R Markdown and Leaflet

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Introduction

Leaflet is one of the most popular Javascript libraries for creating interactive maps. The leaflet R package allows you to create your own leaflet maps without needing to know any Javascript!

Installation

```
install.packages("leaflet")
```

My First Map

Getting started with leaflet is easy. The `leaflet()` function creates a map widget that you can store in a variable so that you can modify the map later on. You can add features to the map using the pipe operator (`%>%`) just like in dplyr. The `addTiles()` function adds mapping data from Open Street Map (http://www.openstreetmap.org/).

```
library(leaflet)
my_map <- leaflet() %>%
  addTiles()
my_map
```

My First Map

Adding Markers

You can add markers to your map one at a time using the `addMarkers()` function by specifying the longitude and latitude. (Here's (https://twitter.com/drob/status/719927537330040832) a tip if you tend to mix them up.) You can specify popup text for when you click on the marker with the `popup` argument.

```
library(leaflet)
my_map <- my_map %>%
  addMarkers(lat=25.03374, lng=121.56480,
             popup="Taipei 101 Building")
my_map
```

Adding Markers

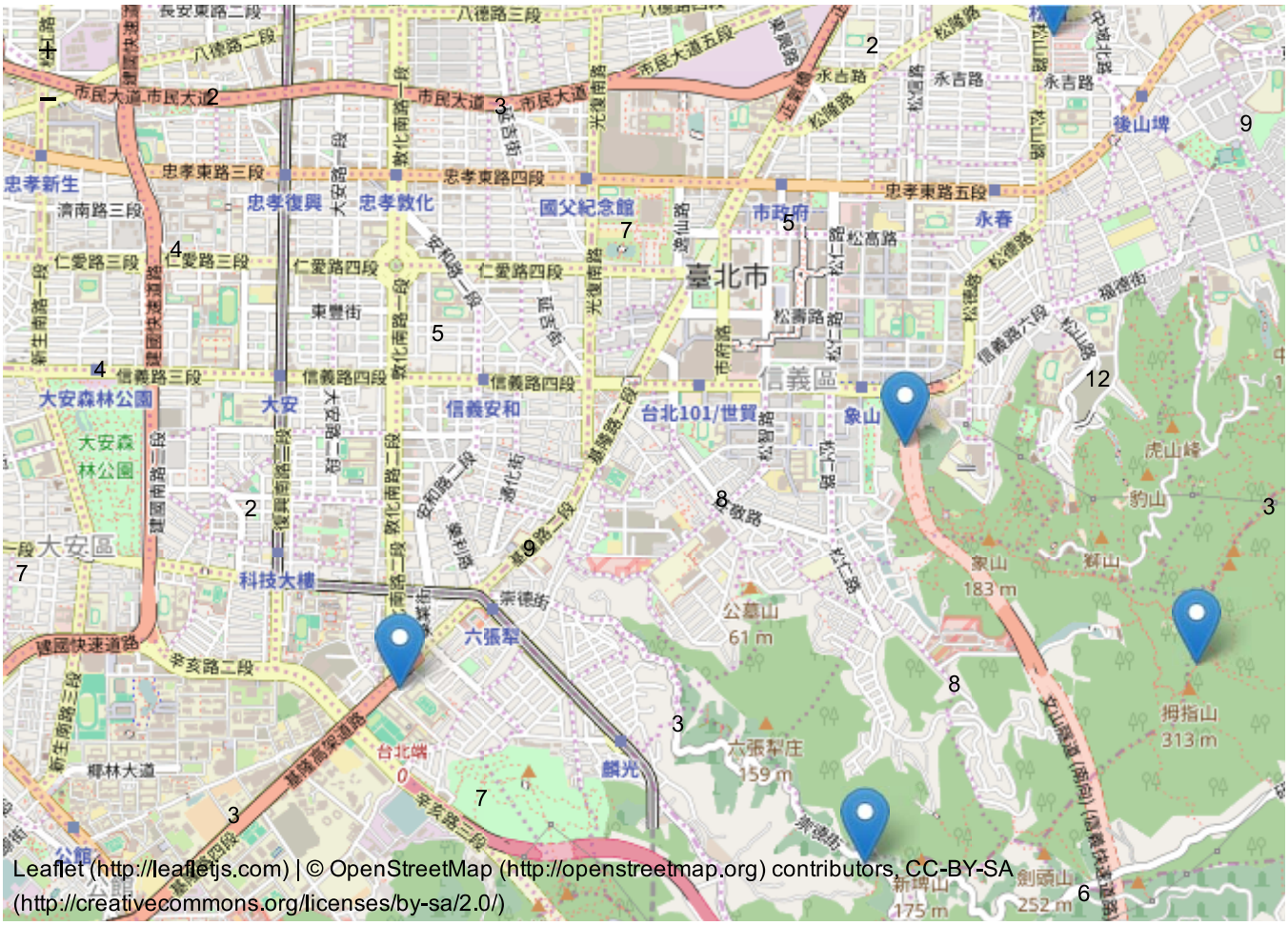
Mapping Clusters

Sometimes you might have so many points on a map that it doesn't make sense to plot every marker. In these situations leaflet allows you to plot clusters of markers using `addMarkers(clusterOptions = markerClusterOptions())`. When you zoom in to each cluster, the clusters will separate until you can see the individual markers.

```
df <- data.frame(lat = runif(500, min = 24.98, max = 25.08),
                 lng = runif(500, min = 121.51, max = 121.61))
df %>%
  leaflet() %>%
  addTiles() %>%
  addMarkers(clusterOptions = markerClusterOptions())
```

Mapping Clusters

```
## Warning in runif(500, min = 24.98, max = 25.08): '.Random.seed' is not an
## integer vector but of type 'NULL', so ignored
```



Conclusion

For more details about the leaflet package for R visit http://rstudio.github.io/leaflet/ (http://rstudio.github.io/leaflet/).