MySQL Assignment 3 (DQL) (Basic Select)

Que 1 Write a query to display the names (first_name, last_name) using alias name “First Name", "Last Name.
Ans:

```
mysql> SELECT
    ->   first_name AS "First Name",
    ->   last_name  AS "Last Name"
    -> FROM employees;
+------------+-----------+
| First Name | Last Name |
+------------+-----------+
| Steven     | King      |
| Neena      | Kochhar   |
| Alexander  | Hunold    |
| Diana      | Lorentz   |
| Nancy      | Greenberg |
+------------+-----------+
5 rows in set (0.00 sec)
```

Que 2 Write a query to get unique department ID from employee table.
Ans :

```
mysql> SELECT DISTINCT department_id
    -> FROM employees;
+---------------+
| department_id |
+---------------+
|            10 |
|            30 |
|            60 |
|            80 |
+---------------+
4 rows in set (0.02 sec)
```

Que 3 Write a query to get all employee details from the employee table order by first name, descending
Ans:

```
 mysql> SELECT *
    -> FROM employees
    -> ORDER BY first_name DESC;
+-------------+------------+-----------+--------------+-------------
+------------+---------+----------+------------+------------+--------------
+----------------+
| employee_id | first_name | last_name | email         | phone_number |
hire_date  | job_id  | salary   | commission | manager_id | department_id |
commission_pct |
+-------------+------------+-----------+--------------+-------------
+------------+---------+----------+------------+------------+--------------
+----------------+
|         100 | Steven     | King      | not available | 515.123.4567 | 1987-06-
17 | AD_PRES | 26400.00 |       NULL |        200 |            10 |
0.10 |
|         101 | Neena      | Kochhar   | not available | 515.123.4568 | 1987-06-
18 | AD_VP   | 18700.00 |       NULL |        200 |            10 |
0.10 |
|         108 | Nancy      | Greenberg | not available | 515.124.4569 | 1987-06-
25 | SA_MAN  | 13200.00 |       NULL |        145 |            80 |
0.10 |
|         107 | Diana      | Lorentz   | not available | 590.423.5567 | 1987-06-
24 | IT_PROG |  4620.00 |       NULL |        114 |            30 |
0.10 |
|         103 | Alexander  | Hunold    | not available | 590.423.4567 | 1987-06-
20 | IT_PROG |  9900.00 |       NULL |        103 |            60 |
0.10 |
```

```
+-------------+------------+-----------+---------------+-------------
+------------+---------+----------+------------+------------+--------------
+----------------+
5 rows in set (0.01 sec)
```

Que 4 Write a query to get the names (first_name, last_name), salary, PF of all the employees (PF is calculated as 15% of salary).
Ans:

```
 mysql> SELECT first_name, last_name, salary, salary * 0.15 AS PF
    -> FROM employees;
+------------+-----------+----------+-----------+
| first_name | last_name | salary   | PF        |
+------------+-----------+----------+-----------+
| Steven     | King      | 26400.00 | 3960.0000 |
| Neena      | Kochhar   | 18700.00 | 2805.0000 |
| Alexander  | Hunold    |  9900.00 | 1485.0000 |
| Diana      | Lorentz   |  4620.00 |  693.0000 |
| Nancy      | Greenberg | 13200.00 | 1980.0000 |
+------------+-----------+----------+-----------+
5 rows in set (0.00 sec)
```

Que 5 Write a query to get the employee ID, names (first_name, last_name), salary in ascending order of salary.
Ans:

```
 mysql> SELECT employee_id, first_name, last_name, salary
    -> FROM employees
    -> ORDER BY salary ASC;
+-------------+------------+-----------+----------+
| employee_id | first_name | last_name | salary   |
+-------------+------------+-----------+----------+
|         107 | Diana      | Lorentz   |  4620.00 |
|         103 | Alexander  | Hunold    |  9900.00 |
|         108 | Nancy      | Greenberg | 13200.00 |
|         101 | Neena      | Kochhar   | 18700.00 |
|         100 | Steven     | King      | 26400.00 |
+-------------+------------+-----------+----------+
5 rows in set (0.00 sec)
```

