DBMS

LAB Assignment-3

1. Create table **EMPLOYEE** with the following details.

FIELD NAME	TYPE
EMPLOYEE_ID	**NUMBER(6)**
LAST_NAME	**VARCHAR2(25)**
JOB_ID	**VARCHAR2(10)**
SALARY	**NUMBER(8,2)**
COMM_PCT	**NUMBER (4,2)**
MGR_ID	**NUMBER (6)**
DEPARTMENT_ID	**NUMBER (4)**

```
CREATE TABLE EMPLOYEE (
    EMPLOYEE_ID INT(6) PRIMARY KEY,
    LAST_NAME VARCHAR(25),
    JOB_ID VARCHAR(10),
    SALARY DECIMAL(8,2),
    COMM_PCT DECIMAL(4,2),
    MGR_ID INT(6),
    DEPARTMENT_ID INT(4)
);
```

2. Insert the following data into **EMPLOYEE** table.

EMPLOYEE_ID	LAST_NAME	JOB_ID	SALARY	COMM_PCT	MGR_ID	DEPARTMENT_ID
198	Connell	SH_CLERK	2600	2.5	124	50
199	Grant	SH_CLERK	2600	2.2	124	50
200	Whalen	AD_ASST	4400	1.3	101	10
201	Hartstein	IT_PROG	6000	null	100	20
202	Fay	AC_MGR	6500	null	210	20
203	Mavris	AD_VP	7500	null	101	40
204	Baer	AD_PRES	3500	1.5	101	90
205	Higgins	AC_MGR	2300	null	101	60
206	Gitz	IT_PROG	5000	null	103	60
100	King	AD_ASST	8956	0.3	108	100
101	Kochar	SH_CLERK	3400	1.3	118	30

```
INSERT INTO EMPLOYEE VALUES
(198,'Connell','SH_CLERK',2600,2.5,124,50),
(199,'Grant','SH_CLERK',2600,2.2,124,50),
(200,'Whalen','AD_ASST',4400,1.3,101,10),
(201,'Hartstein','IT_PROG',6000,NULL,100,20),
(202,'Fay','AC_MGR',6500,NULL,210,20),
(203,'Mavris','AD_VP',7500,NULL,101,40),
(204,'Baer','AD_PRES',3500,1.5,101,90),
(205,'Higgins','AC_MGR',2300,NULL,101,60),
(206,'Gitz','IT_PROG',5000,NULL,103,60),
(100,'King','AD_ASST',8956,0.3,108,100),
(101,'Kochar','SH_CLERK',3400,1.3,118,30);
```

3. Display last_name, job_id, employee_id for each employee with employee_id appearing first.

```
mysql> SELECT EMPLOYEE_ID,LAST_NAME,JOB_ID FROM EMPLOYEE;
+-------------+-------------+-----------+
| EMPLOYEE_ID | LAST_NAME   | JOB_ID    |
+-------------+-------------+-----------+
|         100 | KING        | AD_ASST   |
|         101 | KOCHAR      | SH_CLERK  |
|         198 | CONNELL     | SH_CLERK  |
|         199 | GRANT       | SH_CLERK  |
|         200 | WHALEN      | AD_ASST   |
|         201 | HARTESTEIN  | IT_PROG   |
|         202 | FAY         | AC_MGR    |
|         203 | MAVRIS      | AD_VP     |
|         204 | BARE        | AD_PRES   |
|         205 | HIGGINS     | AC_MGR    |
|         206 | GITZ        | IT_PROG   |
+-------------+-------------+-----------+
11 rows in set (0.00 sec)
```

4. Display the details of all employees of department 60.

```
mysql> SELECT*FROM EMPLOYEE WHERE DEPARTMENT_ID=60;
+-------------+----------+---------+---------+----------+--------+---------------+
| EMPLOYEE_ID | LAST_NAME | JOB_ID  | SALARY  | COMM_PCT | MGR_ID | DEPARTMENT_ID |
+-------------+----------+---------+---------+----------+--------+---------------+
|         205 | HIGGINS   | AC_MGR  | 2300.00 |     NULL |    101 |            60 |
|         206 | GITZ      | IT_PROG | 5000.00 |     NULL |    103 |            60 |
+-------------+----------+---------+---------+----------+--------+---------------+
2 rows in set (0.00 sec)
```

