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Assignment: **4.2 Portfolio Milestone 1**

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Below are the lists of the project I will be putting into my portfolio.

1. **Airline Fatality Dashboard**

Dashboard showcasing the fictitious airline called Montego Airline to showcase and internal dashboard that has the latest fatalities trends within airline traffic from 2004-2021. Trends included within the dashboard include Total Airline Incidents, Total Airline Fatalities and Total Airline Fatal Accidents from 2000-2014. Also included, Accident by Continent, available seats flown, expense and profit over time.

1. **Austin Housing Market Prediction Analysis**

Our goal was to accurately predict the prices of homes in the Austin market for families and individuals coming to work in the rapidly growing area. Using data from Zillow.com we performed an EDA and built several models with increasing accuracy.

1. **Hurricane/Storm Analysis to Predict Deaths and Storm Strength (part of 680 project)**

Using NOAA data from 1950 to 2018 to perform Exploratory Data Analysis (EDA) to determine the impact of hurricanes on United States citizens. The analysis looks at number of deaths, reconstruction cost and total economic damage hurricanes cause. The case study contains visuals of bar chats and correlation charts. Three different predictive models were used to increase the accuracy of the model.

1. **Case Study on Formula 1 International Racing Analysis**

A case study on exploratory data analysis (EDA) and coding of bring together different types of data sets to perform the analysis of what it takes to win in Formula 1 racing. Includes merging of driver information data, racing tracks information, with manufactory data and various complex data transformation to complete the analysis.

1. **Case Study of Airbnb Host compared to Super Host Title**

Airbnb is a vacation rental online marketplace company headquartered in San Francisco, California. The company itself does not own any of the rental properties that are posted on its site. It provides a market place for individuals with properties to find short term tenants. This analysis was done to better understand the title of Super Host compared to Host on Airbnb site and if it led to higher profits.

1. **Case Study on Citi Bike Ride Sharing (part of 680 project)**

Bike sharing and usage has increase in the last few years. It is projected to grow. Using Citi Bike data from New York City to perform exploratory data analysis. After EDA model creation was generated using different models to see which one returns the best results.

1. **Preowned Vehicle Price Analysis and Prediction (part of 680 project)**

As use car prices have gone up due to shortage of new cars, reduce level of public transportation due to COVID-19. This has caused an increase in used/pre-owned vehicles. This analysis and prediction take a look at Craig’s List (craigslist.org) data of preowned vehicles to determine if prices are increasing for all cars or just certain makes, models or years.

1. **Credit Risk Classification Model**

Lending institution have a basic need to be able to accurately determine the riskiness of the individuals applying for a loan. In this analysis I used data from Kaggle to with features provided for each debtor to determine the risk applied to them.

1. **Case Study on Determining Factors in Car Accident**

This case study surrounded analysis performed on car accident data to determine some of the factors that caused the most amounts of accidents. Using R to perform the analysis to determine common factors like time of day, street type (surface street, interstates, or state routes), traffic controls and points of interest, using logistics regression to determine the severity of accidents from contributing factors like weather, street type, time of day and traffic controls.

1. **Dodgers Marketing Promotion Utilizing Regression**

A coding assignment that assisted in helping MLB Los Angeles Dodgers in discovering the best day of the week and promotion (give away) to increase attendance. Different types of charts including boxplots, scatter plots, correlation chart and bar charts were employed for graphical data exploration. After EDA a Regression model was utilized to determine the day of the week and which promotion to be used to increase attendance.