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DATA 511

DATA ENCODING

The objective of Data Encoding is to correctly and concisely represent the data provided to us. For the MTCars dataset shared in class, I have used the following Data Encoding to represent the variables present in the dataset.

Parameter	Data Encoding	Specification
Model		
Origin	Containment	**Containment**
Year	Position	**X-Axis**
Cylinders	Shape	**8 -> +** **6 -> ▢** **4 -> △** **3 -> o**
Horsepower	Position	**Y-Axis**
MPG	Color/Saturation	**Color/Saturation**
Weight	Size	**Size**

I have represented the same by using the library ggplot2 in R, using the following code:

```
#Data511 Data Encoding Week 2
#Using the mtcars modified dataset shared by Prof. on Slack

library(ggplot2)
library(shades)
df <- read.csv("Downloads/Data 511_DataEncoding.csv")
fair_cols <- c("#38170B","#BF1B0B", "#FFC465", "#66ADE5", "#252A52")
names(fair_cols) <- letters[1:5]

ggplot(df, aes(x=Year, Horsepower)) +
geom_point(aes(shape = factor(Cylinders), size=Weight, color=MPG)) +
scale_x_discrete(limit = c(70:83)) + facet_wrap(vars(Origin), nrow = 3) +
scale_colour_gradientn(colours = fair_cols)
```

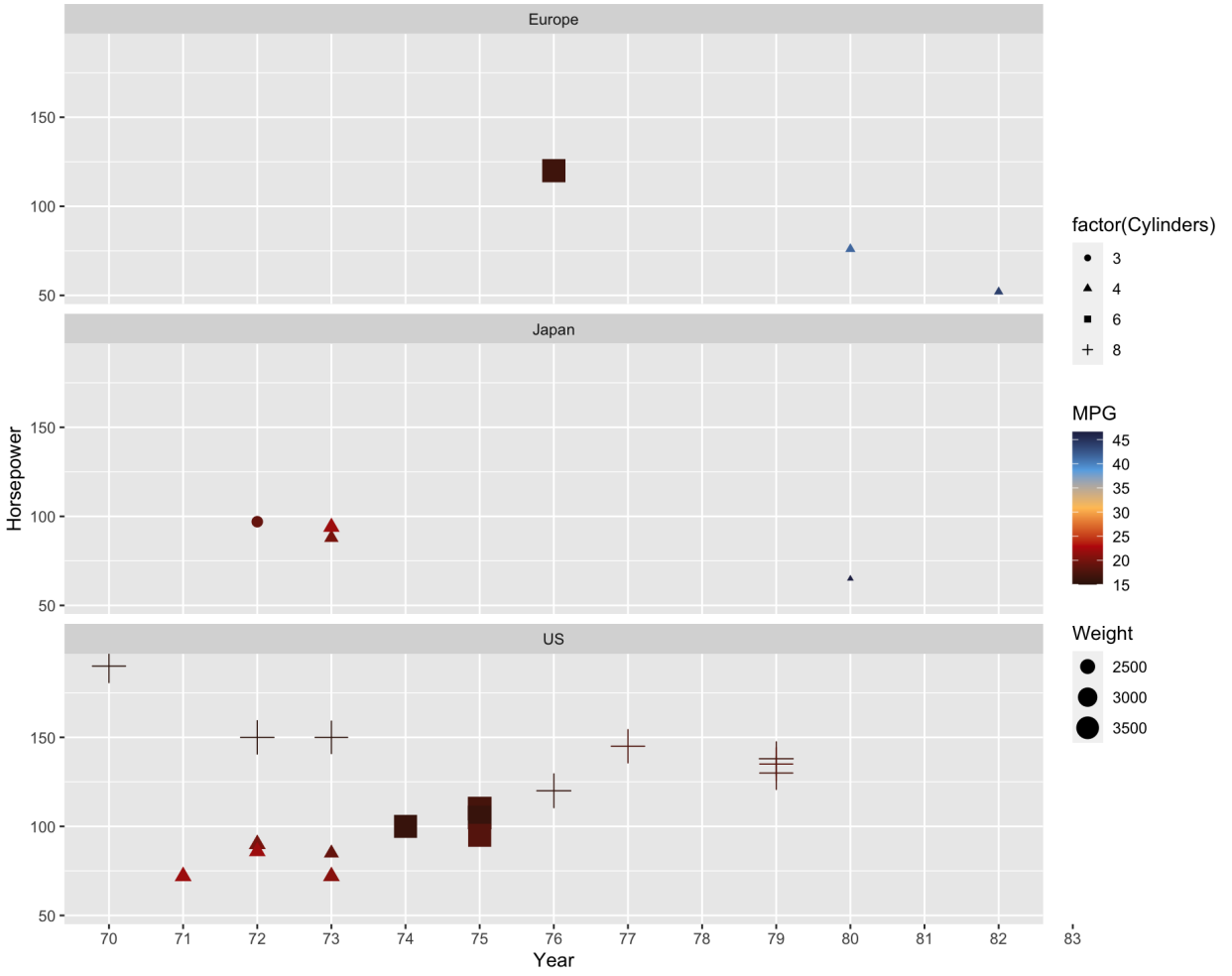

Figure: Data Encoding of mtcars dataset