5. Display the employee details of the employee whose last_name is King.

```
mysql> SELECT*FROM EMPLOYEE WHERE LAST_NAME='KING';
+-------------+----------+---------+---------+----------+--------+---------------+
| EMPLOYEE_ID | LAST_NAME | JOB_ID  | SALARY  | COMM_PCT | MGR_ID | DEPARTMENT_ID |
+-------------+----------+---------+---------+----------+--------+---------------+
|         100 | KING      | AD_ASST | 8956.00 |     0.30 |    118 |           100 |
+-------------+----------+---------+---------+----------+--------+---------------+
1 row in set (0.01 sec)
```

6. Display unique job_id from **EMPLOYEE** table. Give alias name to the column as JOB_TITLE.

```
mysql> SELECT DISTINCT JOB_ID AS JOB_TITLE FROM EMPLOYEE;
+-----------+
| JOB_TITLE |
+-----------+
| AD_ASST   |
| SH_CLERK  |
| IT_PROG   |
| AC_MGR    |
| AD_VP     |
| AD_PRES   |
+-----------+
6 rows in set (0.01 sec)
```

7. Display last_name, salary and salary increase of Rs300. Give the new column name as 'Increased Salary'.

```
mysql>  SELECT LAST_NAME,SALARY,SALARY+300 AS INCREASED_SALARY FROM EMPLOYEE;
+------------+---------+------------------+
| LAST_NAME  | SALARY  | INCREASED_SALARY |
+------------+---------+------------------+
| KING       | 8956.00 |          9256.00 |
| KOCHAR     | 3400.00 |          3700.00 |
| CONNELL    | 2600.00 |          2900.00 |
| GRANT      | 2600.00 |          2900.00 |
| WHALEN     | 4400.00 |          4700.00 |
| HARTESTEIN | 6000.00 |          6300.00 |
| FAY        | 6500.00 |          6800.00 |
| MAVRIS     | 7500.00 |          7800.00 |
| BARE       | 3500.00 |          3800.00 |
| HIGGINS    | 2300.00 |          2600.00 |
| GITZ       | 5000.00 |          5300.00 |
+------------+---------+------------------+
11 rows in set (0.01 sec)
```

8. Display last_name, salary and **annual** compensation of all employees, plus a onetime bonus of Rs 100. Give an alias name to the column displaying annual compensation.

```
mysql> SELECT LAST_NAME,SALARY,SALARY*12+100 AS ANNUAL_COMPENSATION FROM EMPLOYEE;
+------------+---------+---------------------+
| LAST_NAME  | SALARY  | ANNUAL_COMPENSATION |
+------------+---------+---------------------+
| KING       | 8956.00 |           107572.00 |
| KOCHAR     | 3400.00 |            40900.00 |
| CONNELL    | 2600.00 |            31300.00 |
| GRANT      | 2600.00 |            31300.00 |
| WHALEN     | 4400.00 |            52900.00 |
| HARTESTEIN | 6000.00 |            72100.00 |
| FAY        | 6500.00 |            78100.00 |
| MAVRIS     | 7500.00 |            90100.00 |
| BARE       | 3500.00 |            42100.00 |
| HIGGINS    | 2300.00 |            27700.00 |
| GITZ       | 5000.00 |            60100.00 |
+------------+---------+---------------------+
```

