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Course Name: DSC5640-T301 Data Presentation and Visualization (2227-1)

Assignment: Term Project Milestone 2 (Week 3&4)

Instructor: Dr Catherine Williams

Due Date: 07/03/2022

**Milestone 2: Airline Safety and Improvement – Executive Summary**

## **What you did and why you made the decisions you did – why did you choose the visualizations you did?**

* **Slide 2 - Summary**

Created and posted the dashboard picture to give an overall idea to executive about the content of the deck.

Mentioned the summary about each slide present in the power point document

* **Slide 3 & 4 – Chart showing total passenger airline accidents and fatalities over year**

Here, I have used continuous bar and line charts to show the total number of airline accidents and fatalities since 1945. I could see trend is decreasing for increase in years.

* **Slide 5 - Chart showing auto accidents and fatalities over year**

For this, I have created stacked bar chart to show the total number of auto accidents and fatalities for past 2 decades. The trend shows the count is gradually increasing over time.

* **Slide 6 & 7 - Chart showing total available seat and passenger enplanement**

I have created vertical stacked bar chart to show the total available seat per miles for several airlines operated in US. The trend shows the values increase over the time. There is a drop for 2020 due to Covid impact

Then I created bar chart to show number of passengers travelled in United Airlines for the past decade which shows the trend is gradually increasing.

* **Slide 8 & 9 - Chart showing airline revenue over year and United Airlines revenue and expense for past decade**

In slide 8, I have created area chart to showcase total airlines revenue for past 3 decade. The chart tells the revenue increase for increase in year which implies that people prefer to travel in airlines year over year.

In slide 9, I have created combined bar and line chart to show United airlines revenue and operating expenses. The chart shows both revenue and expense increase over the time. The drop in revenue for 2020 is due to airline restriction imposed due to Covid

* **Slide 10 - Chart showing airline operating expense over year**

I have used step chart to show the operating expense over the year since 1975. The operating expense for the airlines increases over the time which has a direct impact on income of the company.

* **Slide 11 – Recommendation**

I have summarized all the charts together and provide some recommendations for the executive person to make decision.

## **What is your plan to present to the executive committee?**

My presentation is going to focus on the below areas for the executive committee.

* + Media spreading rumors about airline safety versus data statistics
  + People’s preference for the mode of travels
  + Airline Revenue and impact due to Covid
  + Operating expenses of the airlines and recommendation to reduce
  + Legal and ethical disclaimers

## **What were your overall findings?**

Following are my finding in this analysis.

* Airline reported Accidents and Fatality (worldwide) was very less and not comparable than the total number of ground accidents and fatalities reported in USA alone
* Management needs to focus on controlling the operating expenses by promoting some automations
* As Covid restriction eases, the people willing to travel surges. So, management should focus on increasing the fleet capacity for 2022 and 2023 incurred during covid
* Management can attract more passengers by providing some offers and compliments

## **What ethical considerations came up when presenting to this audience or while you were doing your research?**

Below are ethical considerations that I came up while doing my research

* No Personal Identifiable Information (PII) and confidential data are used for Analysis
* The data considered for the analysis are shared by government for public benefits
* All data sets are extracted from public websites. The data source used for each chart has been mentioned in the respective slide (below the chart)
* There is no restriction to use this data for Analysis and Academic purpose
* Only relevant information required for this analysis is considered