

proj1

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Project 1: Movement

Submitted by Andrew Chang on Jan 08 2021 for the Johns Hopkins Reproducible Research course for **rand** credits

```
readAct <- read.csv("C:/Users/arkai/Documents/R/projects/DSS05_RepRes/repdata_data_activity/activity.csv",  
                    colClasses = c("numeric", "POSIXct", "integer"))
```

```
?read.csv
```

```
## starting httpd help server ... done
```

```
summary(readAct)
```

```
##      steps              date              interval  
## Min.   : 0.00   Min.   :2012-10-01 00:00:00   Min.   : 0.0  
## 1st Qu.: 0.00   1st Qu.:2012-10-16 00:00:00   1st Qu.: 588.8  
## Median : 0.00   Median :2012-10-31 00:00:00   Median :1177.5  
## Mean   : 37.38   Mean   :2012-10-31 00:25:34   Mean   :1177.5  
## 3rd Qu.: 12.00   3rd Qu.:2012-11-15 00:00:00   3rd Qu.:1766.2  
## Max.   :806.00   Max.   :2012-11-30 00:00:00   Max.   :2355.0  
## NA's   :2304
```

```
dim(readAct)
```

```
## [1] 17568      3
```

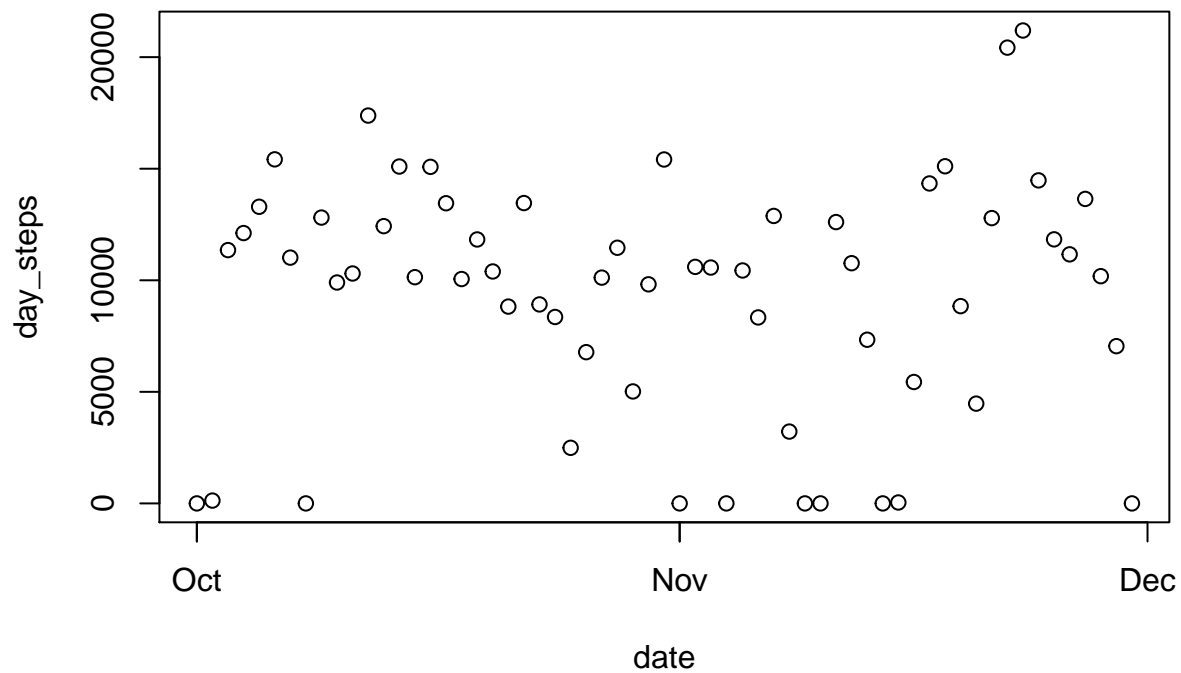
```
head(readAct)
```

```
##    steps      date interval  
## 1    NA 2012-10-01         0  
## 2    NA 2012-10-01         5  
## 3    NA 2012-10-01        10  
## 4    NA 2012-10-01        15  
## 5    NA 2012-10-01        20  
## 6    NA 2012-10-01        25
```

```
actDaily <- readAct %>%  
  select(  
    date, steps  
  ) %>%  
  group_by(date) %>%  
  summarize(  
    day_steps = sum(steps, na.rm = TRUE)  
  )
```

