

r-map

지도 그리기를 위한 패키지

```
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)
library(data.table)
```

구글맵으로 지명과 위경도 확인

geocode() 함수를 이용하면 서울이나 대전과 같은 지명으로 위경도를 얻을 수 있다.

```
geocode('Seoul', source='google')

## Source : https://maps.googleapis.com/maps/api/geocode/json?address=Seoul

##      lon      lat
## 1 126.978 37.56654

geocode('Daejeon', source='google')

## Source : https://maps.googleapis.com/maps/api/geocode/json?address=Daejeon

##      lon      lat
## 1 127.3845 36.35041
```

데이터프레임으로 한꺼번에 여러 지명들 저장하고 위경도 얻기

```
city_df = data.frame(city = c('서울', '부산', '대전'), stringsAsFactors = F)
city_df$city = enc2utf8(city_df$city)
city_df
```

```
## city
## 1 서울
## 2 부산
## 3 대전

city_lonlat = mutate_geocode(city_df, city, source = 'google')

## Source : https://maps.googleapis.com/maps/api/geocode/json?address=%EC%84%9C%EC%9A%B8

## Source : https://maps.googleapis.com/maps/api/geocode/json?address=%EB%B6%80%EC%82%B0

## Source : https://maps.googleapis.com/maps/api/geocode/json?address=%EB%8C%80%EC%A0%84

city_lonlat

## city lon lat
## 1 서울 126.9780 37.56654
## 2 부산 129.0756 35.17955
## 3 대전 127.3845 36.35041
```

지하철명으로 구글맵에서 표시하기

구글맵에서 지하철역 이름 지도에 표시하기

```
seoul_map <- qmap('Seoul', zoom = 12, source = 'stamen', maptype = 'toner')

## Source : https://maps.googleapis.com/maps/api/staticmap?center=Seoul&zoom=12&size=640x640&scale=2&maptype=terrain

## Source : https://maps.googleapis.com/maps/api/geocode/json?address=Seoul

## Source : http://tile.stamen.com/toner/12/3491/1584.png
## Source : http://tile.stamen.com/toner/12/3492/1584.png
## Source : http://tile.stamen.com/toner/12/3493/1584.png
## Source : http://tile.stamen.com/toner/12/3491/1585.png
## Source : http://tile.stamen.com/toner/12/3492/1585.png
```


대전 타슈 스테이션 qmap() 함수이용하여 지도에 표시하기

```
setwd("/Users/youngseoklee/Dropbox/python-tashu")
tashu_station = read.table("station_utf8.csv", header = TRUE, sep=",", encoding="UTF-8")
#tashu_station_latlon = data.frame(tashu_station$no, tashu_station$lon, tashu_station$lat)
tashu_station_latlon = subset(tashu_station, select=c("no", "lon", "lat"))

daejon_map <- qmap('Daejon', zoom = 13, source = 'stamen', maptype = 'toner')

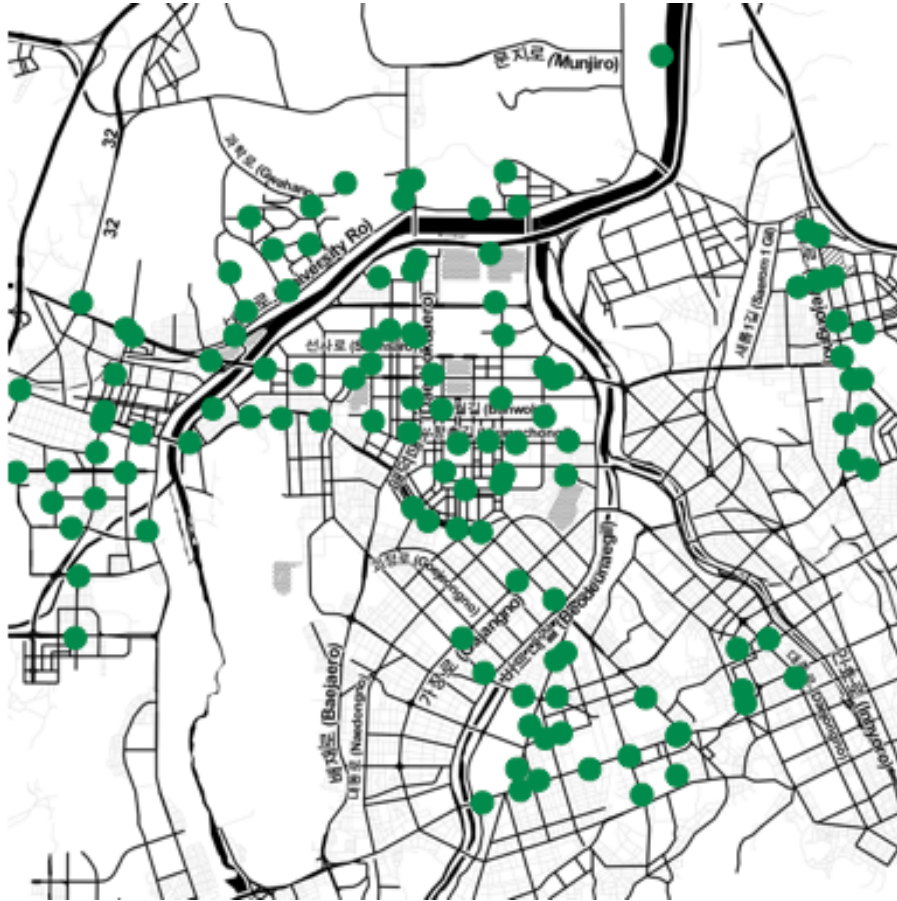
## Source : https://maps.googleapis.com/maps/api/staticmap?center=Daejon&zoom=13&size=640x640&scale=2&maptype=terrain

## Source : https://maps.googleapis.com/maps/api/geocode/json?address=Daejon

## Source : http://tile.stamen.com/toner/13/6993/3205.png
## Source : http://tile.stamen.com/toner/13/6994/3205.png
## Source : http://tile.stamen.com/toner/13/6995/3205.png
## Source : http://tile.stamen.com/toner/13/6993/3206.png
## Source : http://tile.stamen.com/toner/13/6994/3206.png
## Source : http://tile.stamen.com/toner/13/6995/3206.png
## Source : http://tile.stamen.com/toner/13/6993/3207.png
## Source : http://tile.stamen.com/toner/13/6994/3207.png
## Source : http://tile.stamen.com/toner/13/6995/3207.png
## Source : http://tile.stamen.com/toner/13/6993/3208.png
## Source : http://tile.stamen.com/toner/13/6994/3208.png
## Source : http://tile.stamen.com/toner/13/6995/3208.png

daejon_map +
  geom_point(data = tashu_station_latlon, aes(tashu_station_latlon$lon, tashu_station_latlon$lat), size = 3, colour='#018b4d')

## Warning: Removed 26 rows containing missing values (geom_point).
```



