National Institute of Technology, Agartala

Assignment No: 3
Section : B

Subject: DBMS Lab

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Semester: 5th (B. Tech, CSE)

Objective:

To Study about NULL operator and Performing Calculation on runtime Query

Equipment:

MySQL workbench, MySQL server

Queries & Outputs

Q. Create a Database called EMPLOYEE_Your Roll Number.

```
create database employee_19UCS043;
use employee_19UCS043;

create table Emp
(
EMPNO int primary key,
ENAME varchar(10),
JOB varchar(9),
MGR int,
HIREDATE date,
SAL int,
COMM int,
DEPTNO int,
AGE int,
ESAL int
);
insert into Emp
(`EMPNO`, `ENAME`, `JOB`, `MGR`, `HIREDATE`, `SAL`, `COMM`, `DEPTNO`, `AGE`, `ESAL`)
values
(7369, 'SMITH', 'CLERK', 7902, '1980-12-17', 800, 0, 20, 25, 0),
(7499, 'ALLEN', 'SALESMAN', 7698, '1981-02-20', 1600, 300, 30, 25, 0),
(7521, 'WARD', 'SALESMAN', 7698, '1981-02-22', 1250, 500, 30, 25, 0),
(7566, 'JONES', 'SALESMAN', 7698, '1981-04-02', 2975, 500, 20, 25, 0),
(7698, 'KE', 'MANAGER', 7839, '1981-05-01', 1600, 300, 30, 25, 0);
```

```sql
create database employee_19UCS043;
use employee_19UCS043;

create table Emp
(
EMPNO int primary key,
ENAME varchar(10),
JOB varchar(9),
MGR int,
HIREDATE date,
SAL int,
COMM int,
DEPTNO int,
AGE int,
ESAL int
);

insert into Emp
(`EMPNO`, `ENAME`, `JOB`, `MGR`, `HIREDATE`, `SAL`, `COMM`, `DEPTNO`, `AGE`,
values
(7369, 'SMITH', 'CLERK', 7902, '1980-12-17', 800, 0, 20, 25, 0),
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(7566, 'JONES', 'SALESMAN', 7698, '1981-04-02', 2975, 500, 20, 25, 0),
(7698, 'KE', 'MANAGER', 7839, '1981-05-01', 1600, 300, 30, 25, 0);

select * from Emp;
```

#	EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	AGE	ESAL
1	7369	SMITH	CLERK	7902	1980-12-17	800	0	20	25	0
2	7499	ALLEN	SALESMAN	7698	1981-02-20	1600	300	30	25	0
3	7521	WARD	SALESMAN	7698	1981-02-22	1250	500	30	25	0
4	7566	JONES	SALESMAN	7698	1981-04-02	2975	500	20	25	0
5	7698	KE	MANAGER	7839	1981-05-01	1600	300	30	25	0
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

1) List all employee names and their salaries, whose salary lies between 1500/- and 3500/- both inclusive.

select * from Emp where SAL between 1500 and 3500;

```sql
# question - 1
select * from Emp where SAL between 1500 and 3500;
```

#	EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	AGE	ESAL
1	7499	ALLEN	SALESMAN	7698	1981-02-20	1600	300	30	25	0
2	7566	JONES	SALESMAN	7698	1981-04-02	2975	500	20	25	0
3	7698	KE	MANAGER	7839	1981-05-01	1600	300	30	25	0
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

2) List all employee names and their and their manager whose manager is 7902 or 7566 or 7789.

select * from Emp where MGR in(7902, 7566, 7789);

```
32    # question - 2
33 •  select * from Emp where MGR in(7902, 7566, 7789);
34
```

Filter Rows: Edit: Export/Import: Wra

#	EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	AGE	ESAL
	7369	SMITH	CLERK	7902	1980-12-17	800	0	20	25	0
	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

3) List all employees, which starts with either J or T.

select * from Emp where ENAME like'J%' or 'T%' ;

```
35    # question - 3
36 •  select * from Emp where ENAME like'J%' or 'T%' ;
37
```

Filter Rows: Edit: Export/Import: Wrap Cell C

#	EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	AGE	ESAL
	7566	JONES	SALESMAN	7698	1981-04-02	2975	500	20	25	20000
	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

4) List all employee names and jobs, whose job title includes M or P.

select * from Emp where JOB like '%M%' or '%P%';

```
38    # question - 4
39 •  select * from Emp where JOB like '%M%' or '%P%';
```

