ASSIGNMENT SOLUTION

1. Write a query to find the name (first\_name, last\_name) and the salary of the employees who have a higher salary than the employee whose last\_name='Peter'

Solution.

mysql> SELECT first\_name,last\_name,salary from employees where salary>(Select max(salary) from employees where first\_name='Peter');

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

| first\_name | last\_name | salary |

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

| Steven | King | 24000.00 |

| Neena | Kochhar | 17000.00 |

| Lex | De Haan | 17000.00 |

| Nancy | Greenberg | 12000.00 |

| Den | Raphaely | 11000.00 |

| John | Russell | 14000.00 |

| Karen | Partners | 13500.00 |

| Alberto | Errazuriz | 12000.00 |

| Gerald | Cambrault | 11000.00 |

| Eleni | Zlotkey | 10500.00 |

| Clara | Vishney | 10500.00 |

| Lisa | Ozer | 11500.00 |

| Ellen | Abel | 11000.00 |

| Michael | Hartstein | 13000.00 |

| Shelley | Higgins | 12000.00 |

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2. Write a query to find the name (first\_name, last\_name) and the salary of the employees who have a higher salary than their manager.

Solution:

mysql> SELECT CONCAT(employee.first\_name,' ',employee.last\_name) AS employee\_name,employee.salary,CONCAT(manager.first\_name,' ',manager.last\_name) AS

manager\_name,manager.salary FROM employees AS manager JOIN employees AS employee ON manager.manager\_id = employee.employee\_id WHERE employee.salary >

manager.salary;

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

| employee\_name | salary | manager\_name | salary |

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

| Gerald Cambrault | 11000.00 | Lisa Ozer | 11500.00 |

| Eleni Zlotkey | 10500.00 | Ellen Abel | 11000.00 |

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

3. Write a query to find the name (first\_name, last\_name) of all employees who works in the IT department along with their manager name;

mysql> SELECT CONCAT(employee.first\_name,' ',employee.last\_name) AS employee\_name,CONCAT(manager.first\_name,' ',manager.last\_name) AS manager\_name,departments.department\_name FROM employees AS employee JOIN employees AS manager ON manager.manager\_id = employee.employee\_id join departments ON departments.department\_id=employee.department\_id where departments.department\_name like ('%IT%');

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

| manager\_name | employee\_name | department\_name |

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

| Alexander Hunold | Bruce Ernst | IT |

| Alexander Hunold | David Austin | IT |

| Alexander Hunold | Valli Pataballa | IT |

| Alexander Hunold | Diana Lorentz | IT |

4. Write a query to find the name (first\_name, last\_name), and salary of the employees whose salary is equal to the minimum salary for their job grade.

Solution:

mysql> select concat(first\_name,' ',last\_name) as full\_name,salary from employees where employees.salary = (select min\_salary from jobs where employees.job\_id=jobs.job\_id);

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

| full\_name | salary |

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

| Karen Colmenares | 2500.00 |

| Martha Sullivan | 2500.00 |

| Randall Perkins | 2500.00 |

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

5. Write a query to find the name (first\_name, last\_name), and salary of the employees who earns more than the average salary and works in any of the IT departments.

Solution:

mysql> select concat(a.first\_name,’ ‘,a.last\_name) as full\_name,b.department\_name,a.salary from employees a join departments b on a.department\_id=b.department\_id where b.department\_name like ('%IT%') and a.salary>(SELECT AVG(salary) from employees);

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

| full\_name | department\_name | salary |

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

| Alexander Hunold | IT | 9000.00 |

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

6. Write a query to find the name (first\_name, last\_name), and salary of the employees who earn the same salary as the minimum salary for all departments.

Solution:

mysql> select concat(first\_name,’ ‘,last\_name) as full\_name,job\_id,salary from employees where salary=any(select min(salary) from employees group by department\_id);

