```

describe Employee_State;

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPLOYEE_STATE	ENO	Char	3	-	-	1	-	NULL	-
	ENAME	Varchar2	50	-	-	-	-	NULL	-
	JOB_TYPE	Varchar2	50	-	-	-	-	NULL	-
	MANAGER	Char	3	-	-	-	✓	NULL	-
	HIRE_DATE	Date	7	-	-	-	-	NULL	-
	DNO	Number	-	-	-	-	✓	NULL	-
	COMMISSION	Number	-	10	2	-	✓	NULL	-
	SALARY	Number	-	7	2	-	-	NULL	-

select * from Employee_State;

ENO	ENAME	JOB_TYPE	MANAGER	HIRE_DATE	DNO	COMMISSION	SALARY
749	Allan	Sales_man	769	20-FEB-81	30	300	2000
792	Ford	Analyst	756	03-DEC-81	20	0	2600
790	James	Clerk	769	03-DEC-81	30	0	950
783	King	President	-	17-NOV-81	10	0	2950
769	Blake	Manager	783	01-MAY-81	30	0	2870
765	Martin	Sales_man	783	22-APR-81	30	1400	1250
752	Ward	Sales_man	769	22-FEB-81	30	500	1300
736	Smith	Clerk	790	17-DEC-80	20	0	1000
787	Adams	Clerk	778	12-JAN-83	20	0	1150
788	Scott	Analyst	756	09-DEC-82	20	0	2850
778	Clark	Manager	783	09-JUN-81	10	0	2900
756	Jones	Manager	783	02-APR-81	20	0	2300
793	Miller	Clerk	788	23-JAN-82	40	0	1300
784	Turner	Sales_man	769	08-SEP-81	30	0	1450

describe Department_State;

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DEPARTMENT_STATE	DNO	Number	-	-	-	1	-	NULL	-
	DNAME	Varchar2	50	-	-	-	✓	NULL	-
	LOCATION	Varchar2	50	-	-	-	✓	'New Delhi'	-

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select * from Department_State;

DNO	DNAME	LOCATION
20	Research	Dallas
30	Sales	Chicago
50	Marketing	New Delhi
10	Accounting	New York
40	Operation	Boston

Queries:

1) Query to display Employee Name, Job, Hire Date, Employee Number; for each employee with the Employee Number appearing **first**.

SELECT Eno, Ename, Job_type, Hire_date
FROM Employee_State;

ENO	ENAME	JOB_TYPE	HIRE_DATE
749	Allan	Sales_man	20-FEB-81
792	Ford	Analyst	03-DEC-81
790	James	Clerk	03-DEC-81
783	King	President	17-NOV-81
769	Blake	Manager	01-MAY-81
765	Martin	Sales_man	22-APR-81
752	Ward	Sales_man	22-FEB-81
736	Smith	Clerk	17-DEC-80
787	Adams	Clerk	12-JAN-83
788	Scott	Analyst	09-DEC-82
778	Clark	Manager	09-JUN-81
756	Jones	Manager	02-APR-81
793	Miller	Clerk	23-JAN-82
784	Turner	Sales_man	08-SEP-81

2) Query to display Unique Jobs from the Employee Table.

SELECT unique Job_type
FROM Employee_State;

JOB_TYPE
Analyst
Clerk
Manager
President
Sales_man

3) Query to display the Employee Name concatenated by a Job separated by a comma.

```
SELECT Ename||','||Job_type
FROM Employee_State;
```

ENAME||','||JOB_TYPE
Allan,Sales_man
Ford,Analyst
James,Clerk
King,President
Blake,Manager
Martin,Sales_man
Ward,Sales_man
Smith,Clerk
Adams,Clerk
Scott,Analyst
Clark,Manager
Jones,Manager
Miller,Clerk
Turner,Sales_man

4) Query to display all the data from the Employee Table. Separate each Column by a comma and name the said column as THE_OUTPUT.

