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Course: DSC640-T301 Data Presentation & Visualization

Assignment: Project Task 2 – Design Methodology

1. Overall design choices:
 - a. I brought a new windows laptop to understand the use of Power-Bi. For first few visualizations I felt some difficulties but letter on it becomes too easy.
 - b. Dataset used airline-safety.csv downloaded from Github (Mehta, 2018)
 - c. Color palettes used:
 - i. Blue = departures
 - ii. Red = fatalities accidents
 - iii. Brown, Orange = incidents
 - iv. Green = revenue
2. Line chart – US Airline Departures by Year:
 - a. Data came from Traffic_&_Capacity_US_airlines dataset (U.S. Airline Traffic and Capacity, n.d.)
 - b. Created the line chart to show the trends of departures by years.
 - c. Used the format to updated the title size and name from PowerBI default.
 - d. Decided to go with a light/medium shade of blue for US departures.
3. Line chart – World Airline Departures by Year:
 - a. Data came from Traffic_and_Operations__1929-Present_World_airlines dataset (World Airlines Traffic and Capacity, n.d.).
 - b. Created the line chart to show the trends of departures by years.
 - c. Used the format to updated the title size and name from PowerBI default.
 - d. Went with a medium/dark shade of blue for world departures to differentiate from US.
4. Clustered bar chart – Total Fatal Accidents by Airline (1985-2014):
 - a. Used main dataset (airline-safety).
 - b. Updated title, axis, and legend names.
 - c. Went with red palette for fatalities with lighter shade for 2000-2014 and a darker by eye-catching shade for 1985-1999. Reasoning for this was 85-99 had a higher rate of fatal accidents and I wanted to call attention to it from first glance. Red made sense since this is a really bad thing.
5. Clustered bar chart – Total Incidents by Airline (1985-2014):
 - a. Used main dataset(airline-safety).
 - b. Updated title, axis, and legend names.
 - c. Used a brown palette for this one to mimic a caution alert. Used lighter orange for 00-14 since the totals were smaller and used darker orange to highlight 85-99 since those numbers were higher.
6. Line chart – US Airlines Net Profit by Year:
 - a. Used data from Financials_Full_Data_data_US_airlines – US Passenger Airlines (Annual Financial Results: U.S. Passenger Airlines, n.d.).
 - b. Used line chart again for the trend across years.

- c. Updated title from Power BI default.
 - d. Used a green palette for revenue but used a light/medium shade for US net revenue.
- 7. Line chart – World Airlines Net Profit by Year:
 - a. Used data from Annual Financial Results: Financial_Results__1947-Present_data_world_airlines
 - b. Used line chart for the trend across years.
 - c. Went with a medium/dark shade of green to differentiate from the US.
 - d. Updated title size and name from PowerBI default.

GitHub location-

<https://github.com/dhirajbankar/DSC640.git>