대전 타슈 스테이션 ggmap() 함수 이용하여 지도에 표시하기

```
daejon_gc <- geocode('Daejon')
```

```
## Source : https://maps.googleapis.com/maps/api/geocode/json?address=Daejon
```

```
daejon_cent <- as.numeric(daejon_gc)
```

```
ggmap(get_googlemap(center=daejon_cent, scale = 2, maptype = "roadmap", zoom=13))
```

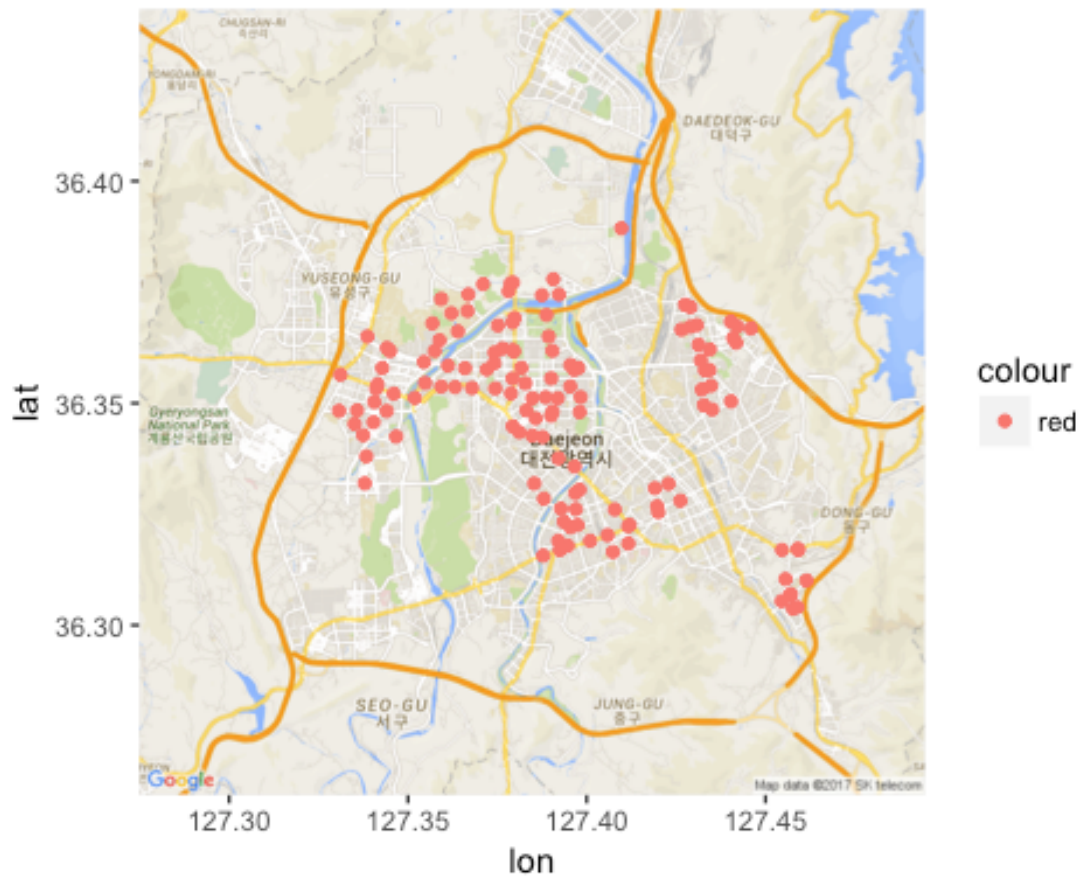
```
## Source : https://maps.googleapis.com/maps/api/staticmap?center=36.350412,127.384547&zoom=13&size=640x640&scale=2&maptype=roadmap
```



```
ggmap(get_googlemap(center=daejeon_cent, scale = 1, maptype = "roadmap", zoom=12)) +
geom_point(aes(x = lon, y = lat, colour = "red"), data = tashu_station_latlon)
```

```
## Source : https://maps.googleapis.com/maps/api/staticmap?center=36.350412,127.384547&zoom=12&size=640x640&scale=1&maptype=roadmap
```

