ASSIGNMENT 4

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Semester : 4th

Course : B.Sc (H) Computer Science

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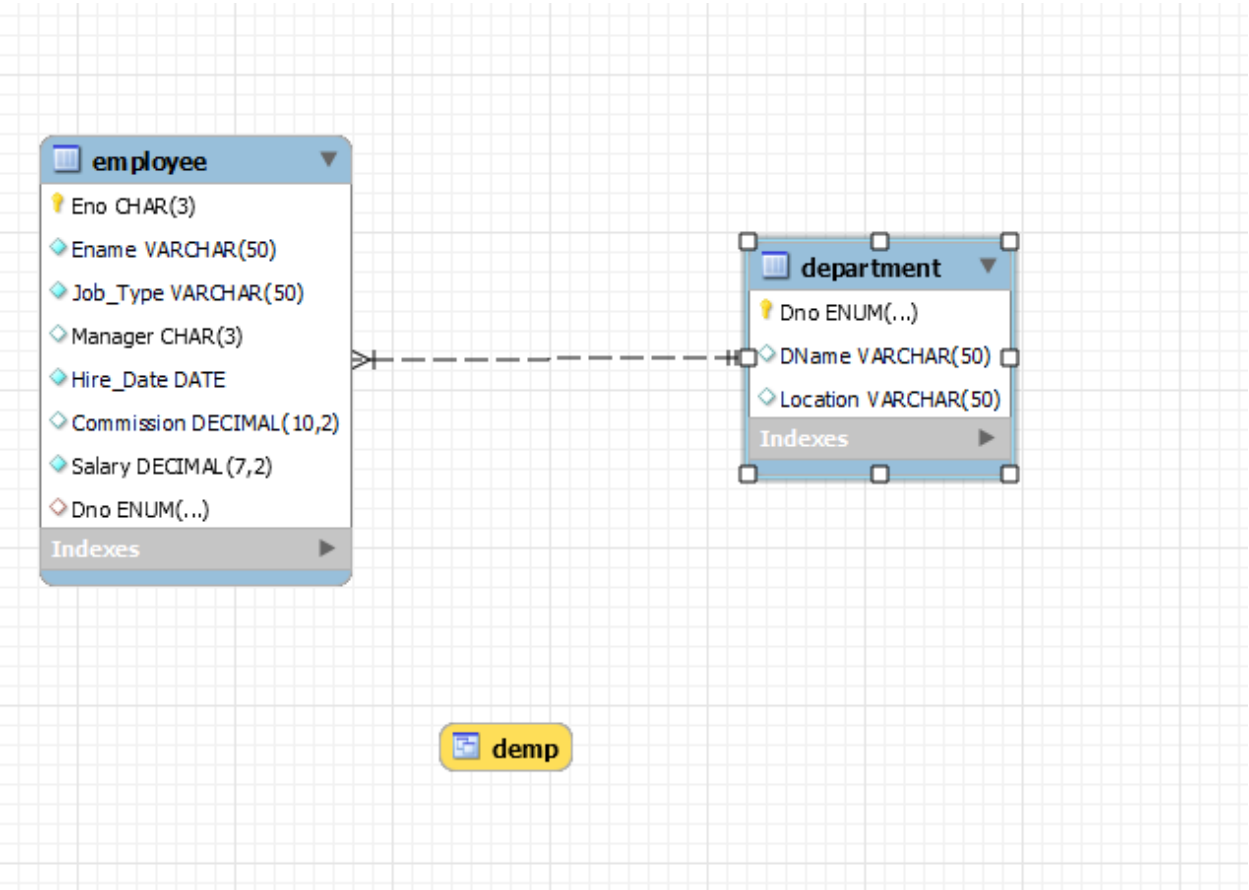

/* DDL COMMANDS */

create database EMP_DEPT;

use EMP_DEPT;

```
create table Department(
Dno enum('10','20','30','40','50') NOT NULL PRIMARY KEY,
DName varchar(50) DEFAULT NULL,
Location varchar(50) Default "New Delhi"
);


/*Foreign key references Employee(Eno)*/


create table Employee (
Eno char(3) NOT NULL primary key,
Ename Varchar(50) not null,
Job_Type varchar(50) not null,
Manager char(3) ,
Hire_Date date Not Null,
Commission Decimal(10,2),
Salary Decimal(7,2) Not Null,
Check (5000>Salary and Salary>1000),
Dno enum('10','20','30','40','50'),
foreign key (Dno) references Department(Dno)
);
```

