Circular Dendogram

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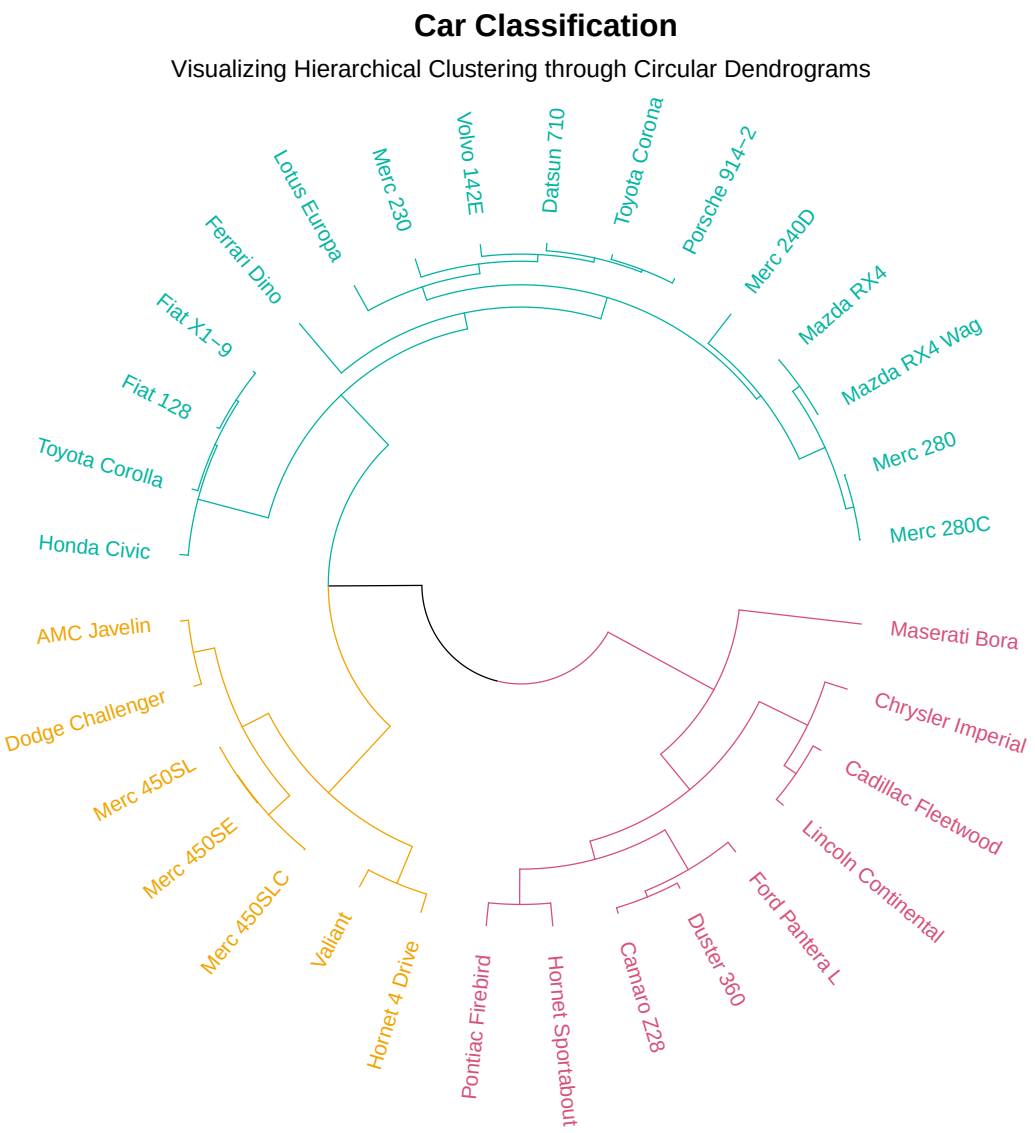
This notebook contains the code used to plot a circular dendrogram.

The libraries I used are `dendextend`, `circlize` and `tidyverse`.

```
library(dendextend)
library(circlize)
library(tidyverse)
```

The data I used is the `mtcars` dataset, which can be used to perform clustering techniques.

```
# Loading data
data(mtcars)

# Distance matrix
d <- dist(mtcars)

# Create dendrogram
hc <- hclust(d)

# Color palette creation
label_colors <- c("#d75078", "#f2a300", "#03b4a1")

# Defining number of clusters and colors for the dendrogram
hc <- hc %>%
  color_branches(k = 3, col = label_colors) %>%
  color_labels(k = 3, col = label_colors)

# Plot the dendrogram
circlize_dendrogram(hc,
                    labels_track_height = 0.3,
                    dend_track_height = 0.5,
                    labels.cex = 0.5)

# Adding title and subtitle
title("Car Classification\n", cex.main = 1.5)
mtext("Visualizing Hierarchical Clustering through Circular Dendrograms", side = 3, line = 0.5, cex = 1

# Adding a signature
text(x = 1, y = -1.05, labels = "Anna Vidiella", adj = c(1, 0), cex = 1.5, font = 3)
```



Additionally, I have created a chunk to save the plot in a .png file.

```
png("circular_dendrogram.png", width = 800, height = 800)

par(font = 2)

# Plot the dendrogram
circlize_dendrogram(hc,
                    labels_track_height = 0.3,
                    dend_track_height = 0.5,
                    labels.cex = 0.5)

# Adding title and subtitle
title("Car Classification\n", cex.main = 1.5)
mtext("Visualizing Hierarchical Clustering through Circular Dendrograms", side = 3, line = 0.5, cex = 1
```

```r
# Adding a signature
text(x = 1, y = -1.05, labels = "Anna Vidiella", adj = c(1, 0), cex = 1.5, font = 3)

dev.off()
```

```
## pdf
##   2
```