Exploratory Data Analysis: Project 1

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Summary

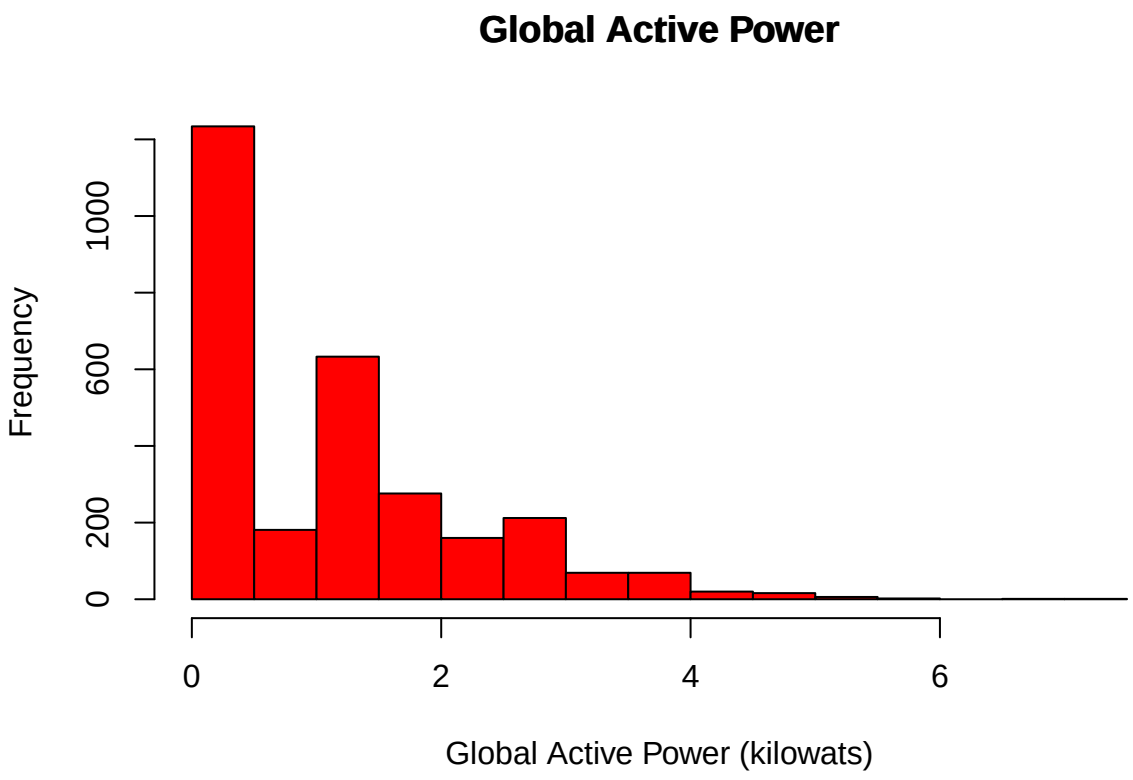
This assignment aims at providing R code required for plotting 4 per-defined plots

Plot 1

```
#reading, naming and subsetting power consumption data
power <- read.table("household_power_consumption.txt", skip = 1, sep = ";")
names(power) <- c("Date","Time","Global_active_power","Global_reactive_power","Voltage","Global_intensi
subpower <- subset(power, power$Date == "1/2/2007" | power$Date == "2/2/2007")

#calling the basic plot function
hist(as.numeric(as.character(subpower$Global_active_power)), col = "red", main = "Global Acrive Power",

#annotating graph
title(main="Global Active Power")
```