QUERIES

/* Question 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  |
+-----+--------+-----------+------------+
| 736 | Ward   | Clerk     | 1980-12-17 |
| 749 | Allan  | Sales_Man | 1981-02-20 |
| 752 | Ward   | Sales_Man | 1981-02-22 |
| 756 | Ward   | Manager   | 1981-04-02 |
| 765 | Martin | Sales_Man | 1981-04-22 |
| 769 | Blake  | Manager   | 1981-05-01 |
| 778 | Clark  | Manager   | 1981-06-09 |
| 783 | King   | President | 1981-11-17 |
| 784 | Turner | Sales_Man | 1981-09-08 |
| 787 | Adams  | Clerk     | 1983-01-12 |
| 788 | Scott  | Analyst   | 1982-12-09 |
| 790 | James  | Clerk     | 1981-12-03 |
| 792 | Ford   | Analyst   | 1981-12-03 |
| 793 | Clark  | Clerk     | 1982-01-23 |
| 794 | Drek   | Clerk     | 1982-07-04 |
+-----+--------+-----------+------------+
15 rows in set (0.01 sec)
```

/* Question 2

Query to display Unique Jobs from the Employee Table. */

select distinct job_type from employee;

```
+-----------+
| job_type  |
+-----------+
| Clerk     |
| Sales_Man |
| Manager   |
| President |
| Analyst   |
+-----------+
5 rows in set (0.00 sec)
```

/* Question 3

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

*/

select concat_ws(",",ename,job_type) from employee;

```
+------------------------------+
| concat_ws(",",ename,job_type) |
+------------------------------+
| Ward,Clerk                   |
| Allan,Sales_Man              |
| Ward,Sales_Man               |
| Ward,Manager                 |
| Martin,Sales_Man             |
| Blake,Manager                |
| Clark,Manager                |
| King,President               |
| Turner,Sales_Man             |
| Adams,Clerk                  |
| Scott,Analyst                |
| James,Clerk                  |
| Ford,Analyst                 |
| Clark,Clerk                  |
| Drek,Clerk                   |
+------------------------------+
15 rows in set (0.00 sec)
```

/* Question 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 concat_ws(" , ", eno, ename,job_type , manager, hire_date, commission,salary,dno) THE_OUTPUT from employee;

```
+-----------------------------------------------------------------------+
| THE_OUTPUT                                                            |
+-----------------------------------------------------------------------+
| 736 , Ward , Clerk , 790 , 1980-12-17 , 0.00 , 1200.00 , 20          |
| 749 , Allan , Sales_Man , 769 , 1981-02-20 , 300.00 , 2000.00 , 30   |
| 752 , Ward , Sales_Man , 769 , 1981-02-22 , 500.00 , 1300.00 , 30    |
| 756 , Ward , Manager , 783 , 1981-04-02 , 0.00 , 2300.00 , 20        |
| 765 , Martin , Sales_Man , 198 , 1981-04-22 , 1400.00 , 1250.00 , 30 |
| 769 , Blake , Manager , 783 , 1981-05-01 , 0.00 , 2870.00 , 30       |
| 778 , Clark , Manager , 783 , 1981-06-09 , 0.00 , 2900.00 , 10       |
| 783 , King , President , 1981-11-17 , 0.00 , 2950.00 , 10            |
| 784 , Turner , Sales_Man , 769 , 1981-09-08 , 0.00 , 1450.00 , 30    |
| 787 , Adams , Clerk , 778 , 1983-01-12 , 0.00 , 1150.00 , 20         |
| 788 , Scott , Analyst , 756 , 1982-12-09 , 0.00 , 2850.00 , 40       |
| 790 , James , Clerk , 769 , 1981-12-03 , 0.00 , 1100.00 , 30         |
| 792 , Ford , Analyst , 756 , 1981-12-03 , 0.00 , 2600.00 , 20        |
| 793 , Clark , Clerk , 788 , 1982-01-23 , 0.00 , 1300.00 , 40         |
| 794 , Drek , Clerk , 778 , 1982-07-04 , 1500.00 , 1150.00 , 20       |
+-----------------------------------------------------------------------+
15 rows in set (0.00 sec)
```

/* Question 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  |
+-------+---------+
| Blake | 2870.00 |
| Clark | 2900.00 |
| King  | 2950.00 |
+-------+---------+
3 rows in set (0.00 sec)
```

/*Question 6

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

*/

```
mysql>   select ename,dno from employee where eno=790;
+-------+------+
| ename | dno  |
+-------+------+
| James | 30   |
+-------+------+
1 row in set (0.00 sec)
```

/*Question 7

Query to display Employee Name & Salary for all employees whose salary is not in

the range of $1500 and $2850.

***/**

```
mysql> select ename,salary from employee where salary not between 1500 and 2850;
+--------+---------+
| ename  | salary  |
+--------+---------+
| Ward   | 1200.00 |
| Ward   | 1300.00 |
| Martin | 1250.00 |
| Blake  | 2870.00 |
| Clark  | 2900.00 |
| King   | 2950.00 |
| Turner | 1450.00 |
| Adams  | 1150.00 |
| James  | 1100.00 |
| Clark  | 1300.00 |
| Drek   | 1150.00 |
+--------+---------+
11 rows in set (0.00 sec)
```

/*Question 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.

