mapping

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Read & Clean raw data to get Allston area data

```
mydata <- read.csv("mayorsfoodcourt.csv")

library(dplyr)
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
library(tidyr)
Allston <- mydata %>%
  filter(ViolStatus=="Fail" &  CITY == "Allston") %>%
  extract(Location, c("Latitude", "Longitude"), "\\(([^,]+), ([^)]+)\\)") %>%
  filter(!is.na(Latitude))
Allston$Latitude = as.numeric(Allston$Latitude)

Allston$Longitude = as.numeric(Allston$Longitude)
```

Static Plot

```
# geocode("allston",source="dsk")
library(ggmap)
```

```
## Loading required package: ggplot2
```

```
## Google Maps API Terms of Service: http://developers.google.com/maps/terms.
```

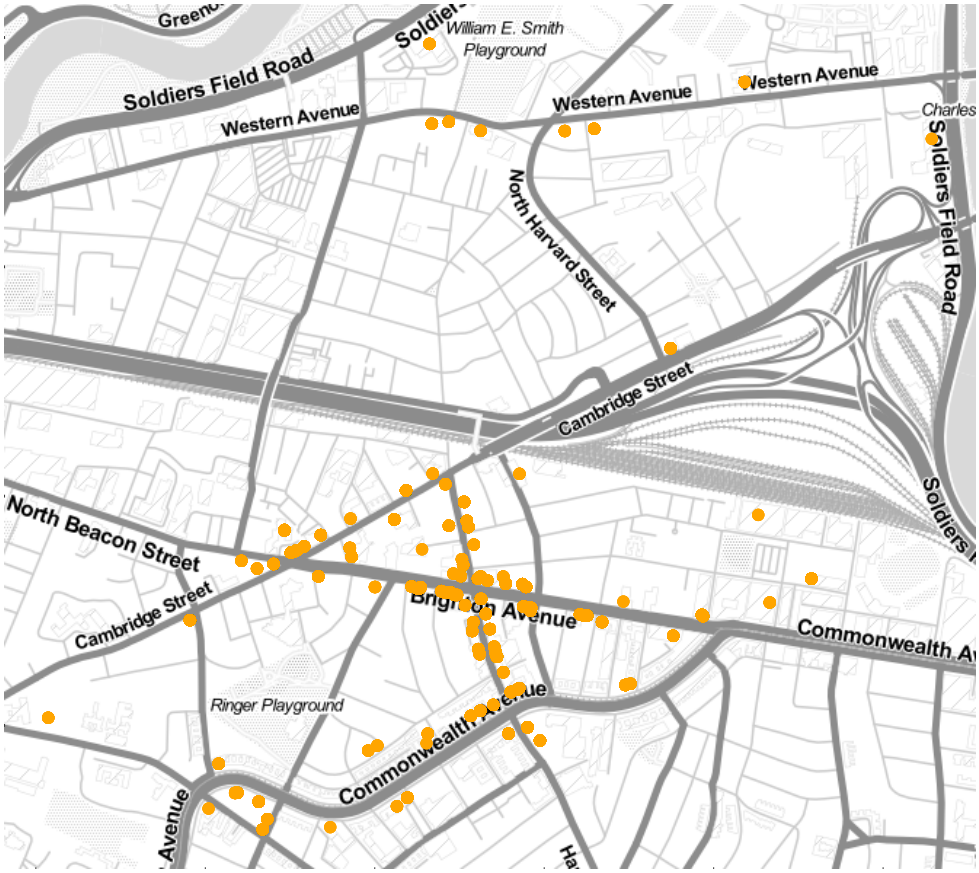
```
## Please cite ggmap if you use it: see citation("ggmap") for details.
```

```
library(ggplot2)
#
# ggmap(get_googlemap())
# register_google(key = "AIzaSyDsMKikezjPO_1HDzS_QpUX1_wC49M006E")

# map <- get_googlemap(center = c(-71.13, 42.355), zoom = 14)
# # map <- get_map(location = c(-71.13, 42.355), zoom = 14,maptype="toner",source="stamen")
# ggmap(map) +
#   geom_point(aes(x = Longitude, y = Latitude,colour=ViolLevel),data=Allston,alpha=0.5)

qmplot(Longitude, Latitude, data = Allston, maptype = "toner-lite", color = I("orange"))
```

```
## Using zoom = 15...
## Source : http://tile.stamen.com/toner-lite/15/9908/12119.png
## Source : http://tile.stamen.com/toner-lite/15/9909/12119.png
## Source : http://tile.stamen.com/toner-lite/15/9910/12119.png
## Source : http://tile.stamen.com/toner-lite/15/9908/12120.png
## Source : http://tile.stamen.com/toner-lite/15/9909/12120.png
## Source : http://tile.stamen.com/toner-lite/15/9910/12120.png
## Source : http://tile.stamen.com/toner-lite/15/9908/12121.png
## Source : http://tile.stamen.com/toner-lite/15/9909/12121.png
## Source : http://tile.stamen.com/toner-lite/15/9910/12121.png
```