```
SELECT ( Eno||','||Ename||','||Job_type||','||Manager||','||
Hire_date||','||Dno||','||Commission||','||Salary)  "THE_OUTPUT"
FROM Employee_State;
```

THE_OUTPUT
749,Allan,Sales_man,769,20-FEB-81,30,300,2000
792,Ford,Analyst,756,03-DEC-81,20,0,2600
790,James,Clerk,769,03-DEC-81,30,0,950
783,King,President,,17-NOV-81,10,0,2950
769,Blake,Manager,783,01-MAY-81,30,0,2870
765,Martin,Sales_man,783,22-APR-81,30,1400,1250
752,Ward,Sales_man,769,22-FEB-81,30,500,1300
736,Smith,Clerk,790,17-DEC-80,20,0,1000
787,Adams,Clerk,778,12-JAN-83,20,0,1150
788,Scott,Analyst,756,09-DEC-82,20,0,2850
778,Clark,Manager,783,09-JUN-81,10,0,2900
756,Jones,Manager,783,02-APR-81,20,0,2300
793,Miller,Clerk,788,23-JAN-82,40,0,1300
784,Turner,Sales_man,769,08-SEP-81,30,0,1450

5) Query to display the Employee Name & Salary of all the employees earning more than $2850.

```
SELECT Ename, Salary FROM Employee_State
WHERE salary>2850;
```

ENAME	SALARY
King	2950
Blake	2870
Clark	2900

6) Query to display Employee Name & Department Number for the Employee No= 790.

```
SELECT Ename, Dno
FROM Employee_State
WHERE Eno=790;
```

ENAME	DNO
James	30

7) Query to display Employee Name & Salary for all employees whose salary **is not in the range of** $1500 and $2850.

```
SELECT Ename, Salary
FROM Employee_State
WHERE (Salary NOT BETWEEN 1500 AND 2850);
```

ENAME	SALARY
James	950
King	2950
Blake	2870
Martin	1250
Ward	1300
Smith	1000
Adams	1150
Clark	2900
Miller	1300
Turner	1450

8) Query to display Employee Name, Job, and Hire Date of all the employees hired between Feb 20, 1981 and May 1, 1981. Order the query in **ascending order of Start Date.**

```
SELECT Ename, Job_type, Hire_date
FROM Employee_State
WHERE (Hire_date BETWEEN '20-FEB-81' AND '01-MAY-81')
ORDER BY Hire_date ;
```

ENAME	JOB_TYPE	HIRE_DATE
Allan	Sales_man	20-FEB-81
Ward	Sales_man	22-FEB-81
Jones	Manager	02-APR-81
Martin	Sales_man	22-APR-81
Blake	Manager	01-MAY-81

9) Query to display Employee Name & Department No. of all the employees in Dept 10 and Dept 30 in the **alphabetical order by name**.

```
SELECT Ename, Dno
FROM Employee_State
WHERE (Dno=10 OR Dno=30)
ORDER BY Ename;
```

ENAME	DNO
Allan	30
Blake	30
Clark	10
James	30
King	10
Martin	30
Turner	30
Ward	30

10) Query to display Employee Name & Salary of employees who earned more than $1500 and are in Department 10 or 30.

```
SELECT Ename, Salary
FROM Employee_State
WHERE (Dno=10 OR Dno=30) AND Salary>1500;
```

ENAME	SALARY
Allan	2000
King	2950
Blake	2870
Clark	2900

11) Query to display Name & Hire Date of every Employee who was hired in 1981.

```
SELECT Ename, Hire_date
FROM Employee_State
WHERE Hire_date LIKE '__-___-81';
```

ENAME	HIRE_DATE
Allan	20-FEB-81
Ford	03-DEC-81
James	03-DEC-81
King	17-NOV-81
Blake	01-MAY-81
Martin	22-APR-81
Ward	22-FEB-81
Clark	09-JUN-81
Jones	02-APR-81
Turner	08-SEP-81

12) Query to display Name & Job of all employees who don't have a current Manager.

```
SELECT Ename, Job_type
FROM Employee_State
WHERE Manager IS NULL;
```

ENAME	JOB_TYPE
King	President

13) Query to display the Name, Salary & Commission for all the employees who earn commission. Sort the data in **descending order** of Salary and Commission.