Que 6 Write a query to get the total salaries payable to employees.
Ans:

```
 mysql> SELECT SUM(salary) AS total_salary
    -> FROM employees;
+--------------+
| total_salary |
+--------------+
|     72820.00 |
+--------------+
1 row in set (0.00 sec)
```

Que 7 Write a query to get the maximum and minimum salary from employees table.
Ans:

```
mysql> SELECT MAX(salary) AS max_salary, MIN(salary) AS min_salary
    -> FROM employees;
+------------+------------+
| max_salary | min_salary |
+------------+------------+
|   26400.00 |    4620.00 |
+------------+------------+
1 row in set (0.00 sec)
```

Que 8 Write a query to get the average salary and number of employees in the employees table.
Ans:

```
mysql> SELECT AVG(salary) AS avg_salary, COUNT(*) AS total_employees
    -> FROM employees;
+--------------+-----------------+
| avg_salary   | total_employees |
+--------------+-----------------+
| 14564.000000 |               5 |
+--------------+-----------------+
1 row in set (0.01 sec)
```

Que 9 Write a query to get the number of employees working with the company.

Ans:

```
 mysql> SELECT COUNT(*) AS employee_count
    -> FROM employees;
+----------------+
| employee_count |
+----------------+
|              5 |
+----------------+
1 row in set (0.01 sec)
```

Que 10 Write a query to get the number of jobs available in the employees table

Ans:

```
 mysql> SELECT COUNT(DISTINCT job_id) AS total_jobs
    -> FROM employees;
+------------+
| total_jobs |
+------------+
|          4 |
+------------+
1 row in set (0.01 sec)
```

Que 11 Write a query to select first 10 records from a table.

Ans:

```
mysql> SELECT *
    -> FROM employees
    -> LIMIT 10;
+-------------+------------+-----------+---------------+-------------
+------------+---------+----------+------------+------------+--------------
+----------------+
| employee_id | first_name | last_name | email         | phone_number |
hire_date  | job_id  | salary   | commission | manager_id | department_id |
commission_pct |
+-------------+------------+-----------+---------------+-------------
+------------+---------+----------+------------+------------+--------------
+----------------+
|         100 | Steven     | King      | not available | 515.123.4567 | 1987-06-
17 | AD_PRES | 26400.00 |       NULL |        200 |            10 |
0.10 |
|         101 | Neena      | Kochhar   | not available | 515.123.4568 | 1987-06-
18 | AD_VP   | 18700.00 |       NULL |        200 |            10 |
0.10 |
|         103 | Alexander  | Hunold    | not available | 590.423.4567 | 1987-06-
20 | IT_PROG |  9900.00 |       NULL |        103 |            60 |
0.10 |
|         107 | Diana      | Lorentz   | not available | 590.423.5567 | 1987-06-
24 | IT_PROG |  4620.00 |       NULL |        114 |            30 |
0.10 |
|         108 | Nancy      | Greenberg | not available | 515.124.4569 | 1987-06-
25 | SA_MAN  | 13200.00 |       NULL |        145 |            80 |
0.10 |
+-------------+------------+-----------+---------------+-------------
+------------+---------+----------+------------+------------+--------------
+----------------+
```

```
5 rows in set (0.00 sec)
```

Que 12.Write a query to display the name (first_name, last_name) and salary for all employees whose salary is not in the range $10,000 through $15,000
Ans:

```
mysql> SELECT first_name, last_name, salary
    -> FROM employees
    -> WHERE salary NOT BETWEEN 10000 AND 15000;
+------------+-----------+----------+
| first_name | last_name | salary   |
+------------+-----------+----------+
| Steven     | King      | 26400.00 |
| Neena      | Kochhar   | 18700.00 |
| Alexander  | Hunold    |  9900.00 |
| Diana      | Lorentz   |  4620.00 |
+------------+-----------+----------+
4 rows in set (0.00 sec)
```

Que 13.Write a query to display the name (first_name, last_name) and department ID of all employees in departments 30 or 100 in ascending order.
Ans:

```
mysql> SELECT first_name, last_name, department_id
    -> FROM employees
    -> WHERE department_id IN (30, 100)
    -> ORDER BY department_id ASC;
+------------+-----------+---------------+
| first_name | last_name | department_id |
+------------+-----------+---------------+
| Diana      | Lorentz   |            30 |
+------------+-----------+---------------+
1 row in set (0.00 sec)
```

