IIEST, Shibpur
आई आई ई एस टि, शिवपुर
Erstwhile B E College (Estd 1856)

उत्तिष्ठत जाग्रत प्राप्य वरान् निबोधत
INDIAN INSTITUTE OF ENGINEERING SCIENCE AND TECHNOLOGY, SHIBPUR
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Assignment 2

Database Management System

Submission Date: 21.08.2022

GitHub Link: DBMS/Assignment 2 at main · iamastik/DBMS (github.com)

QN 1. CREATE A EMP TABLE .

```sql
-- create database MK_2Assignment;
use MK_2assignment;


CREATE TABLE Emp(
    EmpNo int primary key,
    Ename varchar(255),
    Job varchar(255),
    Mgr int,
    hiredate date,
    sal int,
    comm int,
    deptNo int
    );
```

```sql
SELECT * FROM mk_2assignment.emp;
Insert into emp(EmpNo,Ename,Job,Mgr,hiredate,sal,comm,deptNo) values
    (7369,'Smith','Clerk',7902,'1980-12-17',800,0 ,20),
    (7499,'Allen','Salesman',7698,'1981-02-20',1600,300 ,30),
    (7521,'Ward','Salesman',7698,'1981-12-22',1250,500,30),deptdept
    (7566,'Jones','Manager',7839,'1981-04-02',2975,0 ,20),
    (7654,'Martin','Salesman',7698,'1981-09-28',1250,1400 ,30),
    (7698,'Blake','Manager',7839,'1981-05-01',2850,0 ,30),
    (7782,'Clark','Manager',7839,'1980-06-09',2450,0 ,30),
    (7788,'Scott','Analyst',7566,'1982-12-09',3000,0 ,20),
    (7839,'King','President',0,'1981-11-17',5000,0 ,10),
    (7844,'Turner','Salesman',7698,'1980-09-08',1500,0 ,30),
    (7876,'Adams','Clerk',7788,'1983-01-12',1100,0 ,20),
    (7900,'James','Clerk',7698,'1981-12-03',950,0 ,30),
    (7902,'Ford','Analyst',7566,'1981-12-04',3000,0 ,20),
    (7934,'Miller','Clerk',7782,'1982-01-23',1300,0 ,10)
```

QN 2. Create a DEPT Table

```sql
use MK_2assignment;


CREATE TABLE Dept(
    DeptNo int primary key,
    Dname varchar(255),
    Loc varchar(255)
    );
```

```sql
select * from mk_2assignment.dept;

insert into dept(DeptNo,Dname,Loc) values
    (10,'Accounting','New York'),
    (20,'Research','Dallas'),
    (30,'Sales','Chicago'),
    (40,'Operations','Boston')
```

Output EMP Table:

EmpNo	Ename	Job	Mgr	hiredate	sal	comm	deptNo
7369	Smith	Clerk	7902	1980-12-17	800	0	20
7499	Allen	Salesman	7698	1981-02-20	1600	300	30
7521	Ward	Salesman	7698	1981-12-22	1250	500	30
7566	Jones	Manager	7839	1981-04-02	2975	0	20
7654	Martin	Salesman	7698	1981-09-28	1250	1400	30
7698	Blake	Manager	7839	1981-05-01	2850	0	30
7782	Clark	Manager	7839	1980-06-09	2450	0	30
7788	Scott	Analyst	7566	1982-12-09	3000	0	20
7839	King	President	0	1981-11-17	5000	0	10
7844	Turner	Salesman	7698	1980-09-08	1500	0	30
7876	Adams	Clerk	7788	1983-01-12	1100	0	20
7900	James	Clerk	7698	1981-12-03	950	0	30
7902	Ford	Analyst	7566	1981-12-04	3000	0	20
7934	Miller	Clerk	7782	1982-01-23	1300	0	10
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

DEPT Table:

DeptNo	Dname	Loc
10	Accounting	New York
20	Research	Dallas
30	Sales	Chicago
40	Operations	Boston
NULL	NULL	NULL

1. List the names of analysts and salesman.

```
use mk_2assignment;
select Ename
From emp
where Job='Salesman' or Job='Analyst'
```

Ename
Allen
Ward
Martin
Scott
Turner
Ford

2. List the details of employees who have joined before 30 SEP 81 .

```sql
use mk_2assignment;
select *
from emp
where hiredate<'1981-09-30'
```

