Household Electric Power Consumption

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DOWNLOAD AND UNZIP FILE FROM URL

```
prelim <- tempfile()
  download.file("http://d396qusza40orc.cloudfront.net/exdata%2Fdata%2Fhousehold_power_consumption.zip",prelim)
    file <- unzip(prelim)
    unlink(prelim)
```

READ FILE INTO R

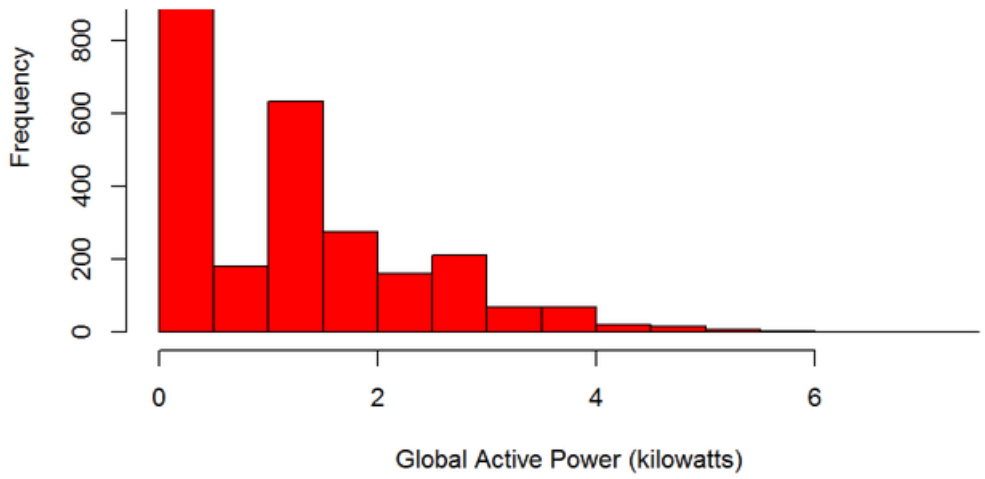
```
electricity <- read.table(file, header=T, sep=";")
```

PREPROCESS DATA FOR ANALYSIS

```
electricity$Date <- as.Date(electricity$Date, format="%d/%m/%Y")
  data <- electricity[(electricity$Date=="2007-02-01") | (electricity$Date=="2007-02-02"),]
    data$Global_active_power <- as.numeric(as.character(data$Global_active_power))
    data$Global_reactive_power <- as.numeric(as.character(data$Global_reactive_power))
    data$Voltage <- as.numeric(as.character(data$Voltage))
    data <- transform(data, timestamp=as.POSIXct(paste(Date, Time)), "%d/%m/%Y %H:%M:%S")
    data$Sub_metering_1 <- as.numeric(as.character(data$Sub_metering_1))
    data$Sub_metering_2 <- as.numeric(as.character(data$Sub_metering_2))
    data$Sub_metering_3 <- as.numeric(as.character(data$Sub_metering_3))
```

Plot 1 - HISTOGRAM FOR GLOBAL ACTIVE POWER

```
hist(data$Global_active_power, col = "red", main = "Global Active Power", xlab = "Global Active Power (kilowatts)")
```




```
dev.copy(png, file="plot1.png", width=480, height=480)
```

```
## png
##   3
```

```
dev.off()
```

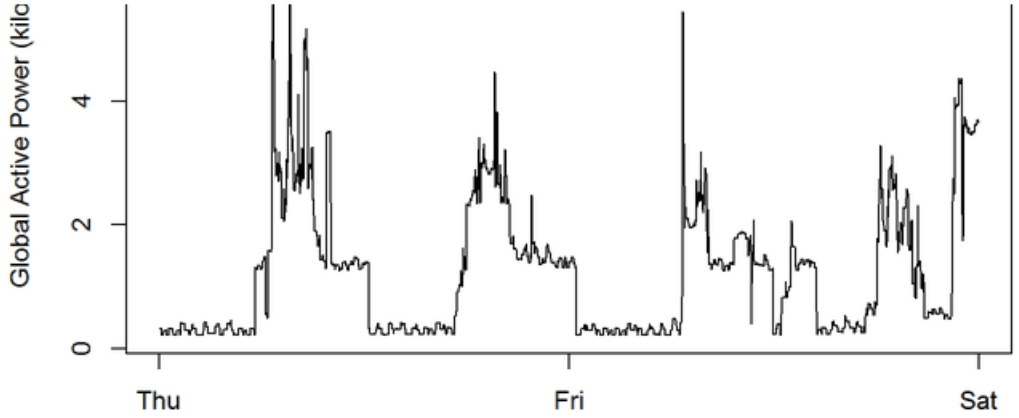
```
## pdf
##   2
```

```
cat(getwd())
```

```
## c:/MJC/R Working Directory
```

PLOT 2 - FOR GLOBAL ACTIVE POWER X KILOWATTS/DAY

```
plot(data$timestamp,data$Global_active_power, type="l", xlab="", ylab="Global Active Power (kilowatts)")
```




```
  dev.copy(png, file="plot2.png", width=480, height=480)
```

```
## png
##   3
```

```
    dev.off()
```

