# assignment for exp_data

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```
setwd("C:/Users/amena/Documents/old laptop/g/data science/exploratory data analysis data set/exdata_data_househ
old_power_consumption/exdata_data_household_power_consumption")
t <- read.table("household_power_consumption.txt", header=TRUE, sep=";", na.strings = "?", colClasses = c('char
acter','character','numeric','numeric','numeric','numeric','numeric','numeric','numeric'))
## Format date to Type Date
t$Date <- as.Date(t$Date, "%d/%m/%Y")

## Filter data set from Feb. 1, 2007 to Feb. 2, 2007
t <- subset(t,Date >= as.Date("2007-2-1") & Date <= as.Date("2007-2-2"))

## Remove incomplete observation
t <- t[complete.cases(t),]

## Combine Date and Time column
dateTime <- paste(t$Date, t$Time)

## Name the vector
dateTime <- setNames(dateTime, "DateTime")

## Remove Date and Time column
t <- t[ ,!(names(t) %in% c("Date","Time"))]

## Add DateTime column
t <- cbind(dateTime, t)

## Format dateTime Column
t$dateTime <- as.POSIXct(dateTime)


#PLOT 1
  ## Create the histogram
  hist(t$Global_active_power, main="Global Active Power", xlab = "Global Active Power (kilowatts)", col="red")
```
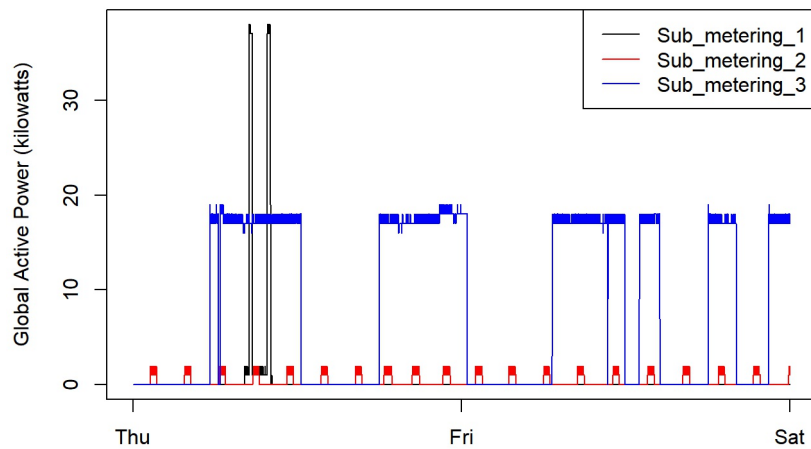

Global Active Power
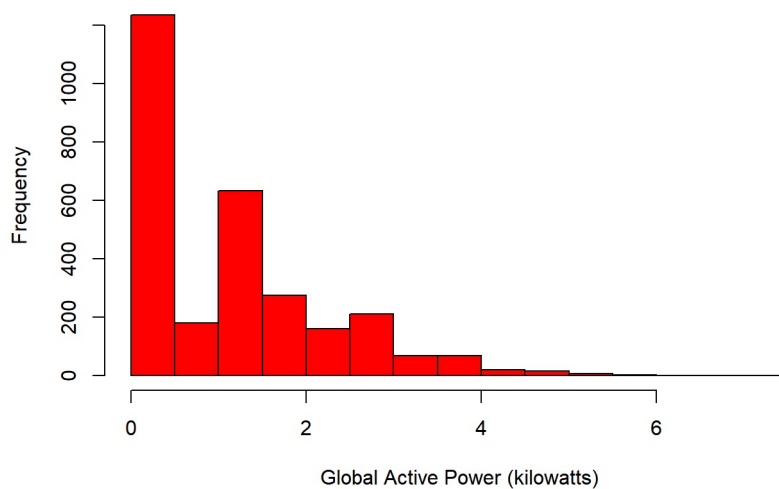
```
  ## Save file and close device
  #dev.copy(png,"plot1.png", width=480, height=480)
  #dev.off()