Que 14.Write a query to display the name (first_name, last_name) and salary for all employees whose salary is not in the range $10,000 through $15,000 and are in department 30 or 100.
Ans:

```
mysql> SELECT first_name, last_name, salary
    -> FROM employees
    -> WHERE salary NOT BETWEEN 10000 AND 15000
    -> AND department_id IN (30, 100);
+------------+-----------+---------+
| first_name | last_name | salary  |
+------------+-----------+---------+
| Diana      | Lorentz   | 4620.00 |
+------------+-----------+---------+
1 row in set (0.00 sec)
```

Que 15.Write a query to display the name (first_name, last_name) and hire date for all employees who were hired in 1987.
Ans:

```
mysql> SELECT first_name, last_name, hire_date
    -> FROM employees
    -> WHERE YEAR(hire_date) = 1987;
+------------+-----------+------------+
| first_name | last_name | hire_date  |
+------------+-----------+------------+
| Steven     | King      | 1987-06-17 |
| Neena      | Kochhar   | 1987-06-18 |
| Alexander  | Hunold    | 1987-06-20 |
| Diana      | Lorentz   | 1987-06-24 |
| Nancy      | Greenberg | 1987-06-25 |
+------------+-----------+------------+
5 rows in set (0.01 sec)
```

Que 16.Write a query to display the first_name of all employees who have both "b" and "c" in their first name

Ans:

```
mysql> SELECT first_name
    -> FROM employees
    -> WHERE LOWER(first_name) LIKE '%b%'
    -> AND LOWER(first_name) LIKE '%c%';
Empty set (0.01 sec)
```

Que 17.Write a query to display the last name, job, and salary for all employees whose job is that of a Programmer or a Shipping Clerk, and whose salary is not equal to $4,500, $10,000, or $15,000.

Ans:

```
 mysql> SELECT last_name, job_id, salary
    -> FROM employees
    -> WHERE job_id IN ('PROGRAMMER', 'SHIPPING_CLERK')
    -> AND salary NOT IN (4500, 10000, 15000);
Empty set (0.00 sec)
```

Que 18.Write a query to display the last name of employees whose names have exactly 6 characters.

Ans:

```
mysql> SELECT last_name
    -> FROM employees
    -> WHERE CHAR_LENGTH(last_name) = 6;
+-----------+
| last_name |
+-----------+
| Hunold    |
+-----------+
1 row in set (0.13 sec)
```

Que 19.Write a query to display the last name of employees having 'e' as the third character.

Ans:

```
mysql> SELECT last_name
    -> FROM employees
    -> WHERE last_name LIKE '__e%';
+-----------+
| last_name |
+-----------+
| Greenberg |
+-----------+
1 row in set (0.00 sec)
```

Que 20.Write a query to display the jobs/designations available in the employees table.

Ans:

```
mysql> SELECT DISTINCT job_id
    -> FROM employees;
+---------+
| job_id  |
+---------+
| AD_PRES |
| AD_VP   |
| IT_PROG |
| SA_MAN  |
+---------+
4 rows in set (0.00 sec)
```

Que 21.Write a query to select all record from employees where last name in 'BLAKE', 'SCOTT', 'KING' and 'FORD'

Ans:

```
mysql> SELECT *
    -> FROM employees
    -> WHERE last_name IN ('BLAKE', 'SCOTT', 'KING', 'FORD');
+-------------+------------+-----------+---------------+-------------
+------------+---------+----------+------------+------------+---------------
+----------------+
| employee_id | first_name | last_name | email         | phone_number |
hire_date  | job_id  | salary   | commission | manager_id | department_id |
commission_pct |
+-------------+------------+-----------+---------------+-------------
+------------+---------+----------+------------+------------+---------------
+----------------+
|         100 | Steven     | King      | not available | 515.123.4567 | 1987-06-
17 | AD_PRES | 26400.00 |       NULL |        200 |            10 |
0.10 |
+-------------+------------+-----------+---------------+-------------
+------------+---------+----------+------------+------------+---------------
+----------------+
1 row in set (0.00 sec)
```