***/**

```
mysql> select ename,job_type,hire_date from employee where hire_date between "1981-02-20" and "1981-05-01" order by hire_date;
+--------+-----------+------------+
| ename  | job_type  | hire_date  |
+--------+-----------+------------+
| Allan  | Sales_Man | 1981-02-20 |
| Ward   | Sales_Man | 1981-02-22 |
| Ward   | Manager   | 1981-04-02 |
| Martin | Sales_Man | 1981-04-22 |
| Blake  | Manager   | 1981-05-01 |
+--------+-----------+------------+
5 rows in set (0.00 sec)
```

/* Question 9

Query to display Employee Name & Department No. of all the employees in Dept 10 and Dept 30 in

the alphabetical order by name.

***/**

```
mysql> select ename,dno from employee where dno in ('10','30') order by ename;
+--------+------+
| ename  | dno  |
+--------+------+
| Allan  | 30   |
| Blake  | 30   |
| Clark  | 10   |
| James  | 30   |
| King   | 10   |
| Martin | 30   |
| Turner | 30   |
| Ward   | 30   |
+--------+------+
8 rows in set (0.00 sec)
```

/* Question 10

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

***/**

```
mysql> select ename,salary from employee where dno in ('10','30') and salary>1500;
+-------+---------+
| ename | salary  |
+-------+---------+
| Clark | 2900.00 |
| King  | 2950.00 |
| Allan | 2000.00 |
| Blake | 2870.00 |
+-------+---------+
4 rows in set (0.00 sec)
```

/* Question 11

Query to display Name & Hire Date of every Employee who was hired after 1981.

***/**

select ename,hire_date from employee where year(hire_date)>1981;

```
+-------+------------+
| ename | hire_date  |
+-------+------------+
| Adams | 1983-01-12 |
| Scott | 1982-12-09 |
| Clark | 1982-01-23 |
| Drek  | 1982-07-04 |
+-------+------------+
4 rows in set (0.00 sec)
```

/* Question 12

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

***/**

select * from employee where Manager is NULL;

```
+-----+-------+-----------+---------+------------+------------+---------+------+
| Eno | Ename | Job_Type  | Manager | Hire_Date  | Commission | Salary  | Dno  |
+-----+-------+-----------+---------+------------+------------+---------+------+
| 783 | King  | President | NULL    | 1981-11-17 |       0.00 | 2950.00 | 10   |
+-----+-------+-----------+---------+------------+------------+---------+------+
1 row in set (0.00 sec)
```

/* Question 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 where commission!=0 order by salary desc,commission desc;

```
+--------+---------+------------+
| ename  | salary  | commission |
+--------+---------+------------+
| Allan  | 2000.00 |     300.00 |
| Ward   | 1300.00 |     500.00 |
| Martin | 1250.00 |    1400.00 |
| Drek   | 1150.00 |    1500.00 |
+--------+---------+------------+
4 rows in set (0.00 sec)
```

/* Question 14

Query to display Name of all the employees where the third letter of their name is 'A' and job type is

manager.

***/**

select ename from employee where ename like "__A%" and job_type="Manager";

```
+-------+
| ename |
+-------+
| Blake |
| Clark |
+-------+
2 rows in set (0.00 sec)
```

/* Question 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 where ename like "%a%a%" or ename like "%r%r%" and dno="30" and Manager=778;

```
+-------+
| ename |
+-------+
| Allan |
| Adams |
+-------+
2 rows in set (0.00 sec)
```

/* Question 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="Clerical" or job_type="Analyst" and salary not in (1000,3000,5000);

```
+-------+----------+---------+
| ename | job_type | salary  |
+-------+----------+---------+
| Scott | Analyst  | 2850.00 |
| Ford  | Analyst  | 2600.00 |
+-------+----------+---------+
2 rows in set (0.00 sec)
```

/* Question 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 where commission>(1.05)*salary;

```
+--------+---------+------------+
| ename  | salary  | commission |
+--------+---------+------------+
| Martin | 1250.00 |    1400.00 |
| Drek   | 1150.00 |    1500.00 |
+--------+---------+------------+
2 rows in set (0.00 sec)
```

/* Question 18

Query to display the Current Date and the last date on which any employee joined.

***/**

select curdate , max(hire_Date) from employee;

```
+------------+----------------+
| curdate()  | max(hire_Date) |
+------------+----------------+
| 2023-04-06 | 1983-01-12     |
+------------+----------------+
1 row in set (0.27 sec)
```

/* Question 19

Query to display Employee No., Name, Salary and the Salary increased by 15 % expressed as a

absolute whole number.