Using Leaflet

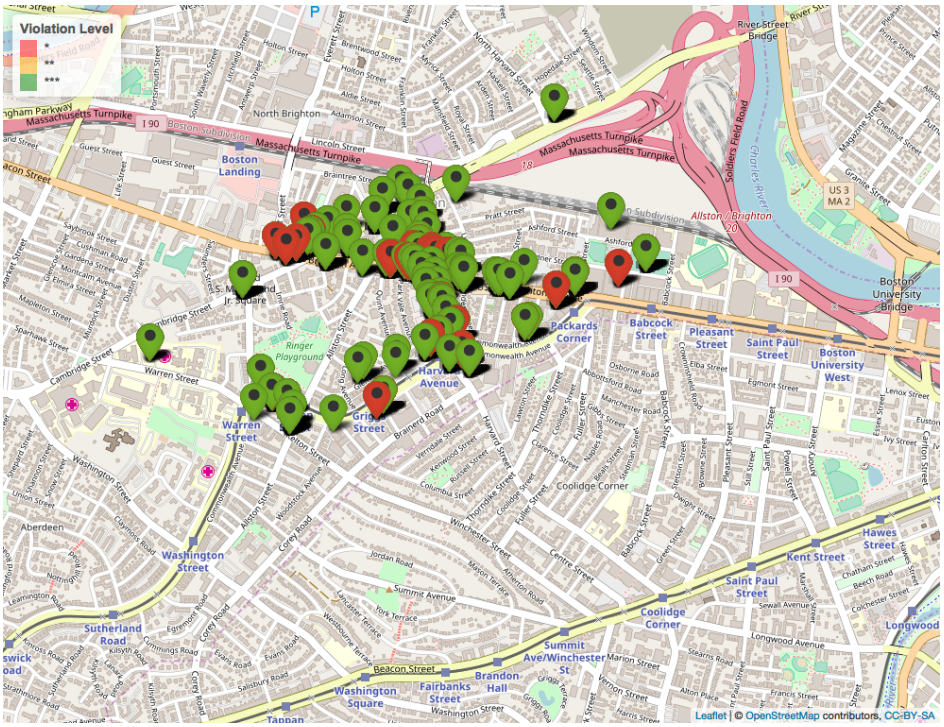
```
library(leaflet)
library(mapview)
library(knitr)
# webshot:: install_phantomjs()
getColor <- function(D) {
  sapply(D$ViolLevel, function(x) {
    if(x == "*") {
```

```
      "green"
    } else if(x == "**") {
      "orange"
    } else {
      "red"
    } })
}

icons <- awesomeIcons(
  icon = 'ios-close',
  iconColor = 'black',
  library = 'ion',
  markerColor = getColor(Allston)
)

pal <- colorFactor(c("#ff0000","#ffa500","#008000"), levels=c("*","**","***"))
map <- leaflet(Allston) %>% addTiles() %>%
  addAwesomeMarkers(~Longitude, ~Latitude, icon=icons, label=~as.character(ViolLevel)) %>%
  addLegend("topleft", pal=pal, values = ~Allston$ViolLevel, title = "Violation Level") %>%
  setView(-71.13, 42.35, zoom = 15)

mapshot(map,file="mymap.png")
knitr::include_graphics("mymap.png")
```

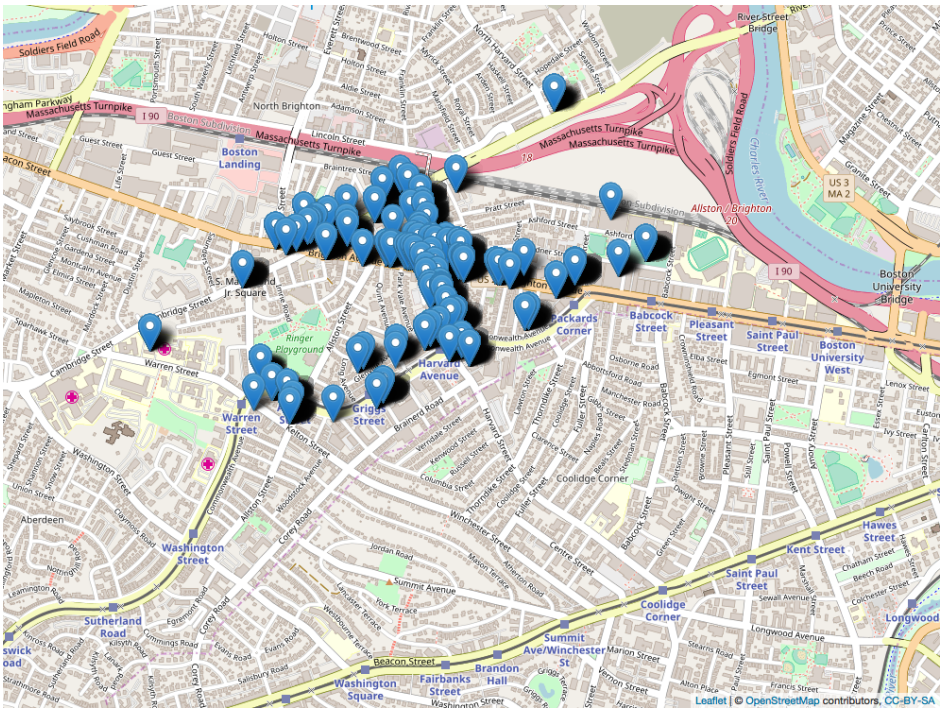


Using Leaflet 2

```
library(leaflet)
map2 <- Allston[, c("Latitude", "Longitude")]%>%
  leaflet()%>%
```

```
  addTiles()%>%
  addMarkers()%>%
  setView(-71.13, 42.35, zoom = 15)

mapshot(map2,file="mymap2.png")
knitr::include_graphics("mymap2.png")
```



shiny(will not include in this report)