Filter Rows: Edit: Export/Import: Wrap Cell

#	EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	AGE	ESAL
1	7499	ALLEN	SALESMAN	7698	1981-02-20	1600	300	30	25	0
2	7521	WARD	SALESMAN	7698	1981-02-22	1250	500	30	25	0
3	7566	JONES	SALESMAN	7698	1981-04-02	2975	500	20	25	0
4	7698	KE	MANAGER	7839	1981-05-01	1600	300	30	25	0
	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

5) List all jobs available in employee table.

select distinct(JOB) AS available_jobs from Emp;

```
41    # question - 5
42 •  select distinct(JOB) AS available_jobs from Emp;
43
```

Filter Rows: Export: Wrap Cell Content:

#	available_jobs
1	CLERK
2	SALESMAN
3	MANAGER

6) List all employees who belongs to the department 10 or 20.

select * from Emp where DEPTNO in(10,20);

```
44    # question - 6
45 •  select * from Emp where DEPTNO in(10,20);
46
```

Filter Rows: Edit: Export/Import: Wrap Cell C

#	EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	AGE	ESAL
1	7369	SMITH	CLERK	7902	1980-12-17	800	0	20	25	0
2	7566	JONES	SALESMAN	7698	1981-04-02	2975	500	20	25	0
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

7) List all employee names, salary and 15% rise in salary.

select ENAME, SAL, COMM from Emp ;

```
47    # question - 7
48 •  select ENAME, SAL, COMM from Emp ;
49
```

Filter Rows: Export: Wrap Cell Content:

#	ENAME	SAL	COMM
1	SMITH	800	0
2	ALLEN	1600	300
3	WARD	1250	500
4	JONES	2975	500

8) List minimum, maximum, average salaries of employee.

select min(SAL) as Minimum, max(SAL) as Maximum, avg(SAL) as Average from Emp;

```
50    # question - 8
51 •  select min(SAL) as Minimum, max(SAL) as Maximum, avg(SAL) as Average from Emp;
52
```

Filter Rows: Export: Wrap Cell Content:

#	Minimum	Maximum	Average
1	800	2975	1645.0000

9) Find how many job titles are available in employee table.

select count(distinct JOB) as total_Jobs from Emp;

```
53    # question - 9
54 •  select count(distinct JOB ) as total_Jobs from Emp;
```

Filter Rows: Export: Wrap Cell Content:

#	total_Jobs
1	3

10) Find how much amount the company is spending towards salaries.

select sum(SAL) as total_salaries from Emp;

```
56    # question - 10
57 •  select sum(SAL) as total_salaries from Emp;
58
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

#	total_salaries
1	8225

11) Display name of the dept. with deptno 20.

select JOB, DEPTNO from Emp where DEPTNO = 20;

```
59    # question - 11
60 •  select JOB, DEPTNO from Emp where DEPTNO = 20;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

#	JOB	DEPTNO
1	CLERK	20
2	SALESMAN	20

12) List ename whose commission is NULL.

select ENAME from Emp where COMM is null;

```
62    # question - 12
63 •  select ENAME from Emp where COMM is null;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

#	ENAME

13) Find no.of dept in employee table.

select count(DEPTNO) as total_departments from Emp;

```
65    # question - 13
66 •  select count(DEPTNO) as total_departments from Emp;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

#	total_departments
1	5

14) List ename whose manager is not NULL.

select ENAME from Emp where MGR is not null;

```
68    # question - 14
69 •  select ENAME from Emp where MGR is not null;
```

15) Change the Age to 30 whose job is MANAGER.

```
update Emp
set
        AGE = 30
where JOB='MANAGER';
```

```
71    # question - 15
72 •  update Emp
73    set
74        AGE = 30
75    where JOB='MANAGER';
```

16) Modify ESAL to 20000/- whose MGR is 7698.

```
update Emp
set
        ESAL = 20000
where MGR=7698;
```

```
77    # question - 16
78 •  update Emp
79    set
80        ESAL = 20000
81    where MGR=7698;
```

17) Delete the record whose HIREDATE is 01-MAY-81.

delete from Emp where HIREDATE = '1981-05-01';

```
83    # question - 17
84 •  delete from Emp where HIREDATE = '1981-05-01';
85
```

Conclusion:

Studied and implemented about NULL operator and Performing Calculation on runtime Query