Instructions: This problem set asks you to develop five “interesting” and “relevant” analytical queries for your final project. A query is considered “interesting” if it is non-trivial and involves gaining insights into the data associated with your project. A query is considered “relevant” if it would be used as part of the user-interface in some way. Note that you are not committing to using the queries below within your project, however, you can as part of the analytics support you must provide if you wish. The purpose of the exercises below are just to help get you thinking more about using SQL for analytics. See below for specifics for each question. Be sure your answers are legible. Note that each question is worth 2 points (for a total of 10 points).

1. Develop an interesting and relevant query that involves an outer join (left, right, or full) for your final project. Explain why the query is interesting and relevant to your project.

2. Develop an interesting and relevant query that involves the UNION set operation for your final project. Explain why the query is interesting and relevant to your project.

3. Develop an interesting and relevant query that involves a CASE statement for your final project. Explain why the query is interesting and relevant to your project.

4. Develop an interesting and relevant query that involves a window function for your final project. Explain why the query is interesting and relevant to your project.

5. Develop an interesting and relevant query that involves either a WITH (CTE) query or the creation of a view for your final project. Explain why the query/view is interesting and relevant to your project.