```
## Warning: Removed 10 rows containing missing values (geom_point).
```

```
library(mapproj)

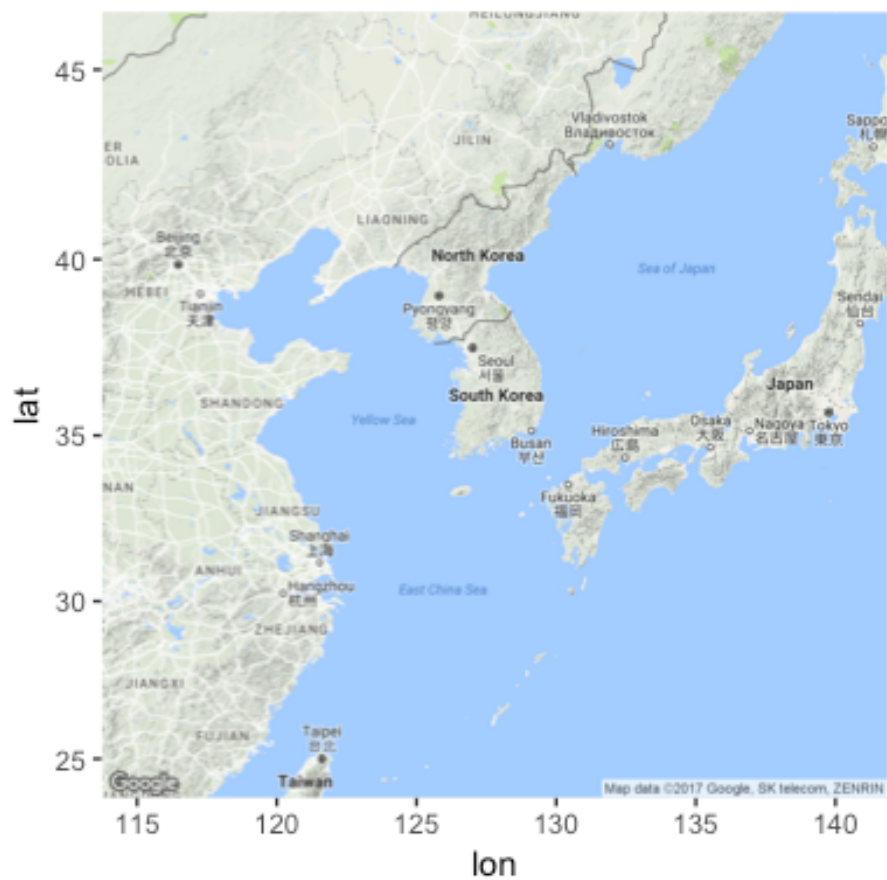
## Loading required package: maps

map <- get_map(location = 'Korea', zoom = 5)

## Source : https://maps.googleapis.com/maps/api/staticmap?center=Korea&zoom=5&size=640x640&scale=2&maptype=terrain&language=en-EN

## Source : https://maps.googleapis.com/maps/api/geocode/json?address=Korea

ggmap(map)
```



```
map <- get_map(location = 'Asia', zoom = 3)

## Source : https://maps.googleapis.com/maps/api/staticmap?center=Asia&zo
om=3&size=640x640&scale=2&maptype=terrain&language=en-EN

## Source : https://maps.googleapis.com/maps/api/geocode/json?address=Asi
a

ggmap(map)
```