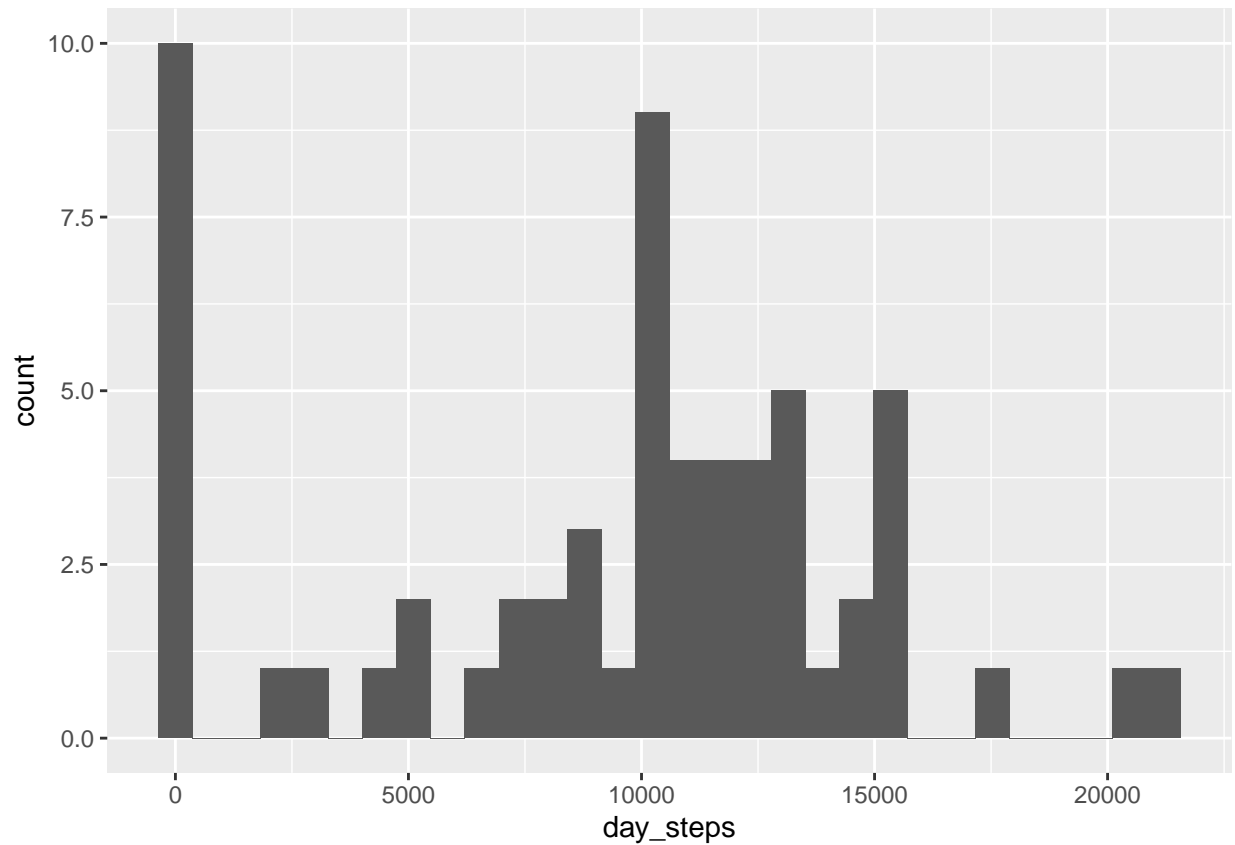
```
actDailyMean <- mean(actDaily$day_steps, na.rm = TRUE)
actDailyMed <- median(actDaily$day_steps, na.rm = TRUE)

plot(actDaily)
```



```
ggplot(data = actDaily, aes(day_steps)) +
  geom_histogram()
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

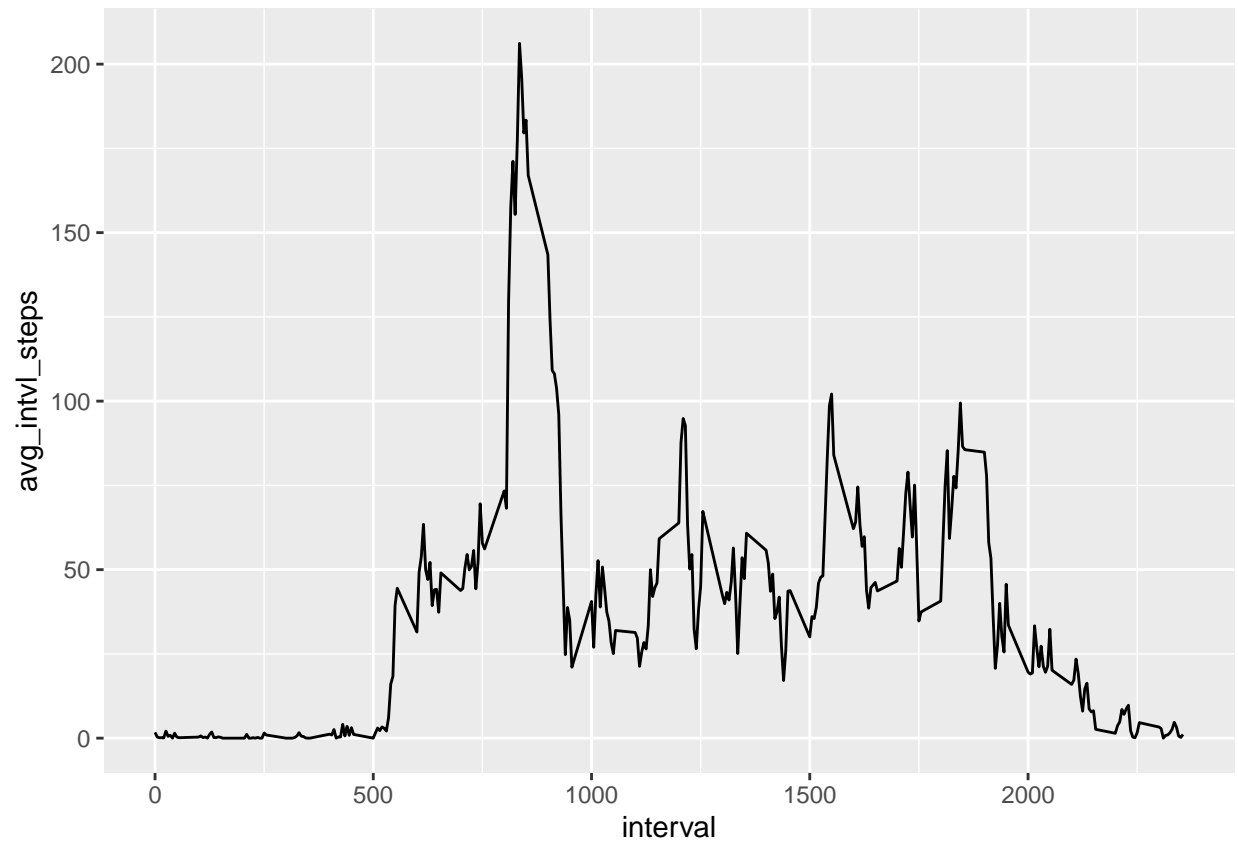