9. Display the details of those employees who get commission.

```
mysql>  SELECT*FROM EMPLOYEE WHERE COMM_PCT IS NOT NULL;
+-------------+-----------+----------+---------+----------+--------+---------------+
| EMPLOYEE_ID | LAST_NAME | JOB_ID   | SALARY  | COMM_PCT | MGR_ID | DEPARTMENT_ID |
+-------------+-----------+----------+---------+----------+--------+---------------+
|         100 | KING      | AD_ASST  | 8956.00 |     0.30 |    118 |           100 |
|         101 | KOCHAR    | SH_CLERK | 3400.00 |     1.30 |    108 |            30 |
|         198 | CONNELL   | SH_CLERK | 2600.00 |     2.50 |    124 |            50 |
|         199 | GRANT     | SH_CLERK | 2600.00 |     2.20 |    124 |            50 |
|         200 | WHALEN    | AD_ASST  | 4400.00 |     1.30 |    101 |            10 |
|         204 | BARE      | AD_PRES  | 3500.00 |     1.50 |    101 |            90 |
+-------------+-----------+----------+---------+----------+--------+---------------+
6 rows in set (0.00 sec)
```

10. Display the details of those employees who do not get commission.

```
mysql> SELECT*FROM EMPLOYEE WHERE COMM_PCT IS  NULL;
+-------------+-----------+---------+---------+----------+--------+---------------+
| EMPLOYEE_ID | LAST_NAME | JOB_ID  | SALARY  | COMM_PCT | MGR_ID | DEPARTMENT_ID |
+-------------+-----------+---------+---------+----------+--------+---------------+
|         201 | HARTESTEIN | IT_PROG | 6000.00 |     NULL |    100 |            20 |
|         202 | FAY        | AC_MGR  | 6500.00 |     NULL |    210 |            20 |
|         203 | MAVRIS     | AD_VP   | 7500.00 |     NULL |    101 |            40 |
|         205 | HIGGINS    | AC_MGR  | 2300.00 |     NULL |    101 |            60 |
|         206 | GITZ       | IT_PROG | 5000.00 |     NULL |    103 |            60 |
+-------------+-----------+---------+---------+----------+--------+---------------+
5 rows in set (0.00 sec)
```

11. Display the Employee_id, Department_id and Salary all employees whose salary is greater than 5000.

```
mysql> SELECT EMPLOYEE_ID,SALARY,DEPARTMENT_ID FROM EMPLOYEE WHERE SALARY>5000;
+-------------+---------+---------------+
| EMPLOYEE_ID | SALARY  | DEPARTMENT_ID |
+-------------+---------+---------------+
|         100 | 8956.00 |           100 |
|         201 | 6000.00 |            20 |
|         202 | 6500.00 |            20 |
|         203 | 7500.00 |            40 |
+-------------+---------+---------------+
4 rows in set (0.01 sec)
```

12. Display the Last_Name and Salary of all employees whose salary is between 4000 and 7000.

```
mysql> SELECT LAST_NAME,SALARY FROM EMPLOYEE WHERE SALARY BETWEEN 4000 AND 7000;
+-----------+---------+
| LAST_NAME | SALARY  |
+-----------+---------+
| WHALEN    | 4400.00 |
| HARTESTEIN | 6000.00 |
| FAY       | 6500.00 |
| GITZ      | 5000.00 |
+-----------+---------+
4 rows in set (0.00 sec)
```

13. Display the details of all employees whose salary is either 6000 or 6500 or 7000.

```
mysql> SELECT *FROM EMPLOYEE WHERE SALARY IN (6000,6500,7000);
+-------------+-----------+---------+---------+----------+--------+---------------+
| EMPLOYEE_ID | LAST_NAME | JOB_ID  | SALARY  | COMM_PCT | MGR_ID | DEPARTMENT_ID |
+-------------+-----------+---------+---------+----------+--------+---------------+
|         201 | HARTESTEIN | IT_PROG | 6000.00 |     NULL |    100 |            20 |
|         202 | FAY        | AC_MGR  | 6500.00 |     NULL |    210 |            20 |
+-------------+-----------+---------+---------+----------+--------+---------------+
2 rows in set (0.00 sec)
```

