Computer Science 361 – Spring 2014
Assignment #3

(40 points)

Due: Tuesday, 4/01/14 in D2L by 11:30AM

We have used the `Employee` Database for many of our class examples; we will stick with that for this assignment too. Here is the schema again:

```
Emp (eno, ename, bdate, title, salary, supereno, dno)
Proj (pno, pname, budget, dno)
Dept (dno, dname, mgreno)
WorksOn (eno, pno, resp, hours)
```

Provide **SQLite** SQL queries to answer the following questions:

1. For each project, return the project name, and the minimum, maximum, and total hours worked on it by employees. Order this by project name.
2. Return a list of distinct projects, employee names and manager names where the employee has worked more hours on the project than the manager (given in the `resp` attribute) on that project.
3. Return the employees who either manage a department or supervise another employee, but not those who do both.
4. Return the projects that have their department manager working on them or have more than 5 employees working on them (or both).
5. For employees born after December 1, 1970, return the average salary by department where the average is > 50,000.
6. Return the departments that have projects with at least 2 employees with title 'ME' working on them.
7. For each employee, return the total number of hours they have worked.
8. Return the `eno` of all employees who have the same name as someone else in the company.

Submission

Submit an SQLite3 script file called `assign3.sql` to the folder `Assignment 3` on D2L by the deadline specified.

Note:

- At the beginning of this file, provide a comment of the form:
  ```
  -- assign3.sql by XXXXXXXX --
  ```
  where XXXXXXXX is your name.

- That should be followed by 8 SQL queries, with the first query solving the first problem, the second query solving the second problem, etc. None of the queries

should cause an SQL syntax error. If any of them do, you will be penalized an extra point on that query - that is, you will get -1 instead of zero. To make sure that none of your queries do cause a syntax error, test your file the way that I will, by typing "`.read assign3.sql`" at SQLite3's command prompt.

- If there is a problem for which you do not have a query that solves it, put the following comment into the `assign3.sql` file, at the point where the query for that problem's solution should have appeared.

  ```
  -- No solution for problem X --
  ```

  where `X` is the problem number. Forgetting to do this for a problem for which you do not have a query will result in your being penalized an extra point on that query - that is, you will get -1 instead of zero.

- Finally precede every actual query in your `assign3.sql` file by a comment of the form:

  ```
  -- Query for problem X --
  ```

  where `X` is the problem number.

- **Little partial credit will be given, so be very careful in making sure that your queries return the correct set of tuples.**