**ASSIGNMENT-2**

1.select all employees in department 10 whose salary is greater than 3000. [table: employee]

mysql> select \* from employee where salary>3000 and deptno = 10;

2. The grading of students based on the marks they have obtained is done as follows

40 to 50 -> Second Class

50 to 60 -> First Class

60 to 80 -> First Class

80 to 100 -> Distinctions

a. How many students have graduated with first class?

b. How many students have obtained distinction? [table: students]

1. mysql> select count(\*) from students where marks between 50 and 80;
2. mysql> select count(\*) from students where marks between 80 and 100;

3. Get a list of city names from station with even ID numbers only. Exclude duplicates from your answer.[table: station]

mysql> select DISTINCT \* from station where id % 2 = 0;

4. Find the difference between the total number of city entries in the table and the number of distinct city entries in the table. In other words, if N is the number of city entries in station, and N1 is the number of distinct city names in station, write a query to find the value of N-N1 from station.[table: station]

mysql> select (count(CITY)- count(distinct CITY)) as total\_duplicate\_city\_entries from STATION;

5. a. Query the list of CITY names starting with vowels (i.e., a, e, i, o, or u) from STATION. Your result cannot contain duplicates. [Hint: Use RIGHT() / LEFT() methods ]

mysql> select DISTINCT CITY from STATION where CITY like 'A%' OR CITY like 'E%' OR CITY like 'I%' OR CITY like 'O%' OR CITY like 'U%';

b. Query the list of CITY names from STATION which have vowels (i.e., a, e, i, o, and u) as both their first and last characters. Your result cannot contain duplicates.

mysql> select distinct city from station where SUBSTRING(city,1,1) in ('A','E','I','O','U') and SUBSTRING(city,-1,1) in ('A','E','I','O','U');

1. Query the list of CITY names from STATION that do not start with vowels. Your result cannot contain duplicates.

mysql> select DISTINCT city from station where substring(city,1,1) not in ('a','e','i','o','u');

1. Query the list of CITY names from STATION that either do not start with vowels or do not end with vowels. Your result cannot contain duplicates. [table: station]

mysql> select DISTINCT city from station where substring(city,1,1) not in ('a','e','i','o','u') and substring(city,-1,1) not in ('a','e','i','o','u');

7. Write a query that prints a list of employee names having a salary greater than $2000 per month who have been employed for less than 10 months. Sort your result by ascending emp\_id. [table: emp]

mysql> select emp\_no,first\_name,last\_name,salary,hire\_date, month(hire\_date) as Total\_months from emp where month(hire\_date) < 10 and salary > 2000;

8. How much money does the company spend every month on salaries for each department? [table: emp]

Expected Result:

+-------------+--------+

| sum(salary) | deptno |

+-------------+--------+

| 30700.00 | 10 |

| 13600.00 | 20 |

| 2600.00 | 30 |

+-------------+--------+

mysql> select deptno, sum(salary) from emp group by deptno;

9. How many cities in the CITY table have a Population larger than 100000. [table: city]

mysql> select count(\*) as population from city where population > 100000;

10. What is the total population of California? [table: city]

mysql> select sum(population) from city where district="California";

11. What is the average population of the districts in each country? [table: city]

Expected Result:

+-------------+-----------------+

| countrycode | avg(population) |

+-------------+-----------------+

| JPN | 175839.2000 |

| NLD | 593321.0000 |

| USA | 120225.8750 |

+-------------+-----------------+

mysql> select countrycode, avg(population) from city group by countrycode;