***/**

select eno,ename,salary , FORMAT((salary*1.15),0) "115% SALARY" from employee;

eno	ename	salary	115% SALARY
736	Ward	1200.00	1,380
749	Allan	2000.00	2,300
752	Ward	1300.00	1,495
756	Ward	2300.00	2,645
765	Martin	1250.00	1,438
769	Blake	2870.00	3,301
778	Clark	2900.00	3,335
783	King	2950.00	3,393
784	Turner	1450.00	1,668
787	Adams	1150.00	1,323
788	Scott	2850.00	3,278
790	James	1100.00	1,265
792	Ford	2600.00	2,990
793	Clark	1300.00	1,495
794	Drek	1150.00	1,323

15 rows in set (0.00 sec)

/* QUESTION 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,

CASE

        WHEN dayname(hire_date+ INTERVAL 6 MONTH)='MONDAY' THEN hire_date+ INTERVAL 6 MONTH

        WHEN dayname(hire_date+ INTERVAL 6 MONTH)='TUESDAY'THEN DATE_ADD(hire_date+ INTERVAL 6 MONTH,interval 6 DAY)

        WHEN dayname(hire_date+ INTERVAL 6 MONTH)='WEDNESDAY' THEN  DATE_ADD(hire_date+ INTERVAL 6 MONTH,interval 5 DAY)

        WHEN dayname(hire_date+ INTERVAL 6 MONTH)='THURSDAY' THEN  DATE_ADD(hire_date+ INTERVAL 6 MONTH,interval 4 DAY)

        WHEN dayname(hire_date+ INTERVAL 6 MONTH)='FRIDAY' THEN  DATE_ADD(hire_date+ INTERVAL 6 MONTH,interval 3 DAY)

        WHEN dayname(hire_date+ INTERVAL 6 MONTH)='SATURDAY' THEN DATE_ADD(hire_date+ INTERVAL 6 MONTH,interval 2 DAY)

        WHEN dayname(hire_date+ INTERVAL 6 MONTH)='SUNDAY' THEN  DATE_ADD(hire_date+ INTERVAL 6 MONTH,interval 1 DAY)

END

AS SALARY_REVIEW_DATE
```

from employee;

hire_date	SALARY_REVIEW_DATE
1980-12-17	1981-06-22
1981-02-20	1981-08-24
1981-02-22	1981-08-24
1981-04-02	1981-10-05
1981-04-22	1981-10-26
1981-05-01	1981-11-02
1981-06-09	1981-12-14
1981-11-17	1982-05-17
1981-09-08	1982-03-08
1983-01-12	1983-07-18
1982-12-09	1983-06-13
1981-12-03	1982-06-07
1981-12-03	1982-06-07
1982-01-23	1982-07-26
1982-07-04	1983-01-10

15 rows in set (0.00 sec)

/*Question 21

Query to display the employees that earns a salary that is higher than the salary of any of the clerks along with the difference in salary.

***/**

Select ename,salary from employee where salary>(select max(salary) from employee where job_type="Clerk");

```
mysql> Select ename,salary from employee where salary>(select max(salary) from employee where job_type="Clerk");
+--------+---------+
| ename  | salary  |
+--------+---------+
| Allan  | 2000.00 |
| Ward   | 2300.00 |
| Blake  | 2870.00 |
| Clark  | 2900.00 |
| King   | 2950.00 |
| Turner | 1450.00 |
| Scott  | 2850.00 |
| Ford   | 2600.00 |
+--------+---------+
8 rows in set (0.00 sec)
```

/* Question 22

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

***/**

select eno,(year(curdate())-year(hire_date))*12+(month(curdate())-month(hire_date)) Month_Diff from employee;

```
+-----+------------+
| eno | Month_Diff |
+-----+------------+
| 736 |        508 |
| 749 |        506 |
| 752 |        506 |
| 756 |        504 |
| 765 |        504 |
| 769 |        503 |
| 778 |        502 |
| 783 |        497 |
| 784 |        499 |
| 787 |        483 |
| 788 |        484 |
| 790 |        496 |
| 792 |        496 |
| 793 |        495 |
| 794 |        489 |
+-----+------------+
15 rows in set (0.00 sec)
```

/* Question 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 concat(ename," earns ",salary," monthly but wants ",3*salary) "Dream Salary" from employee;

