



TASK

Exploratory Data Analysis on the Automobile Data Set

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Introduction

Summary of the data set

DATA CLEANING

We didn't too much to do as we had a good data set to work with.

We have a few missing values in the "culmen_length_mm", "culmen_depth_mm", "flipper_length_mm", "body_mass_g" Columns we can replace all the null values with 0 to be able to use them as a full Data set.

DATA STORIES AND VISUALIZATIONS

Analysis of the data set provides:

Population of penguins by gender on each island:

From the three Graphs below we can see that not only does the island "Torgensen" have only "Adelie" penguins staying there the amount of Adelie penguins compared to our other two species especially Gentoo penguins are a lot more. This could mean that Adelie penguins prefer to live in smaller colonies or the amount of resources on the island Torgensen is only enough to sustain this amount of Adelie Penguins. We also see That Adleie penguins do share their island on the other two islands "Biscoe" and "Dream". On the Island Biscoe they are are heavily outnumbered and this could contribute to the numbers that can happily live there as they are competing with another species for resources. On the Island Dream we can see that there are Adelie and Chinstrap Penguins on the island similar in colony size and also the number of Males to Females are quite similar in both Colonies. This is Great as it shows that the two species can coincide on the same island.

Analysis on structure of penguins:

Firstly it is interesting to see that Gentoo's are all only in one location and they are a large colony outnumbering their co inhabitants of the Adelie species by about 70%. let's take a closer look at each species size. as this could be a big factor in why a certain species could dominate in numbers.

Physical Characteristics:

Gentoo Penguins are quite a bit heavier than the Adelie Penguins. This can contribute to the fact that they are much more prominent on this specific Island. Let's take a look at some interesting facts about the Penguin Species like their Physical Characteristics.

Conclusions:

Adelie lives in all three islands whereas Gentoo lives on the island Biscoe and Chinstrap prefers the island Torgersen.

Most of Gentoo has unique flipper length, body mass, Culmen depth

Most of Adelie Culmen length is less than 40mm

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