SQL Views Lab - review

Using the “small” courses data (read the files `courses-ddl.sql` and `courses-small.sql`)

1. In SQLite, define the ‘faculty’ view covered in lecture:

```
create view faculty as
select ID, name, dept_name
  from instructor;
```

   Examine the contents of the faculty view using `select * from faculty limit 10;`.

2. Define a view that gives the highest salary in each department. Name the view ‘max_dept_salary’. It should have fields ‘dept_name’ and ‘max_salary’.

```
create view max_dept_salary as
select dept_name, max(salary) as max_salary
  from instructor
 group by dept_name;
```

3. Use the max_dept_salary view to find the average salary among the instructors who are the most highly paid in their departments.

```
select avg(max_salary) from max_dept_salary;
```

4. Define an avg_dept_salary view and use it to define a query showing all instructors whose salary is greater than the average salary within their own department.

```
create view avg_dept_salary as
select dept_name, avg(salary) as avg_salary
  from instructor
group by dept_name;
```

```
select name, salary
  from instructor natural join avg_dept_salary
 where salary > avg_salary;
```

5. Delete the max_dept_salary view. Hint: to delete a table, you write ‘drop table <table_name>;’.

If you still have lab time, work on the following problems: