DAD 220 Module Five Activity Template

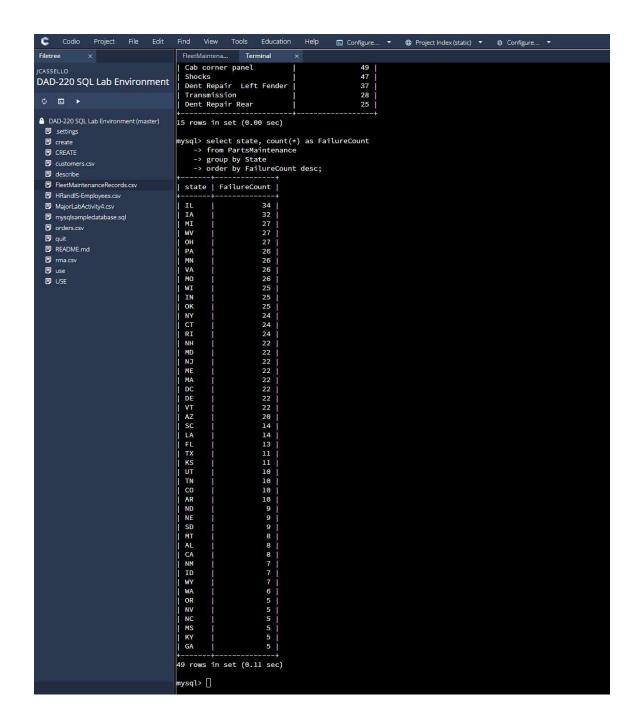
Complete these steps as you work through the directions for this activity. Refer to the guidelines and rubric for help with how to complete these steps. Rename this template by adding your last name to the file name. Replace the bracketed text in the template with your responses and supporting screenshots as you complete the activity. Size each screenshot and its explanation to fit approximately one-quarter of the page. Review the Template Screenshot Example linked in the guidelines and rubric for this assignment to see how screenshots for your assignment should look. Submit the completed template for grading and feedback.

- Analyze the data provided in FleetMaintenanceRecords to identify themes.
 - Review part-replacement frequencies and types. Then create a hypothesis that the fleet management team can use to better handle maintenance.
 - Create a table called Parts Maintenance. Put this table in the database named after yourself.
 - Load the data set from the '/home/codio/workspace' path and run queries to find the results. You should use the following line terminators when importing: \r\n.
 - Answer the following questions and provide supporting screenshots.
 - Which parts are being replaced most often?
- Fule tanks have been replaced the most with 95.



- Which region or regions of the country experience more part failures and replacements than others?
 - Identify the region or regions with more reasons for the replacement of parts.
 - Use the Region Definitions sheet to identify states in each region.

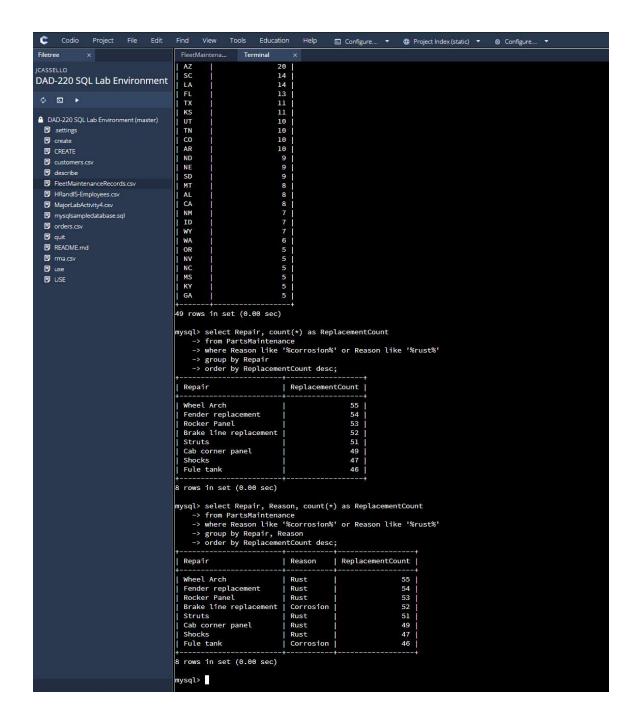
⁻The MidWest region experiences more part failures and replacements than any other region.



