Exercise: Weeks 9 & 10 - Charts (R)

Aaron Brown - Winter 2023

LOADING LIBRARIES.

```
library(ggplot2)
library(ggplot2)
library(readxl)
library(lessR)
library(dplyr)
library(tidyr)
library(mapview)
library(RColorBrewer)

# library(treemap)
```

```
# install.packages("mapview")
```

SETTING WORKING DIRECTORY.

```
setwd("/Users/aaronbrown/Documents/Classwork/DSC 640 - Data Presentation and Visualization/")
```

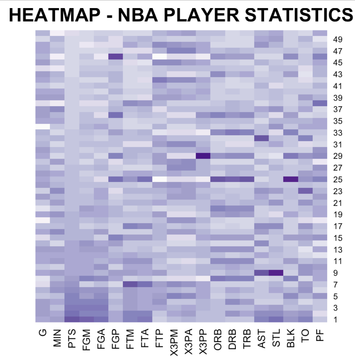
LOADING DATA.

```
player_df <- read.csv("/Users/aaronbrown/Documents/Classwork/DSC 640 - Data Presentation and Visualization/data/ppg2008.csv")
costco_df <- read.csv("/Users/aaronbrown/Documents/Classwork/DSC 640 - Data Presentation and Visualization/data/costcos-geocoded.csv")
```

GENERATING HEATMAP.

```
# Retaining Quant. Features

heatmap_df <- player_df[!(names(player_df) %in% c("Name"))]
```

```
coul <- colorRampPalette(brewer.pal(8, "Purples"))(25)

heatmap <- heatmap(as.matrix(heatmap_df), scale="column",
                   main="HEATMAP - NBA PLAYER STATISTICS",
                   Colv = NA, Rowv = NA, col = coul)
```

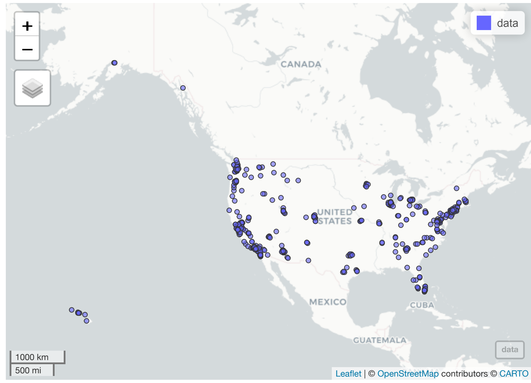



```
heatmap
```

```
## $rowInd
##  [1]  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
## [26] 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
##
## $colInd
##  [1]  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20
##
## $Rowv
## NULL
##
## $Colv
## NULL
```

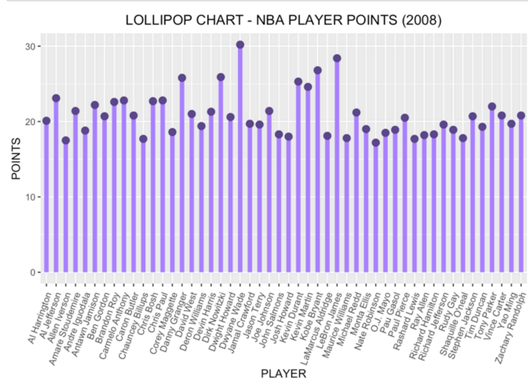
GENERATING SPACIAL MAP

```
spatial_chart <- mapview(costco_df, xcol = "Longitude", ycol = "Latitude",
                         cex = 3,crs = 4269, grid = FALSE)

spatial_chart
```



GENERATING LOLLIPOP CHART.

```
lollipop_chart <- ggplot(player_df, aes(x=Name, y = PTS)) +
  geom_segment(aes(x=Name, xend=Name, y = 0, yend = PTS), color="mediumpurple1", linewidth = 2) +
  geom_point(size = 3, color="mediumpurple4") + scale_x_discrete(guide = guide_axis(angle = 70)) +
  ggtitle("LOLLIPOP CHART - NBA PLAYER POINTS (2008)") + theme(plot.title = element_text(hjust = 0.5)) +
  xlab("PLAYER") + ylab("POINTS")

lollipop_chart
```



REFERENCES.

ggplot2 title : main, axis and legend titles http://www.sthda.com/english/wiki/ggplot2-title-main-axis-and-legend-titles

Line graph in ggplot2 https://r-charts.com/evolution/line-graph-ggplot2/

ggplot2 line plot : Quick start guide - R software and data visualization http://www.sthda.com/english/wiki/ggplot2-line-plot-quick-start-guide-r-software-and-data-visualization

Customize your R treemap https://r-graph-gallery.com/236-custom-your-treemap

R color cheatsheet https://www.nceas.ucsb.edu/sites/default/files/2020-04/colorPaletteCheatsheet.pdf

ggplot2 Quick Reference: colour (and fill) https://sape.inf.usi.ch/quick-reference/ggplot2/colour

GGPLOT POINT SHAPES BEST TIPS https://www.datanovia.com/en/blog/ggplot-point-shapes-best-tips/

Building heatmap with R https://r-graph-gallery.com/215-the-heatmap-function.html

Lollipop plot https://r-graph-gallery.com/lollipop-plot.html

R Color Brewer's palettes https://r-graph-gallery.com/38-rcolorbrewers-palettes.html