```
SELECT Ename, Salary, Commission
FROM Employee_State
WHERE Commission>0.00
ORDER BY Salary DESC , Commission DESC ;
```

ENAME	SALARY	COMMISSION
Allan	2000	300
Ward	1300	500
Martin	1250	1400

14) Query to display Name of all the employees where the third letter of their name is ‘A’.

```
SELECT Ename
FROM Employee_State
WHERE Ename LIKE '__a%';
```

ENAME
Blake
Adams
Clark

15) Query to display Name of all employees either have two ‘R’s or have two ‘A’s in their name & are either in Dept No = 30 or their Manger’s Employee No = 778.

```
SELECT Ename
FROM Employee_State
WHERE (Ename LIKE 'A%a%' OR Ename LIKE '%r%r%') AND (Dno=30 OR Manager=778);
```

ENAME
Allan
Adams
Turner

16) Query to display Name, Job and Salary of all employees whose Job is Clerical or Analyst & their salaries are not equal to 1000, 3000, or 5000.

```
SELECT Ename, Job_type, Salary
FROM Employee_State
WHERE Job_type IN('Clerk','Analyst') AND Salary NOT IN(1000,3000,5000);
```

ENAME	JOB_TYPE	SALARY
Ford	Analyst	2600
James	Clerk	950
Adams	Clerk	1150
Scott	Analyst	2850
Miller	Clerk	1300

17) Query to display Name, Salary and Commission for all employees whose Commission Amount is greater than their Salary increased by 5 %.

```
SELECT Ename, Salary, Commission
FROM Employee_State
WHERE Commission>(Salary+Salary*0.05);
```

ENAME	SALARY	COMMISSION
Martin	1250	1400

18) Query to display the Current Date.

```
SELECT SYSDATE
FROM dual;
```

SYSDATE
25-SEP-15

19) Query to display Employee No., Name, Salary and the Salary increased by 15 % expressed as a absolute whole number.

```
SELECT ENo, Ename, Salary, ROUND(Salary+Salary*0.15) as "NEW SALARY"
FROM Employee_State ;
```

ENO	ENAME	SALARY	NEW SALARY
749	Allan	2000	2300
792	Ford	2600	2990
790	James	950	1093
783	King	2950	3393
769	Blake	2870	3301
765	Martin	1250	1438
752	Ward	1300	1495
736	Smith	1000	1150
787	Adams	1150	1323
788	Scott	2850	3278
778	Clark	2900	3335
756	Jones	2300	2645
793	Miller	1300	1495
784	Turner	1450	1668

20) Query to display Name, Hire Date and Salary Review Date which is the 1st Monday after six months of employment.

```
SELECT Ename, Hire_date, NEXT_DAY(ADD_MONTHS(Hire_date, 6), 'Monday')
as "REVIEW DATE"
FROM Employee_State;
```

ENAME	HIRE_DATE	REVIEW DATE
Allan	20-FEB-81	24-AUG-81
Ford	03-DEC-81	07-JUN-82
James	03-DEC-81	07-JUN-82
King	17-NOV-81	24-MAY-82
Blake	01-MAY-81	02-NOV-81
Martin	22-APR-81	26-OCT-81
Ward	22-FEB-81	24-AUG-81
Smith	17-DEC-80	22-JUN-81
Adams	12-JAN-83	18-JUL-83
Scott	09-DEC-82	13-JUN-83
Clark	09-JUN-81	14-DEC-81
Jones	02-APR-81	05-OCT-81
Miller	23-JAN-82	26-JUL-82
Turner	08-SEP-81	15-MAR-82

21) Query to display the employees that earn a salary that is higher than the salary of any of the clerks.