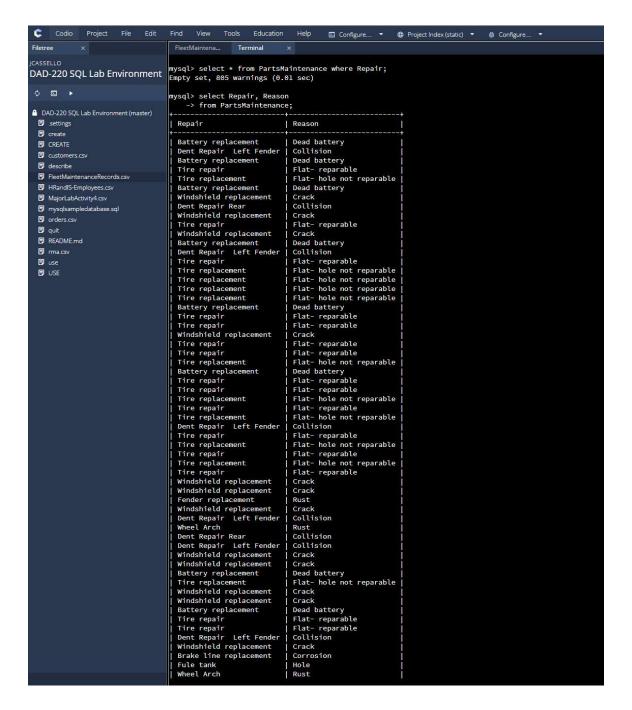
- How might the fleet maintenance team use the information to update its maintenance schedule?
- The fleet maintenance team can use this information to update its maintenance schedule by prioritizing resources and scheduling preventive maintenance activies in regions with

higher part failure rates, such as the Midwest. By focusing more on these regions, they can be more effecient and proactive with addressing issues.

- Which parts are being replaced most often due to corrosion or rust?
- Wheel Archs, fenders and rocker panels are replaced most often due to rust.
- Brake lines and fule tanks are replaced more often due to corrosion.



- Which parts are being replaced most often because of mechanical failure or an accident like a flat tire or rock through the windshield?
- The parts being replaced most often are tire repairs, tire replacements, and windshield replacements.



- Write a brief summary of your analysis that takes the information from step one and presents it in a way that nontechnical stakeholders can understand. Write your response in paragraph form.
- After delving into the fleet maintenance records, there are some interesting trends that are worth noting. Across the different U.S. regions, the Midwest is facing the most part failures and replacements, closely followed by the Northeast. In my research, I found that tire replacements and windshield replacements are the top

reasons for part replacements. It appears to me that the majority of problems could be avoided with better maintenance planning, and allocating more staff and resources to the more impacted regions of the country, which could save time and money.

- Outline the approach that you took to conduct the analysis.
 - What queries did you use to identify trends or themes in the data?
 - One of the queries I used helped me figure out which parts are getting replaced the most often. Another one grouped the data by the reasons for these replacements, so I could see the reason in which stuff was breaking down. Also, I utilized queries to analyze which regions had the most maintenance needs. These queries helped me in uncovering patterns and trends with the dataset, facilitating a deeper understanding of maintenance requirements and guiding a more proactive process for stakeholders.
 - What are the benefits of using these queries to retrieve the information in a way that allows you to provide valuable information to your stakeholders?
 - Using queries is beneficial because it helped me understand what is
 happening in the fleet maintenance records in a more efficient way. By
 analyzing the data, I was able to identify which parts are causing the most
 trouble and the reason for why they are failing. This information is valuable
 because it allows the stakeholders to make more informed decisions about
 maintenance schedules and resource allocation. By using queries, the fleet is
 able to keep running smoothly, which reduces unforseen problems and saves
 time and money.
- **Explain** how the **functions in** the **analysis tool** (MySQL) allowed you to organize the data and retrieve records quickly.
- By using MySQL functions, it allowed me to have efficient organization and retrieval
 of data. These functions provided a structured approach to querying databases,
 enabling me to specify exactly what information I needed. The structured querying
 process helps to quicly locate relevant data without having to sift through unecessary
 information, which saves times and productivity. Overall, the MySQL functions
 streamline the data analysis process by allowing for fast retrieval of records through
 the use of queries.