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DAD-220

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# DAD 220 Analysis and Summary Template

Replace the bracketed text in this template with your responses to the Module Five Activity for submission, grading, and feedback. Rename this document by adding your last name to the file name before you submit.

1. **Analyze the data** you’ve been provided with to **identify themes**:
   1. Which parts are being replaced most?
      1. *‘Fule Tanks’ are the most replaced parts at 95 replacements.*
   2. Is there a region of the country that experiences more part failures and replacements than others?
      1. Identify region:
         1. *The midwest region had the most repairs at 260 total.*
      2. How might the fleet maintenance team use the information to update its maintenance schedule?
         1. *The maintenance team could use this information to preemptively do fuel tank maintenance or upkeep in the midwest to help save on repairs.*
   3. Which parts are being replaced most due to corrosion or rust?
      1. *The parts corroding the most are brake lines (52)and fuel tanks(46). The parts being replaced due to rust the most are the wheel arch(55) and fenders(54)*
   4. Which parts are being replaced most because of mechanical failure or accident, like a flat tire or rock through the windshield?
      1. *Dead batteries are the biggest mechanical failure being seen at 56 occurences, with only 28 Transmission issues. Windshields were replaced 63 times from cracks and there were 140 tires replaced or repaired.*
2. **Write a brief summary of your analysis** using nontechnical language**.**
   1. *Looking over the data compiled from the database, it seems that there are some easy mitigation steps that can be taken to help the maintenance teams be better prepared. Specifically, in the Midwest, maintenance teams can take this information to begin implementing fuel tank upkeep as a weekly task. With corroding brake lines being a rising issue, it would be good to check these lines weekly when working on the fuel tanks. Some type of rust prevention measures could possibly taken while working on upkeep, maybe just a common spray down of the wheel arch’s and fenders. Dead batteries can also be battled by carrying extra batteries in vehicles to prevent the need for roadside assistance, along with a tire patch kit in case of a flat. Taking these steps could help save money on repairs and maintenance upkeep.*
3. **Outline the approach** that you took to conduct the analysis.
   1. What queries did you use to identify trends or themes in the data?
      1. *The most beneficial query that I used to conduct my search was a ‘SELECT colA, COUNT(colA), colB, COUNT(colB) FROM Parts\_Maintenance GROUP BY colA,colB’ . This allowed me to view the necessary data easily and know exactly how many times the occurences appeared in the query.*

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?

* + 1. *Using these queries allows the user to clearly read the output of MySQL. Having the necessary information side-by-side allows the user to make quick assertations as to what the data could mean.*

1. Lastly, **identify how the functions in the analysis tool** allowed you to organize the data and retrieve records quickly so that they demonstrated what you wanted.
   1. *Codio functions allow for the user to organize data from a database, however the user desires. Using functions like ORDER BY or GROUP BY, allows the end user to choose how the columns requested are displayed. A quick command can retrieve thousands of files quickly and organize them into a comprehensive view that is chosen by the user.*