```
SELECT *
FROM Employee_State
WHERE Salary > ANY(SELECT Salary FROM Employee_State where Job_type='Clerk');
```

ENO	ENAME	JOB_TYPE	MANAGER	HIRE_DATE	DNO	COMMISSION	SALARY
783	King	President	-	17-NOV-81	10	0	2950
778	Clark	Manager	783	09-JUN-81	10	0	2900
769	Blake	Manager	783	01-MAY-81	30	0	2870
788	Scott	Analyst	756	09-DEC-82	20	0	2850
792	Ford	Analyst	756	03-DEC-81	20	0	2600
756	Jones	Manager	783	02-APR-81	20	0	2300
749	Allan	Sales_man	769	20-FEB-81	30	300	2000
784	Turner	Sales_man	769	08-SEP-81	30	0	1450
752	Ward	Sales_man	769	22-FEB-81	30	500	1300
793	Miller	Clerk	788	23-JAN-82	40	0	1300
765	Martin	Sales_man	783	22-APR-81	30	1400	1250
787	Adams	Clerk	778	12-JAN-83	20	0	1150
736	Smith	Clerk	790	17-DEC-80	20	0	1000

22) Query to display Name and calculate the number of months between today and the date each employee was hired.

```
SELECT Ename, ROUND(MONTHS_BETWEEN((Select SYSDATE from dual), Hire_date))
as "NUMBER_OF_MONTHS"
FROM Employee_State;
```

ENAME	NUMBER_OF_MONTHS
Allan	415
Ford	406
James	406
King	406
Blake	413
Martin	413
Ward	415
Smith	417
Adams	392
Scott	394
Clark	412
Jones	414
Miller	404
Turner	409

23) Query to display the following for each employee:-
<E-Name> earns < Salary> monthly but wants < 3 * Current Salary >.
Label the Column as **Dream Salary**.

```
SELECT (Ename||' earns '||Salary||' monthly but wants '||3*Salary)
as "Dream Salary"
FROM Employee_State;
```

Dream Salary
Allan earns 2000 monthly but wants 6000
Ford earns 2600 monthly but wants 7800
James earns 950 monthly but wants 2850
King earns 2950 monthly but wants 8850
Blake earns 2870 monthly but wants 8610
Martin earns 1250 monthly but wants 3750
Ward earns 1300 monthly but wants 3900
Smith earns 1000 monthly but wants 3000
Adams earns 1150 monthly but wants 3450
Scott earns 2850 monthly but wants 8550
Clark earns 2900 monthly but wants 8700
Jones earns 2300 monthly but wants 6900
Miller earns 1300 monthly but wants 3900
Turner earns 1450 monthly but wants 4350

24) Query to display Name and Salary for all employees. Format the salary to be **15** character long, **left padded** with $ sign.

```
SELECT Ename, LPAD(Salary,15,'$') as "Salary"
FROM Employee_State;
```

ENAME	Salary
Allan	$$$$$$$$$$2000
Ford	$$$$$$$$$$2600
James	$$$$$$$$$$950
King	$$$$$$$$$$2950
Blake	$$$$$$$$$$2870
Martin	$$$$$$$$$$1250
Ward	$$$$$$$$$$1300
Smith	$$$$$$$$$$1000
Adams	$$$$$$$$$$1150
Scott	$$$$$$$$$$2850
Clark	$$$$$$$$$$2900
Jones	$$$$$$$$$$2300
Miller	$$$$$$$$$$1300
Turner	$$$$$$$$$$1450

25) Query to display Name with the 1st letter capitalized and all other letter lower case & length of their name of all the employees whose name starts with ‘J’,’A’ and ‘M’.

```
SELECT INITCAP(Ename) as "Name", LENGTH(Ename) as "Length"
FROM Employee_State
WHERE Ename like 'J%' OR Ename like 'A%' OR Ename like 'M%' ;
```

Name	Length
Allan	5
James	5
Martin	6
Adams	5
Jones	5
Miller	6

26) Query to display Name, Hire Date and Day of the week on which the employee started.

