This repository contains phase 1 project files

Elky-bett second commit b881513 · 14 minutes ago

Data	second commit	14 minutes ago
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Presentation_Aviation.pdf	second commit	14 minutes ago
Presentation_Aviation.pptx	second commit	14 minutes ago
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README

Project Title

Aviation Incident Analysis: Key Insights for Safer Operations

Overview

In this project I will analyze accident data to identify low-risk aircraft types and provide business recommendations that guide investment decisions. This will provide the organization and investors with information to enter the aviation industry.

Data Understanding and Analysis

Data Preparation- Exploratory data analysis

```
- Deleted one column
- Deleted duplicate data
- new index set
- renamed 4 columns
- changed crush_date and fatalities column datatypes
```

Data analysis

The data anysis used comprised the fo

- Column Chart of Top 5 Most Common Aircraft Types
- Column Chart of Fatalities by Operator
- Bar Chart of Damage Classification Distribution

Data visualization

The following visualizations were done: - Barchart of top 5 Most Common Aircraft Types - Bar chart of fatalities by Operator - line chart of accident frequency overtime - damage clasification distribution - Fatal vs. non-fatal accidents - Top accident locations

Conclusion

```
- The top 5 most common aircraft types dominate the dataset, suggesting that incident
reporting is concentrated among widely used models.
- A small number of operators account for disproportionately high fatalities
- The majority of incidents fall under Write-Off and Substantial damage categories, while
Minor and No Damage are relatively rare. The presence of missing/unknown entries highlights
gaps in reporting consistency and data quality.
```

Recommendations

```
- There is need for deeper analysis on the top 5 aircraft types to identify whether their
high incident counts are purely due to usage volume or linked to specific safety
vulnerabilities.
- Strengthen reporting standards to minimize “Unknown” or “Missing” classifications.
```

Releases

No releases published

Create a new release

Packages

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