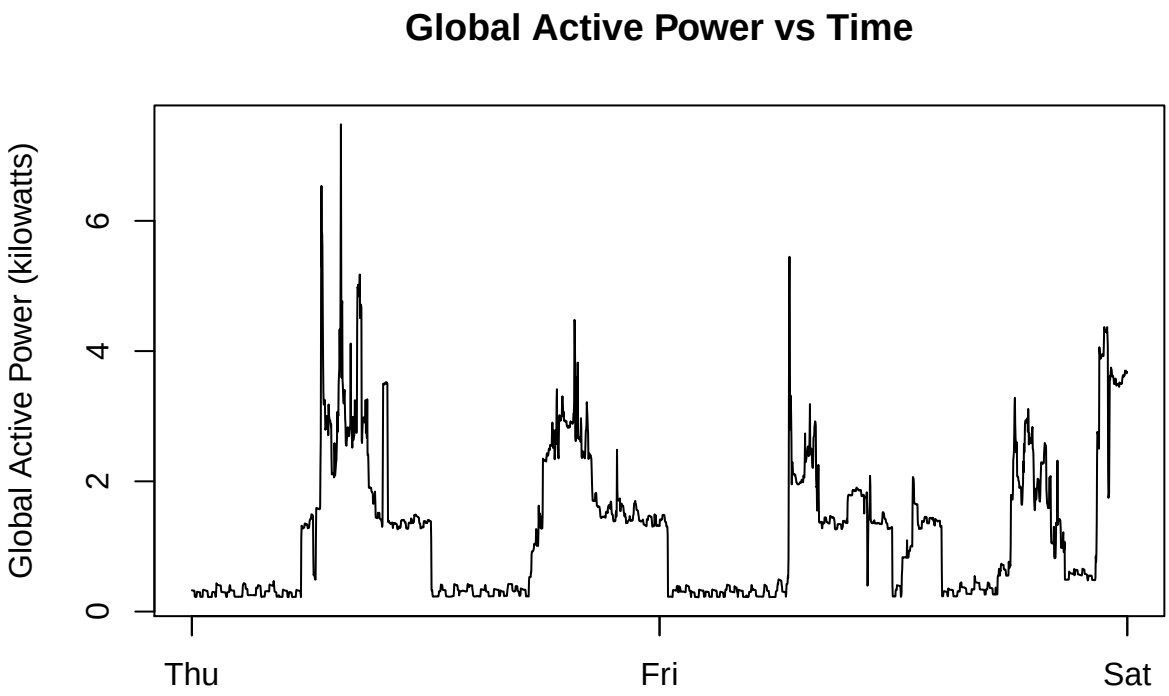
Plot 2

```
# Reading, naming and subsetting power consumption data
power <- read.table("household_power_consumption.txt",skip=1,sep=";")
names(power) <- c("Date","Time","Global_active_power","Global_reactive_power","Voltage","Global_intensi
subpower <- subset(power,power$Date=="1/2/2007" | power$Date =="2/2/2007")

# Transforming the Date and Time vars from characters into objects of type Date and POSIXlt respectivel
subpower$Date <- as.Date(subpower$Date, format="%d/%m/%Y")
subpower$Time <- strptime(subpower$Time, format="%H:%M:%S")
subpower[1:1440,"Time"] <- format(subpower[1:1440,"Time"],"2007-02-01 %H:%M:%S")
subpower[1441:2880,"Time"] <- format(subpower[1441:2880,"Time"],"2007-02-02 %H:%M:%S")

# calling the basic plot function
plot(subpower$Time,as.numeric(as.character(subpower$Global_active_power)),type="l",xlab="",ylab="Global

# annotating graph
title(main = "Global Active Power vs Time")
```