```
SELECT Ename, Hire_date, TO_CHAR(Hire_date,'DAY') as "DAY"
FROM Employee_State;
```

ENAME	HIRE_DATE	DAY
Allan	20-FEB-81	FRIDAY
Ford	03-DEC-81	THURSDAY
James	03-DEC-81	THURSDAY
King	17-NOV-81	TUESDAY
Blake	01-MAY-81	FRIDAY
Martin	22-APR-81	WEDNESDAY
Ward	22-FEB-81	SUNDAY
Smith	17-DEC-80	WEDNESDAY
Adams	12-JAN-83	WEDNESDAY
Scott	09-DEC-82	THURSDAY
Clark	09-JUN-81	TUESDAY
Jones	02-APR-81	THURSDAY
Miller	23-JAN-82	SATURDAY
Turner	08-SEP-81	TUESDAY

27) Query to display Name and Commission Amount. If the employee does not earn commission then use default value 'No Commission'.

SELECT Ename, DECODE(Commission,0,'No Commission',Commission) as "Commission" FROM Employee_State;

ENAME	Commission
Allan	300
Ford	No Commission
James	No Commission
King	No Commission
Blake	No Commission
Martin	1400
Ward	500
Smith	No Commission
Adams	No Commission
Scott	No Commission
Clark	No Commission
Jones	No Commission
Miller	No Commission
Turner	No Commission

28) Query to display Name, Department Name and Department No for all the employees.

SELECT Ename, d.Dname, d.Dno FROM Employee_State e , Department_State d WHERE e.Dno=d.Dno;

ENAME	DNAME	DNO
Allan	Sales	30
Ford	Research	20
James	Sales	30
King	Accounting	10
Blake	Sales	30
Martin	Sales	30
Ward	Sales	30
Smith	Research	20
Adams	Research	20
Scott	Research	20
Clark	Accounting	10
Jones	Research	20
Miller	Operation	40
Turner	Sales	30

29) Query to display Unique Listing of all Jobs that are in Department #30.

```
SELECT distinct Job_type
FROM Employee_State
WHERE Dno=30;
```

JOB_TYPE
Clerk
Manager
Sales_man

30) Query to display Name, Department Name and Location for all employees earning a commission.

```
SELECT Ename, d.Dname, d.Location
FROM Employee_State e , Department_State d
WHERE e.Dno=d.Dno AND e.Commission>0.00;
```

ENAME	DNAME	LOCATION
Allan	Sales	Chicago
Martin	Sales	Chicago
Ward	Sales	Chicago

31) Query to display Name, Dept Name of all employees who have an ‘A’ in their name.

```
SELECT Ename, Dname FROM Employee_State e , Department_State d
WHERE e.Dno=d.Dno AND Ename LIKE '%A%';
```

ENAME	DNAME
Allan	Sales
Adams	Research

32) Query to display Name, Job, Department No. and Department Name for all the employees working at the **Dallas location**.

```
SELECT Ename, Job_type, d.Dno, d.Dname
FROM Employee_State e , Department_State d
WHERE e.Dno=d.Dno AND d.Location='Dallas';
```

ENAME	JOB_TYPE	DNO	DNAME
Ford	Analyst	20	Research
Smith	Clerk	20	Research
Adams	Clerk	20	Research
Scott	Analyst	20	Research
Jones	Manager	20	Research

33) Query to display Name and Employee No. along with their Manager's Name and Manager's employee no.

```
SELECT e.Ename, e.Eno , m.Ename as "Manager's Ename", m.Eno as "Manager's Eno"
FROM Employee_State e , Employee_State m
WHERE e.Manager=m.Eno;
```

ENAME	ENO	Manager's Ename	Manager's Eno
Smith	736	James	790
Jones	756	King	783
Clark	778	King	783
Martin	765	King	783
Blake	769	King	783
Turner	784	Blake	769
Ward	752	Blake	769
James	790	Blake	769
Allan	749	Blake	769
Miller	793	Scott	788
Adams	787	Clark	778
Scott	788	Jones	756
Ford	792	Jones	756

34) Query to display Name and Employee no. along with their Manger's Name and the Manager's employee no; along with the Employees' Name who **do not** have a Manager.

```
SELECT e.Ename, e.Eno, m.Ename as "Manager's Name", m.Eno as "Manager's Eno"
FROM Employee_State e LEFT OUTER JOIN Employee_State m
ON e.Manager=m.Eno;
```

ENAME	ENO	Manager's Name	Manager's Eno
Smith	736	James	790
Jones	756	King	783
Clark	778	King	783
Martin	765	King	783
Blake	769	King	783
Turner	784	Blake	769
Ward	752	Blake	769
James	790	Blake	769
Allan	749	Blake	769
Miller	793	Scott	788
Adams	787	Clark	778
Scott	788	Jones	756
Ford	792	Jones	756
King	783	-	-

35) Query to display the Employee No, Name and Salary for all employees who earn than the average salary and who work in a Department with any employee with a 'T' in his/her name.

