Practice Exercises#3 mysql:

**You have been hired a mysql programmer for Acme Corporations: Your first task is to create some reports based on data from the HR tables.**

1. Find the highest, lowest, sum and average salary of all employees. Label the columns MAXIMUM, MINIMUM, SUM and AVERAGE respectively. Round your results to the nearest whole number. **Solution: select ROUND(avg(salary)) AVERAGE, max(salary) MAXIMUM, min(salary) MINIMUM, sum(salary) SUM from employees;**
2. Modify Question 1 to display the maximum, minimum, sum and average salary for each job type. **Solution:** **select job\_id, ROUND(avg(salary)) AVG, max(salary) MAX, min(salary) MIN, sum(salary) SUM from employees group by job\_id;**
3. Write a query to display the number of people with the same job. **Solution:** **select job\_id, count(job\_id) JOBS from employees group by job\_id;**
4. Determine the number of managers without listing them. Label the column **Number of Managers. Solution: select count(DISTINCT manager\_id) "Number of Managers" from employees;**
5. Find the difference between the highest and lowest salaries. Label the column **DIFFERENCE. Solution: select MAX(salary) - MIN(salary) DIFFERENCE from employees;**
6. Create a report to display the manager number and the salary of the lowest-paid employee for that manager. Exclude anyone whose manager is not known. Exclude any groups where the minimum salary is $6,000 or less. Sort the output in descending order of salary.
7. Create a query that will display the total number of employees and , of that total, the number of employees hired in 1995, 1996, 1997 and 1998. Create appropriate column headings. ( Hint: This is a cross tab query- look up sum(if).....)

**Example Result Set:**

**+-------+------+------+------+**

**| total | 1995 | 1996 | 1997 |**

**+-------+------+------+------+**

**| 20 | 1 | 2 | 2 |**

**+-------+------+------+------+**

1. Create a matrix query to display the job, the salary for that job based on department number, and the total salary for that job, for departments 20,50, 80 and 90, giving each column an appropriate heading.

**Example Result Set**

**+-------------+---------+---------+---------+-------+**

**| JOB | Dept 20 | Dept 50 | Dept 80 | Total |**

**+-------------+---------+---------+---------+-------+**

**| AC\_ACCOUNT | 0 | 0 | 0 | 8300 |**

**| AC\_MGR | 0 | 0 | 0 | 12000 |**

**| AD\_ASST | 0 | 0 | 0 | 4400 |**

**| AD\_PRES | 0 | 0 | 0 | 24000 |**

**| AD\_VP | 0 | 0 | 0 | 34000 |**

**| IT\_PROG | 0 | 5800 | 0 | 25000 |**

**| MK\_MAN | 13000 | 0 | 0 | 13000 |**

**| MK\_REP | 6000 | 0 | 0 | 6000 |**

**| SA\_MAN | 0 | 0 | 10500 | 10500 |**

**| SA\_REP | 0 | 0 | 26600 | 26600 |**

**| ST\_CLERK | 0 | 9200 | 0 | 11700 |**

**+-------------+---------+---------+---------+-------+**

**11 rows in set (0.00 sec)**