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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](javascript:ret_Column('SUMIT.EMPLOYEE_STATE');) | [ENO](javascript:ret_Column('ENO');) | Char | 3 | - | - | 1 | - | NULL | - |
|  | [ENAME](javascript:ret_Column('ENAME');) | Varchar2 | 50 | - | - | - | - | NULL | - |
|  | [JOB\_TYPE](javascript:ret_Column('JOB_TYPE');) | Varchar2 | 50 | - | - | - | - | NULL | - |
|  | [MANAGER](javascript:ret_Column('MANAGER');) | Char | 3 | - | - | - | nullable | NULL | - |
|  | [HIRE\_DATE](javascript:ret_Column('HIRE_DATE');) | Date | 7 | - | - | - | - | NULL | - |
|  | [DNO](javascript:ret_Column('DNO');) | Number | - | - | - | - | nullable | NULL | - |
|  | [COMMISSION](javascript:ret_Column('COMMISSION');) | Number | - | 10 | 2 | - | nullable | NULL | - |
|  | [SALARY](javascript:ret_Column('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](javascript:ret_Column('SUMIT.DEPARTMENT_STATE');) | [DNO](javascript:ret_Column('DNO');) | Number | - | - | - | 1 | - | NULL | - |
|  | [DNAME](javascript:ret_Column('DNAME');) | Varchar2 | 50 | - | - | - | nullable | NULL | - |
|  | [LOCATION](javascript:ret_Column('LOCATION');) | Varchar2 | 50 | - | - | - | nullable | 'New Delhi' | - |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | |  |  | 1 - 3 |  |  | | | | | | | | | | |

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 |