```
SELECT Eno, Ename, Salary
FROM Employee_State
WHERE Salary > (SELECT AVG(Salary) FROM Employee_State)
AND
Dno IN(
SELECT Dno
FROM Employee_State
WHERE Ename LIKE '%T%'
);
```

ENO	ENAME	SALARY
769	Blake	2870
749	Allan	2000

36) Query to display Name, Dept No. & Salary of any employee whose department No. and salary matches both the department no. and the salary of any employee who earns a commission.

```
SELECT Ename, Dno, Salary
FROM Employee_State e
WHERE (Dno,Salary) IN
(SELECT Dno , Salary FROM  Employee_State WHERE Commission>0);
```

ENAME	DNO	SALARY
Allan	30	2000
Martin	30	1250
Ward	30	1300

37) Query to display Name, Hire Date of any employee hired **after** the employee **Blake** was hired by the Company.

```
SELECT Ename, Hire_date
FROM Employee_State
WHERE Hire_date> (SELECT Hire_date FROM Employee_State where Ename='Blake');
```

ENAME	HIRE_DATE
Ford	03-DEC-81
James	03-DEC-81
King	17-NOV-81
Adams	12-JAN-83
Scott	09-DEC-82
Clark	09-JUN-81
Miller	23-JAN-82
Turner	08-SEP-81

38) Query to display Name and Hire Dates of all Employees along with their Manager's Name and Hire Date for all the employees **who were hired before** their managers.

```
SELECT e.Ename, e.Hire_date,
m.Ename as "Manager's Ename", m.Hire_date as "Manager's Hire_date"
FROM Employee_State e , Employee_State m
WHERE e.Manager=m.Eno
AND ( e.Hire_Date < m.Hire_date );
```

ENAME	HIRE_DATE	Manager's Ename	Manager's Hire_date
Smith	17-DEC-80	James	03-DEC-81
Jones	02-APR-81	King	17-NOV-81
Clark	09-JUN-81	King	17-NOV-81
Martin	22-APR-81	King	17-NOV-81
Blake	01-MAY-81	King	17-NOV-81
Ward	22-FEB-81	Blake	01-MAY-81
Allan	20-FEB-81	Blake	01-MAY-81
Miller	23-JAN-82	Scott	09-DEC-82

39) Query to display Name and Salaries represented by Asteristisks – "Each asterisks (*) signifying **$100**.

```
SELECT Ename, RPAD(' ',(Salary/100)+1,'*') as Salary
FROM Employee_State;
```

ENAME	SALARY
Allan	********************
Ford	**************************
James	*********
King	******************************
Blake	******************************
Martin	************
Ward	************
Smith	**********
Adams	**********
Scott	******************************
Clark	******************************
Jones	**********************
Miller	************
Turner	************

40) Query to display the Highest, Lowest, Sum and Average Salaries of all the employees

```
SELECT MAX(Salary), MIN(Salary), SUM(Salary), ROUND(AVG(Salary),2)
FROM Employee_State;
```

MAX(SALARY)	MIN(SALARY)	SUM(SALARY)	ROUND(AVG(SALARY),2)
2950	950	26870	1919.29

41) Query to display Highest, Lowest, Sum and Average Salary for each unique Job Type.

```
SELECT Job_Type, MAX(Salary), MIN(Salary), SUM(Salary), AVG(Salary)
FROM Employee_State GROUP BY Job_Type;
```

JOB_TYPE	MAX(SALARY)	MIN(SALARY)	SUM(SALARY)	AVG(SALARY)
Analyst	2850	2600	5450	2725
Clerk	1300	950	4400	1100
Manager	2900	2300	8070	2690
President	2950	2950	2950	2950
Sales_man	2000	1250	6000	1500

42) Query to display the number of employees performing the same Job type functions.