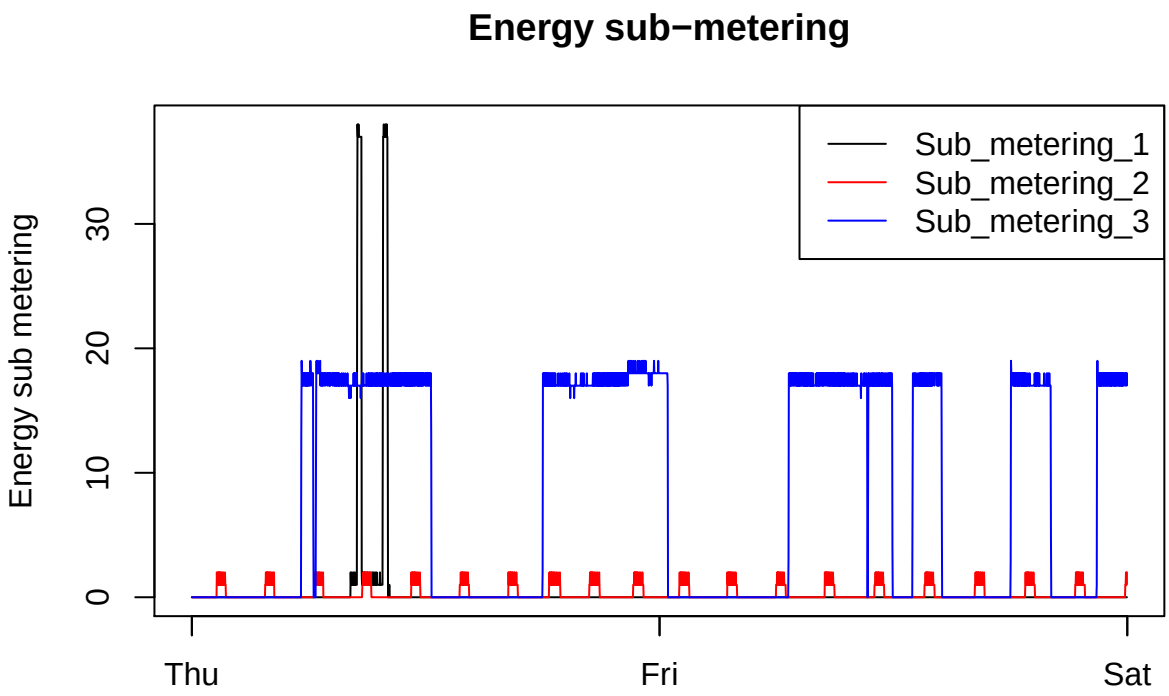
Plot 3

```
# Reading, naming and subsetting power consumption data
power <- read.table("household_power_consumption.txt",skip=1,sep=";")
names(power) <- c("Date","Time","Global_active_power","Global_reactive_power","Voltage","Global_intensi
subpower <- subset(power,power$Date=="1/2/2007" | power$Date =="2/2/2007")

# Transforming the Date and Time vars from characters into objects of type Date and POSIXlt respectivel
subpower$Date <- as.Date(subpower$Date, format="%d/%m/%Y")
subpower$Time <- strptime(subpower$Time, format="%H:%M:%S")
subpower[1:1440,"Time"] <- format(subpower[1:1440,"Time"],"2007-02-01 %H:%M:%S")
subpower[1441:2880,"Time"] <- format(subpower[1441:2880,"Time"],"2007-02-02 %H:%M:%S")


# calling the basic plot functions
plot(subpower$Time,subpower$Sub_metering_1,type="n",xlab="",ylab="Energy sub metering")
with(subpower,lines(Time,as.numeric(as.character(Sub_metering_1))))
with(subpower,lines(Time,as.numeric(as.character(Sub_metering_2)),col="red"))
with(subpower,lines(Time,as.numeric(as.character(Sub_metering_3)),col="blue"))
legend("topright", lty=1, col=c("black","red","blue"),legend=c("Sub_metering_1","Sub_metering_2","Sub_m

# annotating graph
title(main="Energy sub-metering")
```



Plot 4

```
# Reading, naming and subsetting power consumption data
power <- read.table("household_power_consumption.txt",skip=1,sep=";")
names(power) <- c("Date","Time","Global_active_power","Global_reactive_power","Voltage","Global_intensi
subpower <- subset(power,power$Date=="1/2/2007" | power$Date =="2/2/2007")

# Transforming the Date and Time vars from characters into objects of type Date and POSIXlt respectivel
subpower$Date <- as.Date(subpower$Date, format="%d/%m/%Y")
subpower$Time <- strptime(subpower$Time, format="%H:%M:%S")
subpower[1:1440,"Time"] <- format(subpower[1:1440,"Time"],"2007-02-01 %H:%M:%S")
subpower[1441:2880,"Time"] <- format(subpower[1441:2880,"Time"],"2007-02-02 %H:%M:%S")


# initiating a composite plot with many graphs
par(mfrow=c(2,2))

# calling the basic plot function that calls different plot functions to build the 4 plots that form th
with(subpower,{
  plot(subpower$Time,as.numeric(as.character(subpower$Global_active_power)),type="l",  xlab="",ylab="Gl
  plot(subpower$Time,as.numeric(as.character(subpower$Voltage)), type="l",xlab="datetime",ylab="Voltage
  plot(subpower$Time,subpower$Sub_metering_1,type="n",xlab="",ylab="Energy sub metering")
   with(subpower,lines(Time,as.numeric(as.character(Sub_metering_1))))
   with(subpower,lines(Time,as.numeric(as.character(Sub_metering_2)),col="red"))
```

```
  with(subpower,lines(Time,as.numeric(as.character(Sub_metering_3)),col="blue"))
  legend("topright", lty=1, col=c("black","red","blue"),legend=c("Sub_metering_1","Sub_metering_2","Su
 plot(subpower$Time,as.numeric(as.character(subpower$Global_reactive_power)),type="l",xlab="datetime",
})
```