#PLOT 2
## Create Plot 2
  plot(t$Global_active_power~t$dateTime, type="l", ylab="Global Active Power (kilowatts)", xlab="")
```
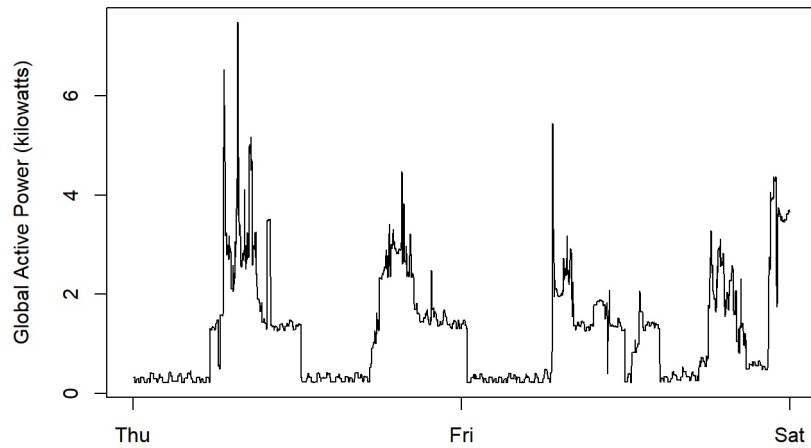
```
#dev.copy(png,"plot2.png", width=480, height=480)
#dev.off()


#PLOT 3
## Create Plot 3
  with(t, {
    plot(Sub_metering_1~dateTime, type="l",
         ylab="Global Active Power (kilowatts)", xlab="")
    lines(Sub_metering_2~dateTime,col='Red')
    lines(Sub_metering_3~dateTime,col='Blue')
  })
  legend("topright", col=c("black", "red", "blue"), lwd=c(1,1,1),
         c("Sub_metering_1", "Sub_metering_2", "Sub_metering_3"))
```



```
## Saving to file
  #dev.copy(png, file="plot3.png", height=480, width=480)
  #dev.off()


#PLOT 4
  ## Create Plot 4
  par(mfrow=c(2,2), mar=c(4,4,2,1), oma=c(0,0,2,0))
  with(t, {
    plot(Global_active_power~dateTime, type="l",
         ylab="Global Active Power (kilowatts)", xlab="")
    plot(Voltage~dateTime, type="l",
         ylab="Voltage (volt)", xlab="")
    plot(Sub_metering_1~dateTime, type="l",
         ylab="Global Active Power (kilowatts)", xlab="")
    lines(Sub_metering_2~dateTime,col='Red')
    lines(Sub_metering_3~dateTime,col='Blue')
    legend("topright", col=c("black", "red", "blue"), lty=1, lwd=2, bty="n",
           legend=c("Sub_metering_1", "Sub_metering_2", "Sub_metering_3"))
    plot(Global_reactive_power~dateTime, type="l",
         ylab="Global Rective Power (kilowatts)",xlab="")
  })
```
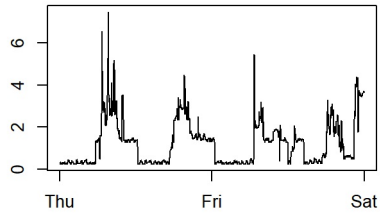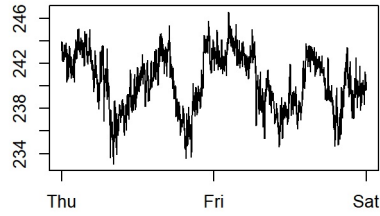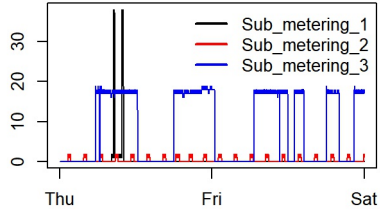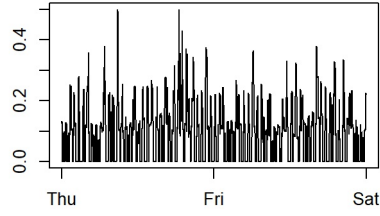
```
## Saving to file
  #dev.copy(png, file="plot4.png", height=480, width=480)
  #dev.off()
```