```
mysql> select concat(ename," earns ",salary," monthly but wants ",3*salary) "Dream Salary" from employee;
+---------------------------------------------+
| Dream Salary                                |
+---------------------------------------------+
| Ward earns 1200.00 monthly but wants 3600.00   |
| Allan earns 2000.00 monthly but wants 6000.00  |
| Ward earns 1300.00 monthly but wants 3900.00   |
| Ward earns 2300.00 monthly but wants 6900.00   |
| Martin earns 1250.00 monthly but wants 3750.00 |
| Blake earns 2870.00 monthly but wants 8610.00  |
| Clark earns 2900.00 monthly but wants 8700.00  |
| King earns 2950.00 monthly but wants 8850.00   |
| Turner earns 1450.00 monthly but wants 4350.00 |
| Adams earns 1150.00 monthly but wants 3450.00  |
| Scott earns 2850.00 monthly but wants 8550.00  |
| James earns 1100.00 monthly but wants 3300.00  |
| Ford earns 2600.00 monthly but wants 7800.00   |
| Clark earns 1300.00 monthly but wants 3900.00  |
| Drek earns 1150.00 monthly but wants 3450.00   |
+---------------------------------------------+
15 rows in set (0.01 sec)
```

/* Question 24

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

***/**

select lpad(salary,15,"$") from employee;

```
+--------------------+
| lpad(salary,15,"$") |
+--------------------+
| $$$$$$$1200.00     |
| $$$$$$$2000.00     |
| $$$$$$$1300.00     |
| $$$$$$$2300.00     |
| $$$$$$$1250.00     |
| $$$$$$$2870.00     |
| $$$$$$$2900.00     |
| $$$$$$$2950.00     |
| $$$$$$$1450.00     |
| $$$$$$$1150.00     |
| $$$$$$$2850.00     |
| $$$$$$$1100.00     |
| $$$$$$$2600.00     |
| $$$$$$$1300.00     |
| $$$$$$$1150.00     |
+--------------------+
15 rows in set (0.00 sec)
```

/* Question 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 concat(left(ename,1),substring(ename,2)) as Name from employee where ename like "J%" or ename like "A%" or ename like "M%" ;

```
+--------+
| Name   |
+--------+
| Allan  |
| Martin |
| Adams  |
| James  |
+--------+
4 rows in set (0.00 sec)
```

/* Question 26

Query to display Name, Hire Date and Day of the week on which the employee started his/her job

***/**

select ename , hire_date , dayofweek(hire_date) DayOfWeek from employee;

```
+--------+------------+-----------+
| ename  | hire_date  | DayOfWeek |
+--------+------------+-----------+
| Ward   | 1980-12-17 |         4 |
| Allan  | 1981-02-20 |         6 |
| Ward   | 1981-02-22 |         1 |
| Ward   | 1981-04-02 |         5 |
| Martin | 1981-04-22 |         4 |
| Blake  | 1981-05-01 |         6 |
| Clark  | 1981-06-09 |         3 |
| King   | 1981-11-17 |         3 |
| Turner | 1981-09-08 |         3 |
| Adams  | 1983-01-12 |         4 |
| Scott  | 1982-12-09 |         5 |
| James  | 1981-12-03 |         5 |
| Ford   | 1981-12-03 |         5 |
| Clark  | 1982-01-23 |         7 |
| Drek   | 1982-07-04 |         1 |
+--------+------------+-----------+
15 rows in set (0.08 sec)
```

/* Question 27

Query to display Name and Commission Amount. If the employee does not earn commission then

use default value ‘No Commission’.

***/**

select ename,if(commission>0,commission,"No Commission") from employee;

```
+--------+-------------------------------------------+
| ename  | if(commission>0,commission,"No Commission") |
+--------+-------------------------------------------+
| Ward   | No Commission                             |
| Allan  | 300.00                                    |
| Ward   | 500.00                                    |
| Ward   | No Commission                             |
| Martin | 1400.00                                   |
| Blake  | No Commission                             |
| Clark  | No Commission                             |
| King   | No Commission                             |
| Turner | No Commission                             |
| Adams  | No Commission                             |
| Scott  | No Commission                             |
| James  | No Commission                             |
| Ford   | No Commission                             |
| Clark  | No Commission                             |
| Drek   | 1500.00                                   |
+--------+-------------------------------------------+
15 rows in set (0.00 sec)
```

/* Question 28

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

***/**

select ename , dname ,dno from employee natural join department;

```
+--------+------------+------+
| ename  | dname      | dno  |
+--------+------------+------+
| Clark  | Accounting | 10   |
| King   | Accounting | 10   |
| Ward   | Research   | 20   |
| Ward   | Research   | 20   |
| Adams  | Research   | 20   |
| Ford   | Research   | 20   |
| Drek   | Research   | 20   |
| Allan  | Sales      | 30   |
| Ward   | Sales      | 30   |
| Martin | Sales      | 30   |
| Blake  | Sales      | 30   |
| Turner | Sales      | 30   |
| James  | Sales      | 30   |
| Scott  | Operation  | 40   |
| Clark  | Operation  | 40   |
+--------+------------+------+
15 rows in set (0.04 sec)
```

/* Question 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  |
+-----------+
| Sales_Man |
| Manager   |
| Clerk     |
+-----------+
3 rows in set (0.01 sec)
```

/* Question 30

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

***/**

select ename,dname,location from employee natural join department where commission>0;

```
+--------+----------+----------+
| ename  | dname    | location |
+--------+----------+----------+
| Allan  | Sales    | Chicago  |
| Ward   | Sales    | Chicago  |
| Martin | Sales    | Chicago  |
| Drek   | Research | Dallas   |
+--------+----------+----------+
4 rows in set (0.00 sec)
```

/* Question 31

Query to display Name, Dept Name of all employees who have an ‘A’ in their name and works at user-specified location.