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

| full\_name | job\_id | salary |

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

| Neena Kochhar | AD\_VP | 17000.00 |

| Lex De Haan | AD\_VP | 17000.00 |

| Bruce Ernst | IT\_PROG | 6000.00 |

| Diana Lorentz | IT\_PROG | 4200.00 |

| Luis Popp | FI\_ACCOUNT | 6900.00 |

| Karen Colmenares | PU\_CLERK | 2500.00 |

| Shanta Vollman | ST\_MAN | 6500.00 |

| James Marlow | ST\_CLERK | 2500.00 |

| TJ Olson | ST\_CLERK | 2100.00 |

| Joshua Patel | ST\_CLERK | 2500.00 |

| Peter Vargas | ST\_CLERK | 2500.00 |

| Peter Tucker | SA\_REP | 10000.00 |

| Oliver Tuvault | SA\_REP | 7000.00 |

| Janette King | SA\_REP | 10000.00 |

| Sarath Sewall | SA\_REP | 7000.00 |

| Harrison Bloom | SA\_REP | 10000.00 |

| Sundita Kumar | SA\_REP | 6100.00 |

| Kimberely Grant | SA\_REP | 7000.00 |

| Martha Sullivan | SH\_CLERK | 2500.00 |

| Nandita Sarchand | SH\_CLERK | 4200.00 |

| Randall Perkins | SH\_CLERK | 2500.00 |

| Jennifer Whalen | AD\_ASST | 4400.00 |

| Pat Fay | MK\_REP | 6000.00 |

| Susan Mavris | HR\_REP | 6500.00 |

| Hermann Baer | PR\_REP | 10000.00 |

| William Gietz | AC\_ACCOUNT | 8300.00 |

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26 rows in set (0.01 sec)

7. Write a query to find the name (first\_name, last\_name) and salary of the employees who earn a salary that is higher than the salary of all the Shipping Clerk (JOB\_ID = 'SH\_CLERK'). Sort the results of the salary of the lowest to highest.

Solution:

mysql> SELECT first\_name,last\_name,salary from employees where salary>(select max(salary) from employees where job\_id='SH\_CLERK') ORDER BY salary DESC limit 10;

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

| first\_name | last\_name | salary |

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

| Steven | King | 24000.00 |

| Neena | Kochhar | 17000.00 |

| Lex | De Haan | 17000.00 |

| John | Russell | 14000.00 |

| Karen | Partners | 13500.00 |

| Michael | Hartstein | 13000.00 |

| Nancy | Greenberg | 12000.00 |

| Shelley | Higgins | 12000.00 |

| Alberto | Errazuriz | 12000.00 |

| Lisa | Ozer | 11500.00 |

8.Write a query to display the employee ID, first name, last name, salary of all employees whose salary is above average for their departments.

Ans

mysql> SELECT employee\_id,first\_name,last\_name,salary FROM employees WHERE

salary > ANY (SELECT AVG(salary) FROM employees GROUP BY department\_id);

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

| employee\_id | first\_name | last\_name | salary |

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

| 100 | Steven | King | 24000.00 |

| 101 | Neena | Kochhar | 17000.00 |

| 102 | Lex | De Haan | 17000.00 |

| 103 | Alexander | Hunold | 9000.00 |

| 104 | Bruce | Ernst | 6000.00 |

| 105 | David | Austin | 4800.00 |

| 106 | Valli | Pataballa | 4800.00 |

| 107 | Diana | Lorentz | 4200.00 |

| 108 | Nancy | Greenberg | 12000.00 |

| 109 | Daniel | Faviet | 9000.00 |

| 110 | John | Chen | 8200.00 |

9. Write a query to find the 5th maximum salary in the employees table.

Ans.

mysql> select \* from employees ORDER BY salary DESC limit 5,1;

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

| employee\_id | first\_name | last\_name | email | phone\_number | hire\_date | job\_id | salary | commission\_pct | manager\_id | department\_id |

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

| 201 | Michael | Hartstein | MHARTSTE | 515.123.5555 | 1996-02-17 | MK\_MAN | 13000.00 | NULL | 100 | 20 |

|  | |  | |  | |  | |  |  |  |  |  | |  | |  | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

10. Write a query to list the department ID and name of all the departments where no employee is working.

Solution.

mysql> select employees.department\_id,departments.department\_name from employees inner join departments on employees.department\_id=departments.department\_id where employees.employee\_id not in (select employee\_id from job\_history);

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

| department\_id | department\_name |

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

| 20 | Marketing |

| 30 | Purchasing

| 40 | Human Resources |

| 50 | Shipping |

| 50 | Shipping |

| 50 | Shipping |

| 50 | Shipping |

| 50 | Shipping |

| 50 | Shipping |

| 50 | Shipping |

| 50 | Shipping |

| 50 | Shipping |

| 50 | Shipping |

| 50 | Shipping |

| 50 | Shipping |

| 50 | Shipping |