```
SELECT Job_Type, COUNT(*)
FROM Employee_State
GROUP BY Job_Type;
```

JOB_TYPE	COUNT(*)
Analyst	2
Clerk	4
Manager	3
President	1
Sales_man	4

43) Query to display the no. of managers without listing their names.

```
SELECT COUNT(distinct Manager)
FROM Employee_State;
```

COUNT(DISTINCTMANAGER)
6

44) Query to display the Difference b/w the Highest and Lowest Salaries.

```
SELECT (MAX(Salary) - MIN(Salary))
FROM Employee_State;
```

(MAX(SALARY)-MIN(SALARY))
2000

45) Query to display the Manager's No. & the Salary of the Lowest paid employee for that respective manager. **Exclude** anyone where the Manager ID is **not known**. Exclude any groups where the minimum salary is less than $1000.

```
SELECT Manager, MIN(Salary)
FROM Employee_State
WHERE Manager IS NOT NULL
GROUP BY Manager
HAVING (MIN(Salary)>=1000);
```

MANAGER	MIN(SALARY)
778	1150
788	1300
756	2600
790	1000
783	1250

46) Query to display the Department Name, Location Name, No. of Employees & the average salary for all employees in that department.

```
SELECT Dname, Location, COUNT(*) "NO_OF_EMPLOYEES", ROUND(AVG(Salary),2)
FROM Employee_State e , Department_State d
WHERE e.Dno=d.Dno
GROUP BY e.Dno, d.Dname, d.Location;
```

DNAME	LOCATION	NO_OF_EMPLOYEES	ROUND(AVG(SALARY),2)
Operation	Boston	1	1300
Research	Dallas	5	1980
Accounting	New York	2	2925
Sales	Chicago	6	1636.67

47) Query to display Name and Hire Date for all employees in the same dept. as Blake.

```
SELECT Ename, Hire_date
FROM Employee_State
WHERE Dno= (SELECT Dno FROM Employee_State where Ename='Blake' );
```

ENAME	HIRE_DATE
Allan	20-FEB-81
James	03-DEC-81
Blake	01-MAY-81
Martin	22-APR-81
Ward	22-FEB-81
Turner	08-SEP-81

48) Query to display the Employee No. & Name for all employees who earn more than the average salary.

```
SELECT Eno, Ename
FROM Employee_State
WHERE Salary > (SELECT AVG(Salary) FROM Employee_State);
```

ENO	ENAME
749	Allan
792	Ford
783	King
769	Blake
788	Scott
778	Clark
756	Jones

49) Query to display Employee Number & Name for all employees who work in a department with any employee whose name contains a 'T'.

```
SELECT Eno, Ename
FROM Employee_State
WHERE Dno IN(
SELECT e.Dno FROM Department_State d, Employee_State e
WHERE d.Dno=e.Dno AND e.Ename LIKE '%T%'
);
```

ENO	ENAME
784	Turner
752	Ward
765	Martin
769	Blake
790	James
749	Allan

50) Query to display the employee name and salary of all employees who report to King.

```
SELECT Ename, Salary
FROM Employee_State
WHERE Manager= (SELECT Eno FROM Employee_State where Ename='King');
```

ENAME	SALARY
Blake	2870
Martin	1250
Clark	2900
Jones	2300

51) Query to display the Department No, Name & Job for all employees in the Sales Dept.

```
SELECT Dno, Ename, Job_type
FROM Employee_State
WHERE Dno= (SELECT Dno from Department_State WHERE Dname='Sales');
```

DNO	ENAME	JOB_TYPE
30	Allan	Sales_man
30	James	Clerk
30	Blake	Manager
30	Martin	Sales_man
30	Ward	Sales_man
30	Turner	Sales_man

52) Select manager name getting salary greater than average salary of employees in his department.

```
SELECT m.Ename
FROM Employee_State e, Employee_State m
WHERE e.Manager = m.Eno
GROUP BY m.Eno, m.Ename, m.Salary
HAVING m.Salary > AVG(e.Salary);
```

ENAME
Scott
Clark
King
Blake