***/**

set @location=#EnterLoc;

"chicago";

select ename,dname from employee natural join department where (ename like "%A%") and location=@location;

```
+--------+-------+
| ename  | dname |
+--------+-------+
| Allan  | Sales |
| Ward   | Sales |
| Martin | Sales |
| Blake  | Sales |
| James  | Sales |
+--------+-------+
5 rows in set (0.00 sec)
```

/* Question 32

Query to display Name, Job, Department No. and Department Name for all the employees working

at the Dallas location.

***/**

```
+-------+----------+------+----------+
| ename | job_type | dno  | dname    |
+-------+----------+------+----------+
| Ward  | Clerk    | 20   | Research |
| Ward  | Manager  | 20   | Research |
| Adams | Clerk    | 20   | Research |
| Ford  | Analyst  | 20   | Research |
| Drek  | Clerk    | 20   | Research |
+-------+----------+------+----------+
5 rows in set (0.00 sec)
```

/* Question 33

Query to display Name and Employee No. along with their Manager's Name and Manager's

employee no. */

select A.eno,A.ename,A.manager,B.ename "Manager's Name" from employee A , employee B where A.manager=B.eno;

```
+-----+--------+---------+----------------+
| eno | ename  | manager | Manager's Name |
+-----+--------+---------+----------------+
| 736 | Ward   | 790     | James          |
| 749 | Allan  | 769     | Blake          |
| 752 | Ward   | 769     | Blake          |
| 756 | Ward   | 783     | King           |
| 769 | Blake  | 783     | King           |
| 778 | Clark  | 783     | King           |
| 784 | Turner | 769     | Blake          |
| 787 | Adams  | 778     | Clark          |
| 788 | Scott  | 756     | Ward           |
| 790 | James  | 769     | Blake          |
| 792 | Ford   | 756     | Ward           |
| 793 | Clark  | 788     | Scott          |
| 794 | Drek   | 778     | Clark          |
+-----+--------+---------+----------------+
13 rows in set (0.00 sec)
```

/* Question 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 A.eno,A.ename,A.manager,B.ename "Manager's Name" from employee A left join employee B on A.manager=B.eno or A.manager=NULL;

```
+-----+--------+---------+----------------+
| eno | ename  | manager | Manager's Name |
+-----+--------+---------+----------------+
| 736 | Ward   | 790     | James          |
| 749 | Allan  | 769     | Blake          |
| 752 | Ward   | 769     | Blake          |
| 756 | Ward   | 783     | King           |
| 765 | Martin | 198     | NULL           |
| 769 | Blake  | 783     | King           |
| 778 | Clark  | 783     | King           |
| 783 | King   | NULL    | NULL           |
| 784 | Turner | 769     | Blake          |
| 787 | Adams  | 778     | Clark          |
| 788 | Scott  | 756     | Ward           |
| 790 | James  | 769     | Blake          |
| 792 | Ford   | 756     | Ward           |
| 793 | Clark  | 788     | Scott          |
| 794 | Drek   | 778     | Clark          |
+-----+--------+---------+----------------+
15 rows in set (0.00 sec)
```

/* Question 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 =any(select dno from employee where ename like "%t%"));

```
+-----+-------+---------+
| eno | ename | salary  |
+-----+-------+---------+
| 749 | Allan | 2000.00 |
| 769 | Blake | 2870.00 |
| 788 | Scott | 2850.00 |
+-----+-------+---------+
3 rows in set (0.01 sec)
```

/* Question 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 A.ename,A.dno,A.salary from employee A,employee B where B.dno=A.dno and A.salary=B.salary and B.commission>0 and A.commission=0;

```
+-------+------+---------+
| ename | dno  | salary  |
+-------+------+---------+
| Adams | 20   | 1150.00 |
+-------+------+---------+
1 row in set (0.00 sec)
```

/* Question 37

Query to display Name, Hire Date of any employee hired after the employee Blake was hired by the

