DATABASE MANAGEMENT

Practicals

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

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

alter table Employee add foreign key(Dno) references Department(Dno) ;
alter table Employee add foreign key(Manager) references Employee(Eno);
```

Some useful queries:

```
select * from tabs;
select * from user_constraints where table_name='EMPLOYEE';
select * from user_constraints where table_name='DEPARTMENT'
```

describe Employee;

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPLOYEE	ENO	Char	3	-	-	1	-	-	-
	ENAME	Varchar2	50	-	-	-	-	-	-
	JOB_TYPE	Varchar2	50	-	-	-	-	-	-
	MANAGER	Char	3	-	-	-	✓	-	-
	HIRE_DATE	Date	7	-	-	-	-	-	-
	DNO	Number	-	-	0	-	✓	-	-
	COMMISION	Number	-	10	2	-	✓	-	-
	SALARY	Number	-	7	2	-	-	-	-

select * from Employee;

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

desc Department ;

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DEPARTMENT	DNO	Number	-	-	0	1	-	-	-
	DNAME	Varchar2	50	-	-	-	✓	-	-
	LOCATION	Varchar2	50	-	-	-	✓	-	-

select * from Department;

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

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;
```

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

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

```
SELECT distinct Job_type
FROM employee;
```

JOB_TYPE
Manager
Clerk
Analyst
President
Sales_man

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

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

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

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||','||Commision||','||Salary ) as THE_OUTPUT
FROM employee;
```

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

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

```
SELECT Ename, salary
FROM employee
WHERE salary>2850;
```

ENAME	SALARY
King	2950
Clark	2900
Blake	2870

6) Query to display Employee Name & Department Number for the Employee No= 7900.

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

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

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
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
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
where (Dno=10 OR Dno=30)
AND Salary>1500;
```

ENAME	SALARY
Allan	2000
King	2950
Clark	2900
Blake	2870

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

```
SELECT Ename, Hire_date
FROM employee
where Hire_date LIKE '%81';
```

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

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

```
SELECT Ename, Job_type
FROM employee
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, Commision
FROM employee
WHERE Commision>0.00
ORDER BY Salary desc , Commision desc ;
```

ENAME	SALARY	COMMISION
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
WHERE Ename LIKE '__a%';
```

ENAME
Adams
Clark
Blake

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 = 7788.

```
SELECT Ename
FROM employee
WHERE (Ename LIKE '%a%a%' OR Ename LIKE '%r%r%')
AND
(Dno=30 OR Manager=7788);
```

ENAME
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
WHERE Job_type IN('Clerk','Analyst')
AND Salary NOT IN(1000,3000,5000);
```

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

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, Commision
FROM employee
WHERE Commision>(Salary*1.05);
```

ENAME	SALARY	COMMISION
Martin	1250	1400

18) Query to display the Current Date.

```
SELECT SYSDATE
FROM dual;
```

SYSDATE
23-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 ;
```

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

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;
```

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

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

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

ENO	ENAME	JOB_TYPE	MANAGER	HIRE_DATE	DNO	COMMISION	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;
```

ENAME	NUMBER_OF_MONTHS
Martin	413
Jones	414
Ward	415
Allan	415
Smith	417
Miller	404
Ford	406
James	406
Adams	392
Turner	408
King	406
Scott	393
Clark	411
Blake	413

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;
```

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

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;
```

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

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
WHERE Ename like 'J%'
OR Ename like 'A%'
OR Ename like 'M%' ;
```

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

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;
```

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

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

```
SELECT Ename,
DECODE(Commision,0,'No Commission',Commision) as "Commision"
FROM employee;
```

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

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

```
SELECT Ename, d.Dname, d.Dno
FROM employee e , Department d
WHERE e.Dno=d.Dno;
```

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

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

```
SELECT distinct Job_type
FROM employee
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 e , Department d
WHERE e.Dno=d.Dno AND
e.Commision>0.00;
```

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

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

```
SELECT Ename, Dname
FROM employee e , Department 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 e , Department d
WHERE e.Dno=d.Dno AND
d.Location='Dallas';
```

ENAME	JOB_TYPE	DNO	DNAME
Jones	Manager	20	Research
Smith	Clerk	20	Research
Ford	Analyst	20	Research
Adams	Clerk	20	Research
Scott	Analyst	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 e , employee m
WHERE e.Manager=m.Eno;
```

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

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 e LEFT OUTER JOIN employee m
ON e.Manager=m.Eno;
```

ENAME	ENO	Manager's Name	Manager's Eno
Martin	765	King	783
Jones	756	King	783
Ward	752	Blake	769
Allan	749	Blake	769
Smith	736	James	790
Miller	793	Scott	788
Ford	792	Jones	756
James	790	Blake	769
Adams	787	Clark	778
Turner	784	Blake	769
King	783	-	-
Scott	788	Jones	756
Clark	778	King	783
Blake	769	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
WHERE Salary > (SELECT AVG(Salary) FROM employee)
AND Dno IN(
SELECT Dno FROM employee
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 e
WHERE (Dno,Salary) IN
(SELECT Dno , Salary FROM  employee WHERE Commision>0);
```

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

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
WHERE hire_date> (SELECT Hire_Date FROM employee where Ename='Blake');
```

ENAME	HIRE_DATE
Miller	23-JAN-82
Ford	03-DEC-81
James	03-DEC-81
Adams	12-JAN-83
Turner	08-SEP-81
King	17-NOV-81
Scott	09-DEC-82
Clark	09-JUN-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 e , employee m
WHERE e.Manager=m.Eno
AND ( e.Hire_Date < m.Hire_date );
```

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

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

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

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

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;
```

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
GROUP BY Job_Type;
```

JOB_TYPE	MAX(SALARY)	MIN(SALARY)	SUM(SALARY)	AVG(SALARY)
Manager	2900	2300	8070	2690
Clerk	1300	950	4400	1100
Analyst	2850	2600	5450	2725
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
GROUP BY Job_Type;
```

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

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

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

COUNT(DISTINCTMANAGER)
6

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

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

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

MANAGER	MIN(SALARY)
778	1150
788	1300
790	1000
756	2600
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 e , department 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
WHERE Dno= (SELECT Dno FROM employee where Ename='Blake' );
```

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

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

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

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

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

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

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

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

ENAME	SALARY
Martin	1250
Jones	2300
Clark	2900
Blake	2870

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

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

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

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

```
SELECT Ename
FROM employee e
WHERE Job_type='Manager' AND
Salary > ( SELECT AVG(Salary) FROM employee WHERE Dno=e.Dno );
```

ENAME
Jones
Blake