14. Display the details of all those employees who work either in department 10 or 20 or 30 or 50.

```
mysql> SELECT*FROM EMPLOYEE WHERE DEPARTMENT_ID IN (10,20,30,50);
+-------------+-----------+---------+---------+----------+--------+---------------+
| EMPLOYEE_ID | LAST_NAME | JOB_ID  | SALARY  | COMM_PCT | MGR_ID | DEPARTMENT_ID |
+-------------+-----------+---------+---------+----------+--------+---------------+
|         101 | KOCHAR    | SH_CLERK | 3400.00 |     1.30 |    108 |            30 |
|         198 | CONNELL   | SH_CLERK | 2600.00 |     2.50 |    124 |            50 |
|         199 | GRANT     | SH_CLERK | 2600.00 |     2.20 |    124 |            50 |
|         200 | WHALEN    | AD_ASST | 4400.00 |     1.30 |    101 |            10 |
|         201 | HARTESTEIN | IT_PROG | 6000.00 |     NULL |    100 |            20 |
|         202 | FAY       | AC_MGR  | 6500.00 |     NULL |    210 |            20 |
+-------------+-----------+---------+---------+----------+--------+---------------+
6 rows in set (0.00 sec)
```

15. Display the details of all employees whose salary is not equal to 5000.

```
mysql> SELECT *FROM EMPLOYEE WHERE SALARY <> 5000;
+-------------+-----------+----------+---------+----------+--------+---------------+
| EMPLOYEE_ID | LAST_NAME | JOB_ID   | SALARY  | COMM_PCT | MGR_ID | DEPARTMENT_ID |
+-------------+-----------+----------+---------+----------+--------+---------------+
|         100 | KING      | AD_ASST  | 8956.00 |     0.30 |    118 |           100 |
|         101 | KOCHAR    | SH_CLERK | 3400.00 |     1.30 |    108 |            30 |
|         198 | CONNELL   | SH_CLERK | 2600.00 |     2.50 |    124 |            50 |
|         199 | GRANT     | SH_CLERK | 2600.00 |     2.20 |    124 |            50 |
|         200 | WHALEN    | AD_ASST  | 4400.00 |     1.30 |    101 |            10 |
|         201 | HARTESTEIN| IT_PROG  | 6000.00 |     NULL |    100 |            20 |
|         202 | FAY       | AC_MGR   | 6500.00 |     NULL |    210 |            20 |
|         203 | MAVRIS    | AD_VP    | 7500.00 |     NULL |    101 |            40 |
|         204 | BARE      | AD_PRES  | 3500.00 |     1.50 |    101 |            90 |
|         205 | HIGGINS   | AC_MGR   | 2300.00 |     NULL |    101 |            60 |
+-------------+-----------+----------+---------+----------+--------+---------------+
10 rows in set (0.00 sec)
```

16. Display the details of all the CLERKS working in the organization.

```
mysql>  SELECT *FROM EMPLOYEE WHERE JOB_ID LIKE'%CLERK%';
+-------------+-----------+----------+---------+----------+--------+---------------+
| EMPLOYEE_ID | LAST_NAME | JOB_ID   | SALARY  | COMM_PCT | MGR_ID | DEPARTMENT_ID |
+-------------+-----------+----------+---------+----------+--------+---------------+
|         101 | KOCHAR    | SH_CLERK | 3400.00 |     1.30 |    108 |            30 |
|         198 | CONNELL   | SH_CLERK | 2600.00 |     2.50 |    124 |            50 |
|         199 | GRANT     | SH_CLERK | 2600.00 |     2.20 |    124 |            50 |
+-------------+-----------+----------+---------+----------+--------+---------------+
3 rows in set (0.01 sec)
```