```
actIntvl <- readAct %>%
  select(
    date, steps, interval
  ) %>%
  group_by(interval) %>%
  summarize(
    avg_intvl_steps = mean(steps, na.rm = TRUE)
  )

dim(actIntvl)

## [1] 288 2

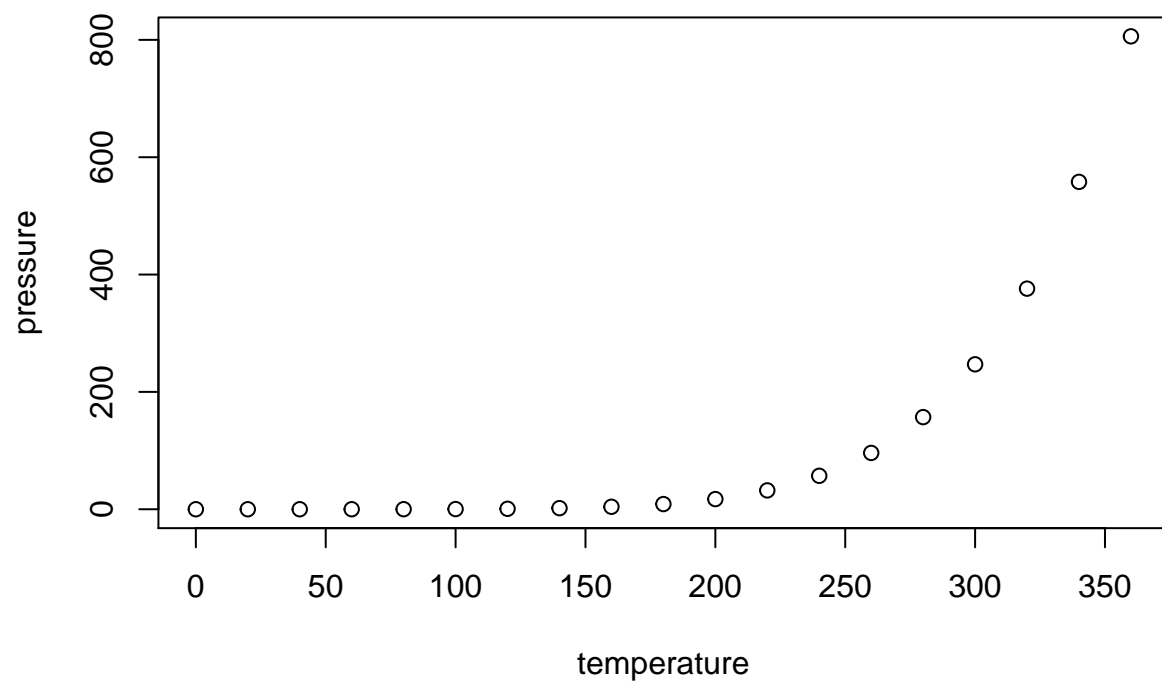
ggplot(data = actIntvl, aes(interval, avg_intvl_steps)) +
  geom_line()
```



```
# actDaily %>%  
#   filter(  
#     day_steps == max(actDaily$day_steps, na.rm = TRUE)  
#   )
```

Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.