# DataViz Midterm

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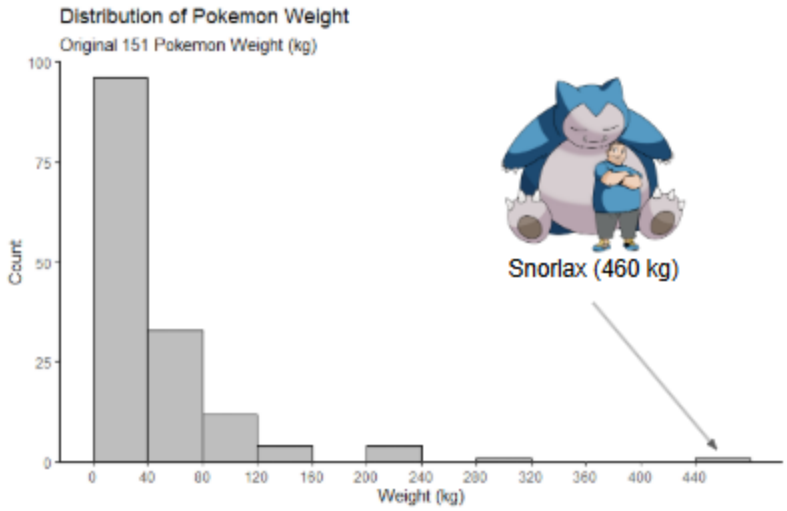
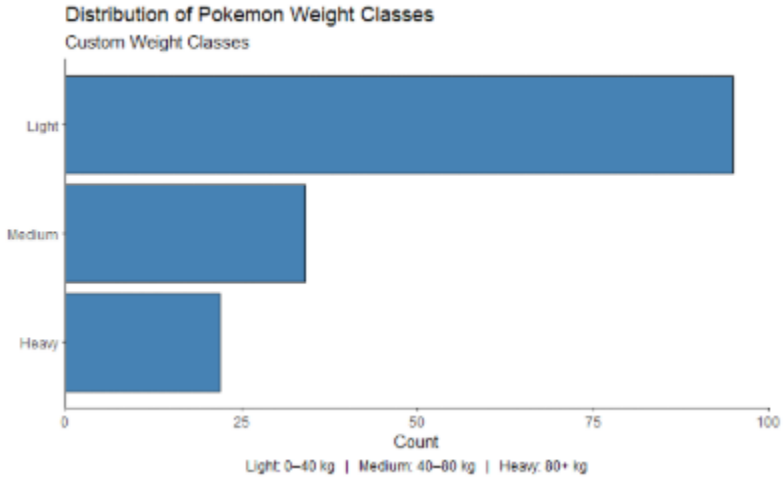
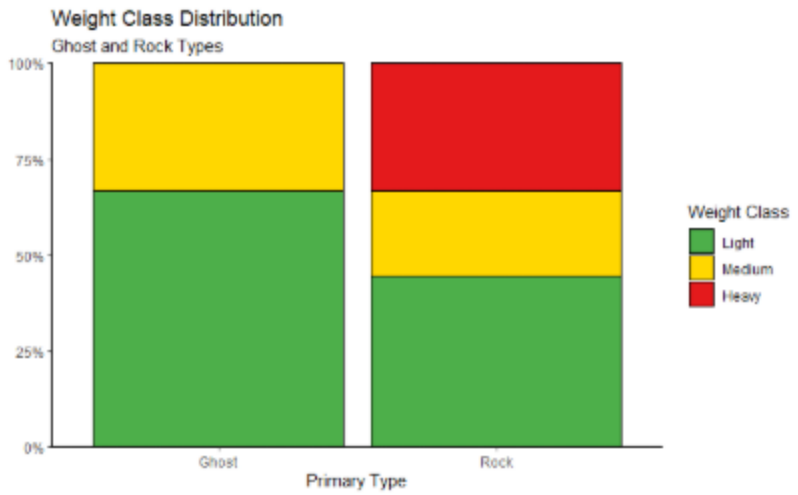


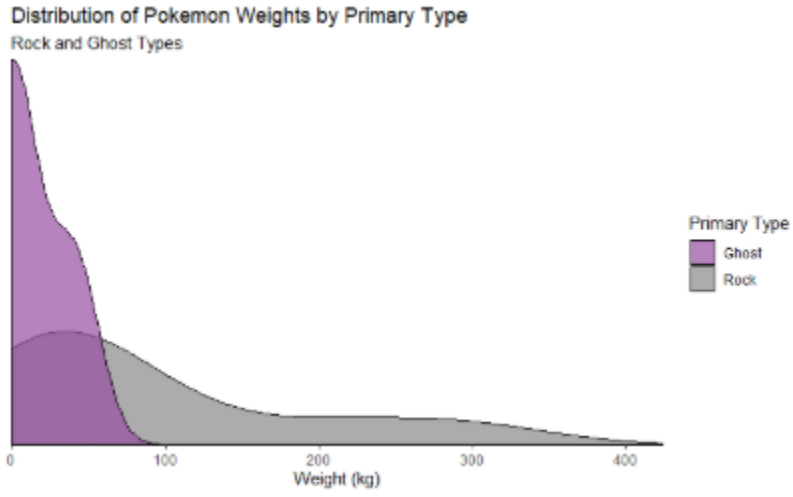

The distribution of Pokémon weights is strongly right-skewed. The center of the distribution is best represented by the median value of 30.00 kg (mean 45.95 kg). The spread of this distribution, as defined by the interquartile range (IQR) representing the range of the middle 50%, is 46.35 kg (from 9.90 kg to 56.25 kg). There are several extreme outliers with very high weights with the maximum reaching up to 460.00 kg.



