

Project Task 1

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DSC640-T301 Data Presentation & Visualization (2227-1)

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June 19, 2022

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Dashboard

Due to the media frenzy surrounding air travel safety concerns, I created a dashboard to present to our data science management team and other internal stakeholders at Wolf Airlines. To build this PowerBI dashboard, I compiled data from a variety of resources. The first dataset is “Accidents and fatalities per year” courtesy of the Aviation Safety Network. The second dataset comes from the National Center for Statistics and Analysis NHTSA crash statistics. The final dataset titled “Plane crashes in USA” from Kaggle providing us with supplemental data for the project.

Visualization Selection

I carefully crafted each visualization for maximum impact and ease of audience comprehension. The first visualization on the dashboard is titled “Airplane Accidents by Year.” This line chart shows the trend in the number of airplane accidents since 1946. I leveraged the color orange for the bold line because orange makes viewers think of safety and caution, such as the orange cones one would see in a construction site. I believe this theme matches with the downward trend, suggesting greater safety precautions. The second line chart titled “Airplane Accident Fatalities by Year” shows a similar trend to the first, focusing on fatalities. Due to the data centering on death, I utilized a black line.

The dashboard also includes four bar charts. I utilized yellow in the first chart to remind the audience of yield signs because the chart demonstrates the flight phases when the most airplane accidents occur. The second visualization shows airplane accidents by engine type; therefore, I colored the bars a metal silver. For the final two bar charts, I included a red color to remind viewers of danger and provoke a feeling of negativity.

Presentation of Findings

I plan to use the dashboard to communicate to the team that air travel is safer than ever, even in comparison to other modes of transportation. In fact, downward trends can be observed in both

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number of accidents and number of fatalities. I will also highlight how our specific airline promotes safety through our choice of engine, jet models, and focus on specific flight phases.

Ethical Considerations

As a data science best practice, ethical considerations must be taken when working through a project. For this specific project, the data must not mislead audiences. Take for instance, the 2020 Transportation Fatalities visualization. This chart shows that there were significantly more accidents by motor vehicle than by airplane in 2020. However, this may not provide the whole picture. The timeline was selected because this was the most recent data available. However, we know that the COVID-19 pandemic occurred during this time impacting people's travel habits.

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References

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