Company

Assuming there is only one Blake

***/**

select ename,hire_date from employee where hire_date>(select hire_date from employee where ename="Blake");

```
+--------+------------+
| ename  | hire_date  |
+--------+------------+
| Clark  | 1981-06-09 |
| King   | 1981-11-17 |
| Turner | 1981-09-08 |
| Adams  | 1983-01-12 |
| Scott  | 1982-12-09 |
| James  | 1981-12-03 |
| Ford   | 1981-12-03 |
| Clark  | 1982-01-23 |
| Drek   | 1982-07-04 |
+--------+------------+
9 rows in set (0.00 sec)
```

/* Question 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 A.ename,A.hire_date,B.ename,B.hire_date from employee A, employee B where A.hire_date<B.hire_date and a.manager=b.eno;

```
+-------+------------+-------+------------+
| ename | hire_date  | ename | hire_date  |
+-------+------------+-------+------------+
| Ward  | 1980-12-17 | James | 1981-12-03 |
| Allan | 1981-02-20 | Blake | 1981-05-01 |
| Ward  | 1981-02-22 | Blake | 1981-05-01 |
| Ward  | 1981-04-02 | King  | 1981-11-17 |
| Blake | 1981-05-01 | King  | 1981-11-17 |
| Clark | 1981-06-09 | King  | 1981-11-17 |
| Clark | 1982-01-23 | Scott | 1982-12-09 |
+-------+------------+-------+------------+
7 rows in set (0.00 sec)
```

/*Question 39

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

***/**

select ename,repeat("*",salary/100) from employee;

```
+--------+------------------------------+
| ename  | repeat("*",salary/100)       |
+--------+------------------------------+
| Ward   | ************                 |
| Allan  | ******************           |
| Ward   | ************                 |
| Ward   | **********************       |
| Martin | ************                 |
| Blake  | ****************************** |
| Clark  | ****************************** |
| King   | ******************************** |
| Turner | ***************              |
| Adams  | ************                 |
| Scott  | ****************************** |
| James  | ***********                  |
| Ford   | *************************    |
| Clark  | ************                 |
| Drek   | ************                 |
+--------+------------------------------+
15 rows in set (0.00 sec)
```

/* Question 40

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

***/**

select max(salary) Highest, min(salary) Lowest , sum(Salary) Sum , avg(salary) Average from employee;

```
+---------+---------+----------+-------------+
| Highest | Lowest  | Sum      | Average     |
+---------+---------+----------+-------------+
| 2950.00 | 1100.00 | 28370.00 | 1891.333333 |
+---------+---------+----------+-------------+
1 row in set (0.00 sec)
```

/* Question 41

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

***/**

select job_type,max(salary) Highest, min(salary) Lowest , sum(Salary) Sum , avg(salary) Average from employee group by job_type;

```
+-----------+---------+---------+---------+-------------+
| job_type  | Highest | Lowest  | Sum     | Average     |
+-----------+---------+---------+---------+-------------+
| Clerk     | 1300.00 | 1100.00 | 5900.00 | 1180.000000 |
| Sales_Man | 2000.00 | 1250.00 | 6000.00 | 1500.000000 |
| Manager   | 2900.00 | 2300.00 | 8070.00 | 2690.000000 |
| President | 2950.00 | 2950.00 | 2950.00 | 2950.000000 |
| Analyst   | 2850.00 | 2600.00 | 5450.00 | 2725.000000 |
+-----------+---------+---------+---------+-------------+
5 rows in set (0.00 sec)
```

/* Question 42

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

***/**

select count(*),job_type from employee group by job_type;

```
+----------+-----------+
| count(*) | job_type  |
+----------+-----------+
|        5 | Clerk     |
|        4 | Sales_Man |
|        3 | Manager   |
|        1 | President |
|        2 | Analyst   |
+----------+-----------+
5 rows in set (0.00 sec)
```

/* Question 43

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

***/**

select count(distinct manager) from employee;

```
+------------------------+
| count(distinct manager) |
+------------------------+
|                      7 |
+------------------------+
1 row in set (0.00 sec)
```

/* Question 44

Query to display the Difference between the Highest and Lowest Salaries for each department

***/**

select max(salary)-min(salary) from employee group by dno;

```
+-------------------------+
| max(salary)-min(salary) |
+-------------------------+
|                   50.00 |
|                 1450.00 |
|                 1770.00 |
|                 1550.00 |
+-------------------------+
4 rows in set (0.00 sec)
```

/* Question 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 group by manager having manager is not null and min(salary)>1000;

```
+---------+-------------+
| manager | min(salary) |
+---------+-------------+
| 790     |     1200.00 |
| 769     |     1100.00 |
| 783     |     2300.00 |
| 198     |     1250.00 |
| 778     |     1150.00 |
| 756     |     2600.00 |
| 788     |     1300.00 |
+---------+-------------+
7 rows in set (0.00 sec)
```

