

### Prompt 1

CLASS COMMAND

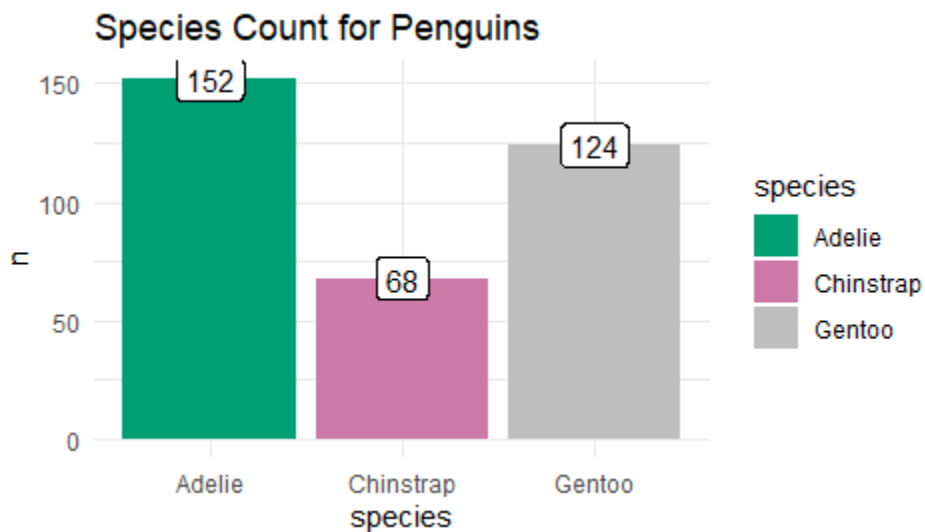
Variable Name	Class
Species	Factor
Sex	Factor
Island	Factor
Body Mass (g)	Integer
Flipper Length (mm)	Integer
Bill Length (mm)	Numeric
Bill Depth (mm)	Numeric

LEVEL COMMAND

Variable Name	Level
Species	Adelie, Chinstrap, Gentoo
Sex	Female, Male
Island	Biscoe, Dream, and Torgersen
Body Mass (g)	Null
Flipper Length (mm)	Null
Bill Length (mm)	Null
Bill Depth (mm)	Null

Interpretation: The variables with a “factor” class have identifiable levels; whereas those with “integer” or “numeric” class do not because they can only have one output at any given time.

### Prompt 2



Interpretation: The bar graph titled “Species Count for Penguins” shows the amount of penguins counted for each of the three species identified; Adelie, Chinstrap, and Gentoo. Based on the graph, the Adelie species has the largest amount, followed by Gentoo, with Chinstrap having the smallest amount.

### Prompt 3

#### SUMMARY COMMAND

Variables	Output 1	Output 2	Output 3
Species	Adelie	Chinstrap	Gentoo
	152	68	124
Sex	Female	Male	NA's
	165	168	11
Island	Biscoe	Dream	Torgersen
	168	124	52

#### SUMMARY COMMAND

Variable	Bill Length (mm)	Bill Depth (mm)	Flipper Length (mm)	Body Mass (g)
Min	32.10	13.10	172.0	2700
1 <sup>st</sup> quartile	39.23	15.60	190.0	3550
Median	44.45	17.30	197.0	4050
3 <sup>rd</sup> quartile	48.50	18.70	213.0	4750
Max	59.60	21.50	231.0	6300

### Prompt 4

1. What have we learned about this data?
  - Based on the scatterplot titled "Flipper Length and Body Mass for each Island," the Gentoo species has both the largest body mass and flipper length. This species live mostly in the Biscoe penguin island and were the second most common species according to the bar graph "Species Count for Penguins."
  - Based on the data, there are three species of penguins of varying sizes that inhabit three different islands. The three species are Adelie, Chinstrap, and Gentoo; the islands are Biscoe, Dream, and Torgersen.
2. What research question can we ask the dataset?
  - What are the ratios of body mass to flipper length for each penguin species on different islands?