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Honor Code Pledge: This work is mine unless otherwise cited

CMPSC 382

Lab 8 Description

This visualization is meant to show the relative weights of various cats and/or dogs. The Y axis indicates the weight of an animal, while the X axis shows the names of the animals. The width of each animal’s bar is determined based on the total number of animals, such that the bars will grow horizontally when less animals are present and shrink proportionally when more are added. Additionally, the Y axis adjusts based on the maximum weight out of all the animals in the dataset, such that each animal’s bar will grow or shrink vertically based on their weight relative to the max weight. This was done in order to minimize the amount of whitespace as much as possible within the bar chart itself. Further, the animals are sorted in ascending order based on weight, such that the shortest bars are always on the left, and the largest bars are always on the right. The animals are further distinguished using color in two ways. First, the hue of an animal’s bar indicates it species, with a red hue indicating a dog and a blue hue indicating a cat. Second, the saturation of the bar reflects the relative age of the animal relative to the maximum age out of all animals in the dataset. More saturated values indicate an older animal, while less saturated values indicate a younger animal. I further created a simple key on the side to help indicate the meaning of these design choices to the user. Finally, I included some information on demand by constantly checking the position of the user’s mouse, and then displaying relevant information about an animal when the user hovers over that animal’s bar.