

**Instructions:**

Evaluate the homework against the outlined criteria in the below rubric, assigning a rating to each criterion. Add points earned across all criteria and convert the total points to a letter grade, assigning a “+” or “-” letter grade designation at your discretion.

A (+/-)	35+	C (+/-)	20-29	F (+/-)	<10
B (+/-)	30-34	D (+/-)	10-19		

**Notes:**

The deployed assignment utilizes **SQL** to complete the challenge. The source code should also be deployed to **Github** or **Gitlab**.

**Rubric for Employee Database: A Mystery in Two Parts:**

	<b>Mastery 20 points</b>	<b>Approaching Mastery 15 points</b>	<b>Progressing 10 points</b>	<b>Emerging 5-0 points</b>	<b>Incomplete</b>
<b>Data Engineering</b>	<p>All table schemas should run without error, and the Entity Relationship Diagram should include all correct tables. In addition, both the ERD and table schemas should have the following:</p> <ul style="list-style-type: none"> <li>✓ All required columns</li> <li>✓ Columns are set to the correct data type</li> <li>✓ Primary Keys set for each table</li> <li>✓ Tables are correctly related using Foreign Keys</li> </ul>	<p>4-5 table schemas should run without error, and the Entity Relationship Diagram should include all correct tables. In addition, both the ERD and table schemas should have 3 of the following:</p> <ul style="list-style-type: none"> <li>✓ All required columns</li> <li>✓ Columns are set to the correct data type</li> <li>✓ Primary Keys set for each table</li> <li>✓ Correctly references related tables.</li> <li>✓ Correctly uses <code>NOT NULL</code> condition on necessary columns</li> </ul>	<p>2-3 table schemas should run without error, and the Entity Relationship Diagram may omit tables. In addition, both the ERD and table schemas should have at least two of the following:</p> <ul style="list-style-type: none"> <li>✓ All required columns</li> <li>✓ Columns are set to the correct data type</li> <li>✓ Primary key for each table</li> <li>✓ Correctly references related tables using Foreign Keys</li> <li>✓ Correctly uses <code>NOT NULL</code> condition on necessary columns</li> </ul>	<p>1 table schema should run without error, and the Entity Relationship Diagram may omit tables, but must include at least one of the following:</p> <ul style="list-style-type: none"> <li>✓ Each table has the correct column names</li> <li>✓ Each table has the correct corresponding data types</li> <li>✓ Primary Keys set for each table</li> <li>✓ Tables are correctly related using Foreign Keys</li> <li>✓ Correctly uses <code>NOT NULL</code> condition on necessary columns</li> </ul> <p>-OR-</p> <ul style="list-style-type: none"> <li>✓ No Entity Relationship Diagram is included or no table schemas provided.</li> </ul>	<p>No submission was received</p> <p>-OR-</p> <p>Submission was empty or blank</p> <p>-OR-</p> <p>Submission contains evidence of academic dishonesty</p>
<b>Data Analysis</b>	<p>Queries provided for all questions and:</p> <ul style="list-style-type: none"> <li>✓ All queries provide the expected results</li> <li>✓ All queries run without error</li> </ul>	<p>Queries provided for all questions but:</p> <ul style="list-style-type: none"> <li>✓ Queries provide the expected results, with non-efficient code.</li> </ul> <p>-OR-</p> <ul style="list-style-type: none"> <li>✓ 1-2 queries do not provide the</li> </ul>	<ul style="list-style-type: none"> <li>✓ Queries not provided for all of the questions</li> </ul> <p>-AND-</p> <ul style="list-style-type: none"> <li>✓ 3 queries do not provide the expected result (including errors)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Queries not provided for all of the questions</li> </ul> <p>-AND-</p> <ul style="list-style-type: none"> <li>✓ 4 or more do not provide the expected result (including errors)</li> </ul>	

		expected result (including errors)		-OR- ✓ No queries provided	
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**Bonus**

	Mastery 10 points	Approaching Mastery 5 points	Emerging 0 points
Bonus	<p>The bonus does all of the following:</p> <ul style="list-style-type: none"> <li>✓ Correctly queries tables from the postgres database into pandas dataframes</li> <li>✓ Replaces null values</li> <li>✓ Generates an average salary bar chart from a pandas dataframe</li> <li>✓ Plot has titles and axes labels</li> </ul>	<p>The bonus does 3 of the following:</p> <ul style="list-style-type: none"> <li>✓ Correctly queries tables from the postgres database into pandas dataframes</li> <li>✓ Replaces null values</li> <li>✓ Generates an average salary bar chart from a pandas dataframe</li> <li>✓ Plot has titles and axes labels</li> </ul>	<p>The bonus does 2 or fewer of the following:</p> <ul style="list-style-type: none"> <li>✓ Correctly queries tables from the postgres database into pandas dataframes</li> <li>✓ Replaces null values</li> <li>✓ Generates an average salary bar chart from a pandas dataframe</li> <li>✓ Plot has titles and axes labels</li> </ul> <p>-OR-</p> <ul style="list-style-type: none"> <li>✓ Bonus not completed</li> </ul> <p>-OR-</p> <ul style="list-style-type: none"> <li>✓ Failed to generate plot</li> </ul>