/* Question 46

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

***/**

select D.dno,location,count(eno),avg(salary) from employee E , department D where E.dno=D.dno group by D.dno;

```
+-----+----------+------------+-------------+
| dno | location | count(eno) | avg(salary) |
+-----+----------+------------+-------------+
| 20  | Dallas   |          5 | 1680.000000 |
| 30  | Chicago  |          6 | 1661.666667 |
| 10  | New York |          2 | 2925.000000 |
| 40  | Boston   |          2 | 2075.000000 |
+-----+----------+------------+-------------+
4 rows in set (0.00 sec)
```

/* Question 47

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

***/**

select ename, hire_date from employee where dno=(select dno from employee where ename="Blake");

```
+--------+------------+
| ename  | hire_date  |
+--------+------------+
| Allan  | 1981-02-20 |
| Ward   | 1981-02-22 |
| Martin | 1981-04-22 |
| Blake  | 1981-05-01 |
| Turner | 1981-09-08 |
| James  | 1981-12-03 |
+--------+------------+
6 rows in set (0.00 sec)
```

/* Question 48

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

salary in their respective department

***/**

select A.eno,A.ename,A.salary,B.salary from employee A, (select avg(salary) Salary,dno from employee group by dno) B where A.salary>B.salary and a.dno=b.dno;

```
+-----+-------+---------+-------------+
| eno | ename | salary  | salary      |
+-----+-------+---------+-------------+
| 783 | King  | 2950.00 | 2925.000000 |
| 756 | Ward  | 2300.00 | 1680.000000 |
| 792 | Ford  | 2600.00 | 1680.000000 |
| 749 | Allan | 2000.00 | 1661.666667 |
| 769 | Blake | 2870.00 | 1661.666667 |
| 788 | Scott | 2850.00 | 2075.000000 |
+-----+-------+---------+-------------+
6 rows in set (0.00 sec)
```

/* Question 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 dno from employee where ename like "%t%");

```
+-----+--------+
| eno | ename  |
+-----+--------+
| 749 | Allan  |
| 752 | Ward   |
| 765 | Martin |
| 769 | Blake  |
| 784 | Turner |
| 790 | James  |
| 788 | Scott  |
| 793 | Clark  |
+-----+--------+
8 rows in set (0.00 sec)
```

/* Question 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  |
+-------+---------+
| Ward  | 2300.00 |
| Blake | 2870.00 |
| Clark | 2900.00 |
+-------+---------+
3 rows in set (0.00 sec)
```

/* Question 51

Query to display the Department No, Name & Job for top-5 employees (as per salary earned) in the

Sales Dept on descending order on name

***/**

select dno , ename, job_type, salary from employee where dno=(select dno from department where dname="Sales") order by salary desc LIMIT 5;

```
+------+--------+-----------+---------+
| dno  | ename  | job_type  | salary  |
+------+--------+-----------+---------+
| 30   | Blake  | Manager   | 2870.00 |
| 30   | Allan  | Sales_Man | 2000.00 |
| 30   | Turner | Sales_Man | 1450.00 |
| 30   | Ward   | Sales_Man | 1300.00 |
| 30   | Martin | Sales_Man | 1250.00 |
+------+--------+-----------+---------+
5 rows in set (0.00 sec)
```

/* Question 52

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

***/**

select distinct b.ename , b.salary , c.salary Avg_Salary from employee A , employee B, (select avg(salary) salary,dno from employee group by dno) C where a.manager=b.eno and b.dno=c.dno and b.salary>c.salary ;

```
+-------+---------+-------------+
| ename | salary  | Avg_Salary  |
+-------+---------+-------------+
| King  | 2950.00 | 2925.000000 |
| Ward  | 2300.00 | 1680.000000 |
| Blake | 2870.00 | 1661.666667 |
| Scott | 2850.00 | 2075.000000 |
+-------+---------+-------------+
4 rows in set (0.00 sec)
```

/* Question 53

Create a view to store following information:

Dname| Location |Average salary| Number of Employee|Date of joining of first employee

***/**

create view Demp as

select Dname,Location,b.salary Average_Salary, b.count "Number of Employee",b.hire_date "Date of joining of first employee"

from (select avg(salary) salary,dno,min(hire_date) hire_date,count(*) count from employee group by dno) B,

Department D where b.dno=d.dno ;

```
+------------+----------+----------------+--------------------+----------------------------------+
| Dname      | Location | Average_Salary | Number of Employee | Date of joining of first employee |
+------------+----------+----------------+--------------------+----------------------------------+
| Accounting | New York |    2925.000000 |                  2 | 1981-06-09                       |
| Research   | Dallas   |    1680.000000 |                  5 | 1980-12-17                       |
| Sales      | Chicago  |    1661.666667 |                  6 | 1981-02-20                       |
| Operation  | Boston   |    2075.000000 |                  2 | 1982-01-23                       |
+------------+----------+----------------+--------------------+----------------------------------+
4 rows in set (0.00 sec)
```