17. Update the job_id's of the employees who earn more than 5000 to Grade_A. Display the table **EMPLOYEE** after updating.

```
mysql> UPDATE EMPLOYEE SET JOB_ID='GRADE_A'WHERE SALARY>5000;
Query OK, 4 rows affected (0.02 sec)
Rows matched: 4  Changed: 4  Warnings: 0

mysql> SELECT*FROM EMPLOYEE;
+-------------+-----------+----------+---------+----------+--------+---------------+
| EMPLOYEE_ID | LAST_NAME | JOB_ID   | SALARY  | COMM_PCT | MGR_ID | DEPARTMENT_ID |
+-------------+-----------+----------+---------+----------+--------+---------------+
|         100 | KING      | GRADE_A  | 8956.00 |     0.30 |    118 |           100 |
|         101 | KOCHAR    | SH_CLERK | 3400.00 |     1.30 |    108 |            30 |
|         198 | CONNELL   | SH_CLERK | 2600.00 |     2.50 |    124 |            50 |
|         199 | GRANT     | SH_CLERK | 2600.00 |     2.20 |    124 |            50 |
|         200 | WHALEN    | AD_ASST  | 4400.00 |     1.30 |    101 |            10 |
|         201 | HARTESTEIN| GRADE_A  | 6000.00 |     NULL |    100 |            20 |
|         202 | FAY       | GRADE_A  | 6500.00 |     NULL |    210 |            20 |
|         203 | MAVRIS    | GRADE_A  | 7500.00 |     NULL |    101 |            40 |
|         204 | BARE      | AD_PRES  | 3500.00 |     1.50 |    101 |            90 |
|         205 | HIGGINS   | AC_MGR   | 2300.00 |     NULL |    101 |            60 |
|         206 | GITZ      | IT_PROG  | 5000.00 |     NULL |    103 |            60 |
+-------------+-----------+----------+---------+----------+--------+---------------+
11 rows in set (0.00 sec)
```

18. Display the details of all those employees who are either CLERK or PROGRAMMER or ASSISTANT.

```
mysql> SELECT *FROM EMPLOYEE WHERE JOB_ID LIKE '%CLERK%'OR JOB_ID LIKE '%PROG%' OR JOB_ID LIKE '%ASST%';
+-------------+-----------+----------+---------+----------+--------+---------------+
| EMPLOYEE_ID | LAST_NAME | JOB_ID   | SALARY  | COMM_PCT | MGR_ID | DEPARTMENT_ID |
+-------------+-----------+----------+---------+----------+--------+---------------+
|         101 | KOCHAR    | SH_CLERK | 3400.00 |     1.30 |    108 |            30 |
|         198 | CONNELL   | SH_CLERK | 2600.00 |     2.50 |    124 |            50 |
|         199 | GRANT     | SH_CLERK | 2600.00 |     2.20 |    124 |            50 |
|         200 | WHALEN    | AD_ASST  | 4400.00 |     1.30 |    101 |            10 |
|         206 | GITZ      | IT_PROG  | 5000.00 |     NULL |    103 |            60 |
+-------------+-----------+----------+---------+----------+--------+---------------+
5 rows in set (0.00 sec)
```

19. Display those employees from the **EMPLOYEE** table whose designation is CLERK and salary is less than 3000.

```
mysql> SELECT *FROM EMPLOYEE WHERE JOB_ID LIKE '%CLERK%' AND SALARY<3000;
+-------------+-----------+----------+---------+----------+--------+---------------+
| EMPLOYEE_ID | LAST_NAME | JOB_ID   | SALARY  | COMM_PCT | MGR_ID | DEPARTMENT_ID |
+-------------+-----------+----------+---------+----------+--------+---------------+
|         198 | CONNELL   | SH_CLERK | 2600.00 |     2.50 |    124 |            50 |
|         199 | GRANT     | SH_CLERK | 2600.00 |     2.20 |    124 |            50 |
+-------------+-----------+----------+---------+----------+--------+---------------+
2 rows in set (0.00 sec)
```

Display those employees Last_Name, Mgr_id from the **EMPLOYEE** table whose salary is above 3000 and work under Manager 101.

```
mysql> SELECT LAST_NAME,MGR_ID FROM EMPLOYEE WHERE SALARY>3000 AND MGR_ID=101;
+-----------+--------+
| LAST_NAME | MGR_ID |
+-----------+--------+
| WHALEN    |    101 |
| MAVRIS    |    101 |
| BARE      |    101 |
+-----------+--------+
3 rows in set (0.00 sec)
```