Assignment 4.2 - Week 5&6 in R

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Load required libraries

```
library(readxl)
library(ggplot2)
library(plotly)
library(reshape2)
library(mapview)
```

Read xls into a dataframe

```
costco_df <- read.csv("C:/Masters/GitHub/Summer2023/DSC640-Data Presentation & Visualization/Week7&8/ex5-2/costcos-geocoded.csv")
nrow(costco_df)
```

```
## [1] 417
```

```
head(costco_df,5)
```

```
##                     Address       City   State   Zip.Code Latitude  Longitude
## 1  1205 N. Memorial Parkway Huntsville Alabama 35801-5930 34.74309  -86.60096
## 2      3650 Galleria Circle     Hoover Alabama 35244-2346 33.37765  -86.81242
## 3    8251 Eastchase Parkway Montgomery Alabama      36117 32.36389  -86.15088
## 4 5225 Commercial Boulevard     Juneau  Alaska 99801-7210 58.35920 -134.48300
## 5      330 West Dimond Blvd  Anchorage  Alaska 99515-1950 61.14327 -149.88422
```

```
ppg_df <- read.csv("C:/Masters/GitHub/Summer2023/DSC640-Data Presentation & Visualization/Week7&8/ex5-2/ppg2008.csv")
nrow(ppg_df)
```

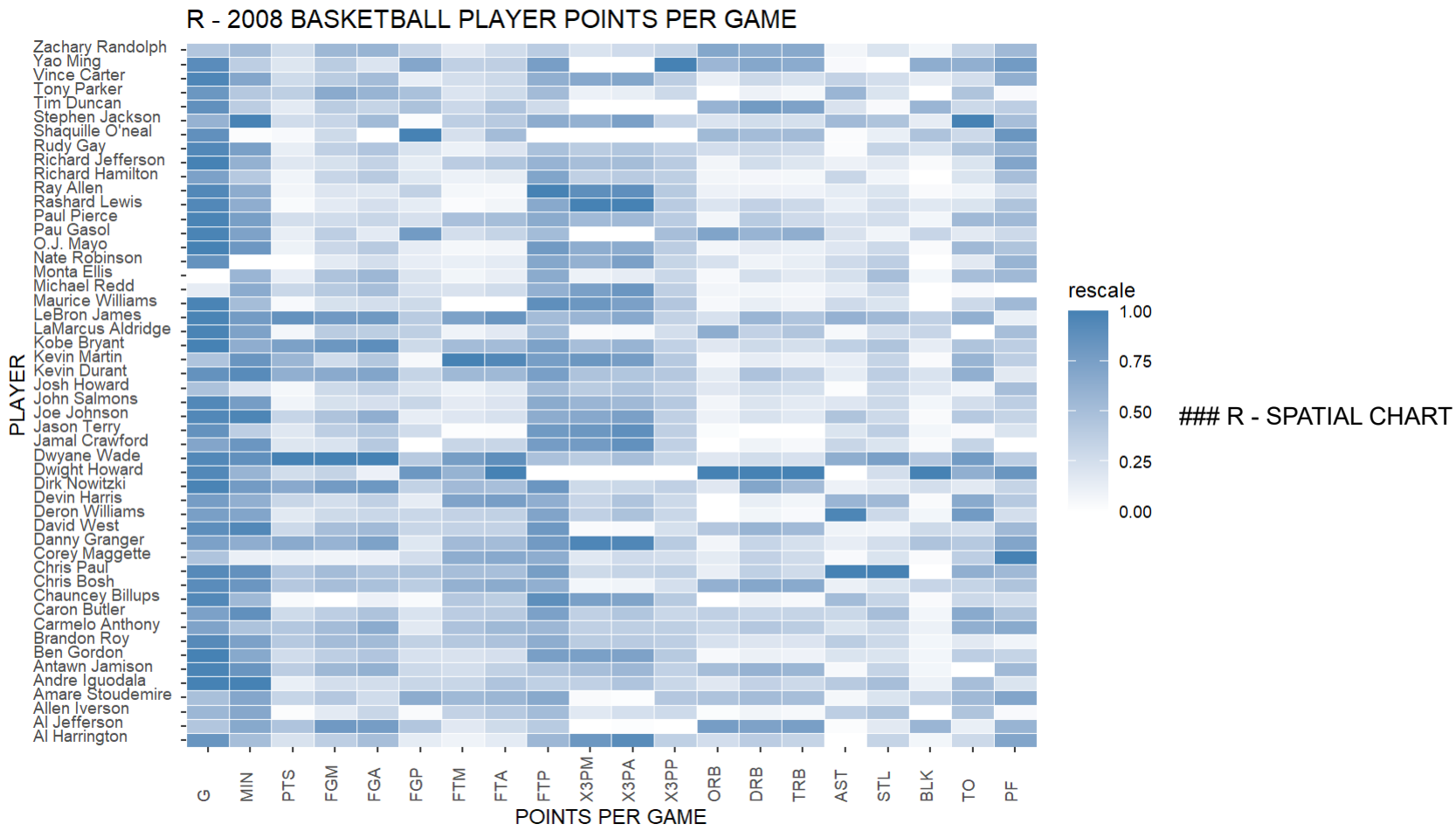
```
## [1] 50
```

```
head(ppg_df,5)
```

