**PROJECT SPECIFICATION**

**Investigate a Relational Database**

Queries

| CRITERIA | MEETS SPECIFICATIONS |
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| The student can write error-free SQL queries. | All SQL queries run without errors and produce the intended results. |
| The student can use JOINs correctly in SQL queries. | Each SQL query needs to include one or more explicit JOINs. The JOIN or JOINs should be necessary to the query.  If a question does not require a JOIN please change the question to be one that does. |
| The student can use aggregations correctly in SQL queries. | Each SQL query needs to include one or more aggregations. This could be a COUNT, AVG, SUM, or other aggregation. |
| The student can use subqueries and Common Table Expressions. | At least 2 of the 4 SQL queries need to include either a subquery OR a CTE. |
| The student can use Window Functions. | At least 1 of the 4 queries should use a Window Function. |
| The SQL queries are well formatted. | The SQL queries are well formatted and use aliases. |

Presentation

| CRITERIA | MEETS SPECIFICATIONS |
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| The student’s slides are organized well and are easy to read and understand. | Each slide should have a question and an appropriate visualization descriptions to address the question. The slides should be free of significant factual, spelling and grammatical mistakes. |
| The student can create data visualizations that provide useful information. | All visualizations should make logical sense and provide accurate analysis based on their query results. |
| The student can format data visualizations clearly and make good use of labeling. | 1. All visualizations include a title and axis labels, have a legend where applicable, and are easily understood. 2. Every visualization should have:    * chart title    * x axis title    * x axis label    * y axis title    * y axis labels |

**Suggestions to Make Your Project Stand Out!**

**Submission Phase**  
*Reviewer Tips*

1. Even if the student does not upload the correct file types please try and open what they have submitted and give them as much feedback as possible. Please include a screenshot of how to save to .txt if the student saves the queries as a different file type not do this correctly.
2. Look for interesting patterns and insights in the data rather than simply providing summary statistics.
   * Use other advanced SQL functions, such as the CASE function, DATE functions; as well as other SQL data cleaning functions, such as the CONCAT function.
   * Use a combination of Window functions, CTE and/or subqueries in your SQL queries.
   * Make good use of color, size, and shape in your visualizations.
   * Use the slide title and/or chart description on each slide to state the key insight of the visualization.