Q3 ggplot2 package student1

# load data  
NEI <- readRDS("summarySCC\_PM25.rds")  
SCC <- readRDS("Source\_Classification\_Code.rds")  
  
# extract data for plot3 and plot  
library(ggplot2)  
baltimore <- NEI[NEI$fips=="24510", ]  
data3 <- aggregate(baltimore$Emissions,   
                   list(baltimore$year, baltimore$type), FUN=sum)  
names(data3) <- c("year", "type", "Emissions")  
qplot(year, Emissions, data=data3, color=type, geom="line",   
      xlab="year", ylab="total emissions",   
      main="Total emissions over time in Baltimore by type of Pollutant")  
dev.copy(png, file="plot3.png")  
dev.off()

Q3 ggplot2 package student2

library(ggplot2)

setwd("~/DataScienceSpecialization/ExploratoryAnalysis/Project2")

NEI <- readRDS("exdata-data-NEI\_data/summarySCC\_PM25.rds")

SCC <- readRDS("exdata-data-NEI\_data/Source\_Classification\_Code.rds")

df <- aggregate (Emissions ~ year + type, data = NEI,

                 subset = (NEI$fips=="24510"), FUN = sum)

qplot(year, Emissions, data = df, facets = . ~ type)

dev.copy(png, file="plot3.png")

dev.off()

Q4 student2

setwd("~/DataScienceSpecialization/ExploratoryAnalysis/Project2")

NEI <- readRDS("exdata-data-NEI\_data/summarySCC\_PM25.rds")

SCC <- readRDS("exdata-data-NEI\_data/Source\_Classification\_Code.rds")

coalSCCcode <- SCC$SCC[grepl("coal", SCC$EI.Sector, ignore.case=TRUE)]

coalNEI <- NEI[NEI$SCC %in% coalSCCcode,]

df <- aggregate (Emissions ~ year, data = coalNEI, FUN = sum)

plot(df$year, df$Emissions, xlab="Year", ylab="Emissions")

dev.copy(png, file="plot4.png")

dev.off()

Q5 Student2

setwd("~/DataScienceSpecialization/ExploratoryAnalysis/Project2")

NEI <- readRDS("exdata-data-NEI\_data/summarySCC\_PM25.rds")

SCC <- readRDS("exdata-data-NEI\_data/Source\_Classification\_Code.rds")

motorSCCcode <- SCC$SCC[grepl("mobile", SCC$EI.Sector, ignore.case=TRUE)]

motorNEI <- NEI[NEI$SCC %in% motorSCCcode,]

df <- aggregate (Emissions ~ year, data = motorNEI,

                 subset = (motorNEI$fips=="24510"), FUN = sum)

plot(df$year, df$Emissions, xlab="Year", ylab="Emissions")

dev.copy(png, file="plot5.png")

dev.off()

Q6 Student2

library(ggplot2)

setwd("~/DataScienceSpecialization/ExploratoryAnalysis/Project2")

NEI <- readRDS("exdata-data-NEI\_data/summarySCC\_PM25.rds")

SCC <- readRDS("exdata-data-NEI\_data/Source\_Classification\_Code.rds")

motorSCCcode <- SCC$SCC[grepl("mobile", SCC$EI.Sector, ignore.case=TRUE)]

motorNEI <- NEI[NEI$SCC %in% motorSCCcode,]

df <- aggregate (Emissions ~ year + fips, data = motorNEI,

                 subset = (motorNEI$fips=="24510" | motorNEI$fips=="06037"), FUN = sum)

df$city <- ifelse(df$fips=="06037", "Los Angeles County", "Baltimore City")

qplot(year, Emissions, data = df, facets = . ~ city)

dev.copy(png, file="plot6.png")

dev.off()