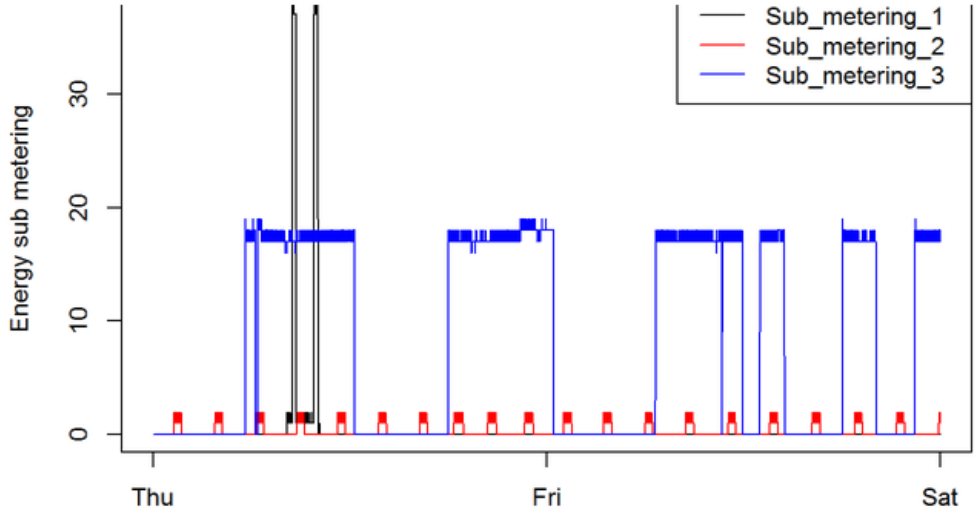
```
## pdf
##   2
```

```
    cat (getwd())
```

```
## c:/MJC/R Working Directory
```

PLOT 3 - PLOT FOR ENERGY SUB-METERING X DAY

```
plot(data$timestamp,data$Sub_metering_1, type="l", xlab="", ylab="Energy sub metering")
        lines(data$timestamp,data$Sub_metering_2,col="red")
        lines(data$timestamp,data$Sub_metering_3,col="blue")
        legend("topright", col=c("black","red","blue"), c("Sub_metering_1  ","Sub_metering_2  ", "Sub_metering_3  "),lty=c(1,1), lwd=c(1,1)
)
```




```
        dev.copy(png, file="plot3.png", width=480, height=480)
```

```
## png
##   3
```

```
        dev.off()
```

```
## pdf
##   2
```

```
        cat(getwd())
```

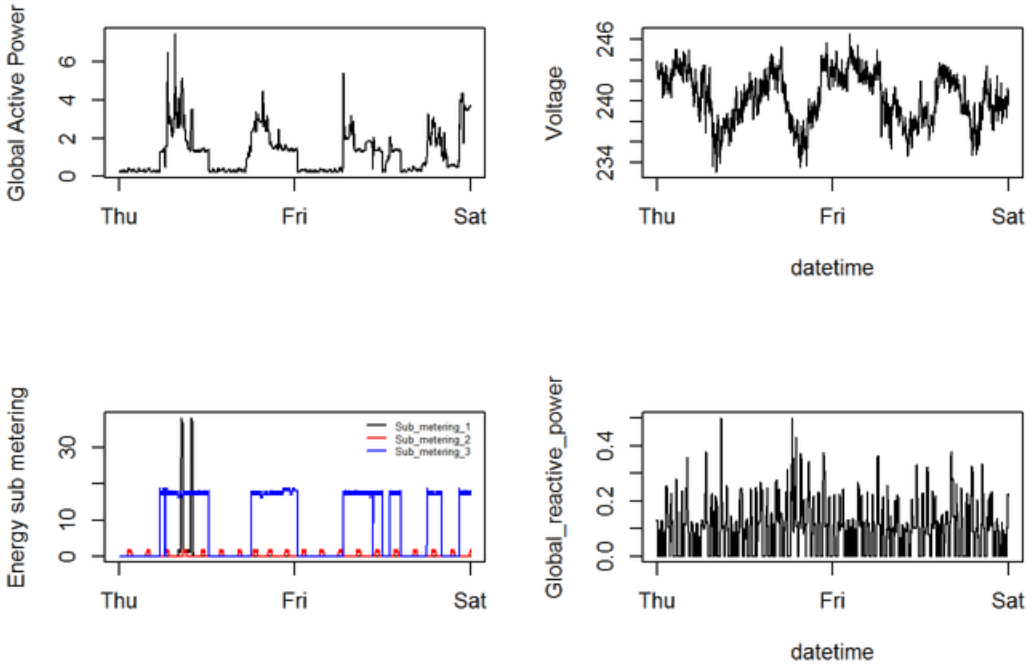
```
## c:/MJC/R Working Directory
```

Plot 4 - Panel PlotS

```
        par(mfrow=c(2,2))

##plot1
        plot(data$timestamp,data$Global_active_power, type="l", xlab="", ylab="Global Active Power")
##plot2
        plot(data$timestamp,data$Voltage, type="l", xlab="datetime", ylab="Voltage")
##plot3
        plot(data$timestamp,data$Sub_metering_1, type="l", xlab="", ylab="Energy sub metering")
        lines(data$timestamp,data$Sub_metering_2,col="red")
```

```
        lines(data$timestamp,data$Sub_metering_3,col="blue")
        legend("topright", col=c("black","red","blue"), c("Sub_metering_1  ","Sub_metering_2  ", "Sub_metering_3  "),lty=c(1,1), bty="n", c
ex=.5)
#plot4
        plot(data$timestamp,data$Global_reactive_power, type="l", xlab="datetime", ylab="Global_reactive_power")
```




```
#RESULT plot4.png
        dev.copy(png, file="plot4.png", width=480, height=480)
```

```
## png
##   3
```

```
        dev.off()
```

```
## pdf
##   2
```

```
        cat(getwd())
```

```
## c:/MJC/R Working Directory
```