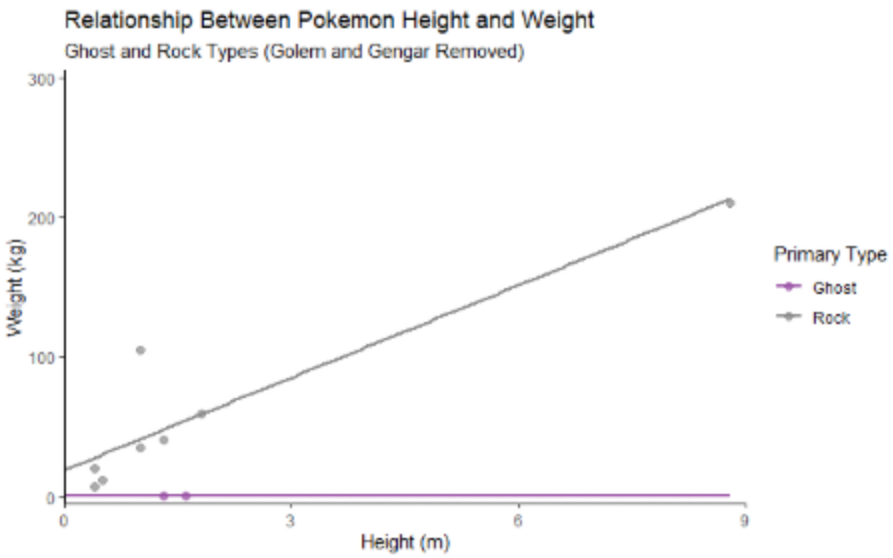

There are a total of 3 different weight classes for Pokémon in this dataset. The most common weight class is Light, making up the majority with 95 Pokémon. The least common weight class is Heavy, with only 22 Pokémon.



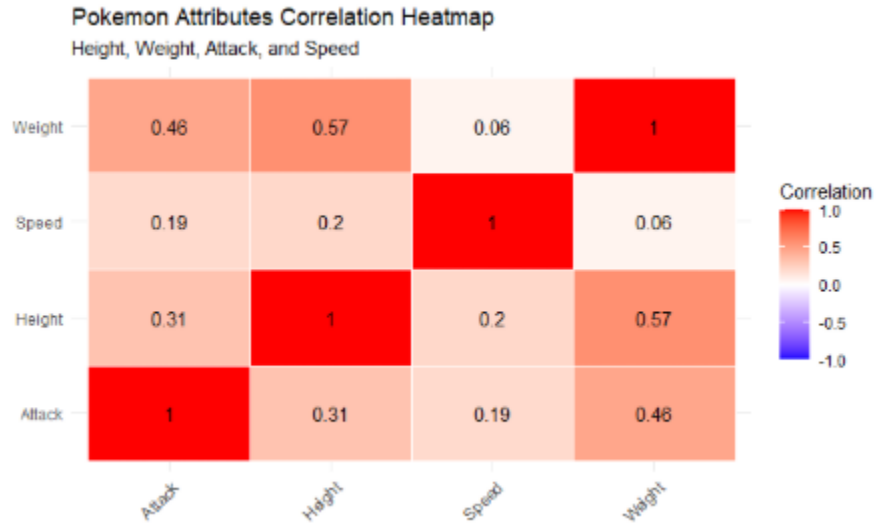

This chart shows the distribution of weight classes for Pokémon with Ghost and Rock as their primary types. Among Ghost-type Pokémon, the most common weight class is Light, making up 66% of the group, while the remaining 33% are Medium. There are no Heavy-class Ghost-type Pokémon. In contrast, Rock-type Pokémon are more evenly spread across all three weight classes. For Rock-type Pokémon, approximately 42% are Light, 25% are Medium, and 33% are Heavy.




This chart displays the distribution of Pokémon weights for Rock and Ghost primary types. Ghost-type Pokémon tend to be significantly lighter, with a mean weight of 13.57 kg and a median of just 0.1 kg. Their weights range from 0.1 kg to 40.5 kg, showing a sharp peak near the minimum. In contrast, Rock-type Pokémon are generally much heavier, with a mean weight of 87.61 kg and a median of 40.5 kg. Their weights span a wider range, from 7.5 kg up to 300.0 kg, and the distribution is more spread out. The standard deviation of weight is also much higher for Rock types (101.84 kg) compared to Ghost types (23.32 kg), reflecting greater variability.




Each line shows the relationship between height and weight for specific Pokémon type. For Rock-type Pokémon, weight increases consistently with height, forming a strong positive linear trend. In contrast, Ghost-type Pokémon show no change in weight as height increases. Their weights remain constant regardless of their size. On average, Rock-type Pokémon weigh significantly more than Ghost-types at comparable heights. Outliers like Golem and Gengar were removed to better illustrate the overall trend.




Each Pokémon attribute shows a different degree of correlation with the others. Weight and height have the strongest positive correlation at 0.57, meaning taller Pokémon also tend to be heavier. Attack is moderately correlated with both weight (0.46) and height (0.31), suggesting that larger Pokémon are generally stronger. Speed, however, shows very weak correlations with

all other attributes - only 0.06 with weight. Thisd indicates that a Pokémon’s speed is not strongly related to how big or heavy it is. In other words, both light and heavy Pokémon can be either fast or slow. Overall, the heatmap suggests that physical size is more closely related to offensive power, while speed appears to be independent.