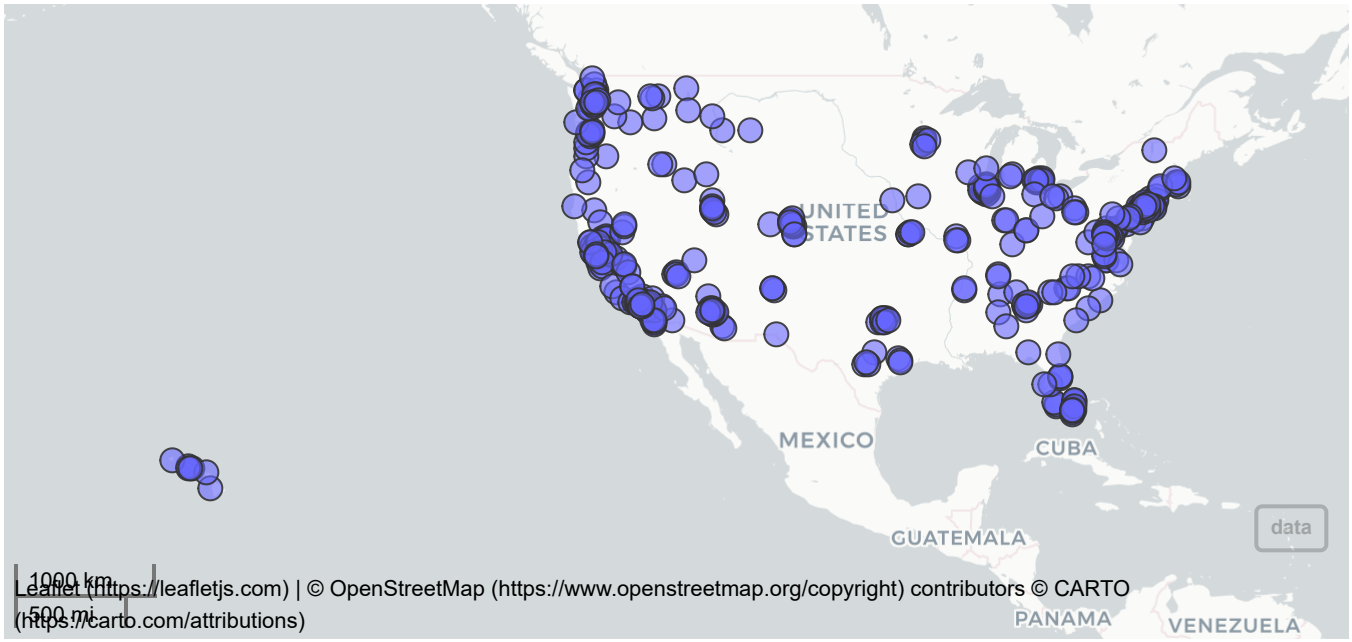
```
##             Name  G  MIN  PTS  FGM  FGA   FGP FTM FTA   FTP X3PM X3PA  X3PP ORB
## 1   Dwyane Wade  79 38.6 30.2 10.8 22.0 0.491 7.5 9.8 0.765  1.1  3.5 0.317 1.1
## 2  LeBron James  81 37.7 28.4  9.7 19.9 0.489 7.3 9.4 0.780  1.6  4.7 0.344 1.3
## 3   Kobe Bryant  82 36.2 26.8  9.8 20.9 0.467 5.9 6.9 0.856  1.4  4.1 0.351 1.1
## 4 Dirk Nowitzki  81 37.7 25.9  9.6 20.0 0.479 6.0 6.7 0.890  0.8  2.1 0.359 1.1
## 5 Danny Granger  67 36.2 25.8  8.5 19.1 0.447 6.0 6.9 0.878  2.7  6.7 0.404 0.7
##   DRB TRB AST STL BLK  TO  PF
## 1 3.9 5.0 7.5 2.2 1.3 3.4 2.3
## 2 6.3 7.6 7.2 1.7 1.1 3.0 1.7
## 3 4.1 5.2 4.9 1.5 0.5 2.6 2.3
## 4 7.3 8.4 2.4 0.8 0.8 1.9 2.2
## 5 4.4 5.1 2.7 1.0 1.4 2.5 3.1
```

R - HEAT MAP

```
library(scales)
library(plyr)

df_melt <- melt(ppg_df)

df_melt <- ddply(df_melt, .(variable),transform,rescale=rescale(value))
base_size <- 9

ggp <- ggplot(df_melt, aes(variable,Name)) +
  geom_tile(aes(fill=rescale),color='white') +
  scale_fill_gradient(low="white",high = "steelblue")+
  theme_grey(base_size = base_size) + labs(x = "", y = "") + scale_x_discrete(expand = c(0, 0)) +
  scale_y_discrete(expand = c(0, 0)) +
  theme(axis.text.x=element_text(angle=90, hjust=0, vjust= 0.1)) +
  theme(axis.text.y=element_text(hjust=0, vjust= 0.1)) +
  ggtitle("R - 2008 BASKETBALL PLAYER POINTS PER GAME") +
  xlab("POINTS PER GAME") +
  ylab("PLAYER")
ggp
```




```
fig <- mapview(costco_df, xcol = "Longitude", ycol = "Latitude",crs = 4269, grid = FALSE, legend = TRUE,
               geometry = TRUE, geography = "tract")
fig
```


UNITED
STATES
MEXICO
CUBA
GUATEMALA
PANAMA
VENEZUELA
data
1000 km
500 mi
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R - LOLLIPOP CHART

```
ggplot(ppg_df, aes(x=Name, y=G)) +
geom_segment( aes(x=Name, xend=Name, y=0, yend=G)) +
geom_point(size=4) + scale_x_discrete(guide = guide_axis(angle = 45)) +
  ggtitle("R - Lollipop Chart for Player points vs Team G") +
  xlab("Player Name") +
  ylab("Team - G")
```