EmpNo	Ename	Job	Mgr	hiredate	sal	comm	deptNo
7369	Smith	Clerk	7902	1980-12-17	800	0	20
7499	Allen	Salesman	7698	1981-02-20	1600	300	30
7566	Jones	Manager	7839	1981-04-02	2975	0	20
7654	Martin	Salesman	7698	1981-09-28	1250	1400	30
7698	Blake	Manager	7839	1981-05-01	2850	0	30
7782	Clark	Manager	7839	1980-06-09	2450	0	30
7844	Turner	Salesman	7698	1980-09-08	1500	0	30
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

3. List names of employees who are not manager.

- `use mk_2assignment;`

- ```
select Ename
from emp
where Job !='Manager'
```

| Ename |
| --- |
| Smith |
| Allen |
| Ward |
| Martin |
| Scott |
| King |
| Turner |
| Adams |
| James |
| Ford |
| Miller |

4. List names of employees whose employment numbers are 7367, 7521, 7839, 7934, 7788

```
use mk_2assignment;

select Ename
from emp
where EmpNo=7369 or EmpNo = 7521 or EmpNo = 7839 or EmpNo =7934 or EmpNo = 7788
```

Ename
Smith
Ward
Scott
King
Miller

5. List the name of employees who have joined between 30 June and 31 Dec , 1981

```
use mk_2assignment;

select Ename
from emp
where deptNo != 30 and deptNo!= 40 and deptNo != 10
```

	Ename
▶	Smith
	Jones
	Scott
	Adams
	Ford

6. **List of employees who are not belonging not belonging to 30, 40 or 10.**

```
use mk_2assignment;

select Ename
from emp
where deptNo != 30 and deptNo!= 40 and deptNo != 10
```

	Ename
▶	Smith
	Jones
	Scott
	Adams
	Ford

7. List the different designation of the company.

- ```
  use mk_2assignment;
  ```

- ```
  select distinct Job from emp
  ```

Job
Clerk
Salesman
Manager
Analyst
President

8. List the name of employees who are not eligible for commission.

- ```
  use mk_2assignment;
  ```

- ```
  select Ename from emp
  where comm=0
  ```

Ename
Smith
Jones
Blake
Clark
Scott
King
Turner
Adams
James
Ford
Miller

9. List the name and designation of the employees who does not report to anybody.

```
use mk_2assignment;

select Ename from emp
where mgr=0
```

Ename
King

10. List the name of employee who does not assigned to any department.

```
1
2
3 •  use mk_2assignment;
4 •  select Ename
5    from emp
6    where deptNo=0
```

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Ename

11. List the number of employees who are eligible for commission.

```
use mk_2assignment;

select Ename
from emp
where comm !=0
```

Ename
Allen
Ward
Martin

12. List the name of employees whose name either start or end with 's'.

```
use mk_2assignment;

select Ename
from emp
Where Ename like '%s' or Ename Like 's%';
```

Ename
Smith
Jones
Scott
Adams
James

13. List the name of the employees whose second character of his name is "i' .

```
use mk_2assignment;

select Ename
from emp
Where Ename like '_i%';
```

Ename
King
Miller

14. List the number of employees working with the company.

```
use mk_2assignment;

select Ename,dept.Dname
from emp
join  dept on dept.DeptNo = emp.deptNo
```

Ename	Dname
Smith	Research
Allen	Sales
Ward	Sales
Jones	Research
Martin	Sales
Blake	Sales
Clark	Sales
Scott	Research
King	Accounting
Turner	Sales
Adams	Research
James	Sales
Ford	Research
Miller	Accounting

15. List the number of designation available in the EMP table.

```sql
use mk_2assignment;
select distinct Job from emp
```

Job
Clerk
Salesman
Manager
Analyst
President

16. List the total salary paid by the Employees.

```sql
use mk_2assignment;

select Ename,sal,comm ,sal+comm as 'Total Salary'
from emp
```

Ename	sal	comm	Total Salary
Smith	800	0	800
Allen	1600	300	1900
Ward	1250	500	1750
Jones	2975	0	2975
Martin	1250	1400	2650
Blake	2850	0	2850
Clark	2450	0	2450
Scott	3000	0	3000
King	5000	0	5000
Turner	1500	0	1500
Adams	1100	0	1100
James	950	0	950
Ford	3000	0	3000
Miller	1300	0	1300

17. List the maximum, minimum and average salary of the company.

```
use mk_2assignment;

select max(sal) as 'Max Salary' , min(sal) as 'Minimum Salary',avg(sal) AS 'Average Salary'
from emp
```

Max Salary	Minimum Salary	Average Salary
5000	800	2073.2143

18. List the maximum salary paid by the salesman.

```
use mk_2assignment;

select max(sal) as 'Max Salary For a sales man'
from emp
where Job='Salesman'
```

Max Salary For a sales man
1600

Thank You

Remarks: