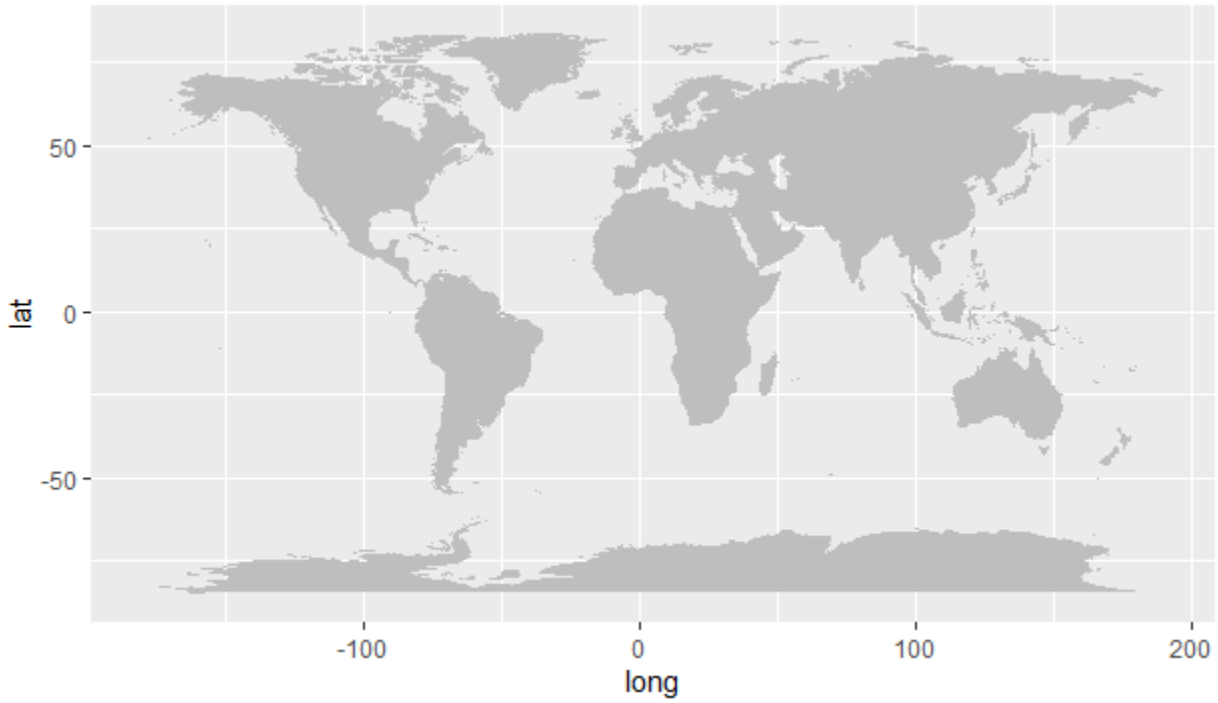
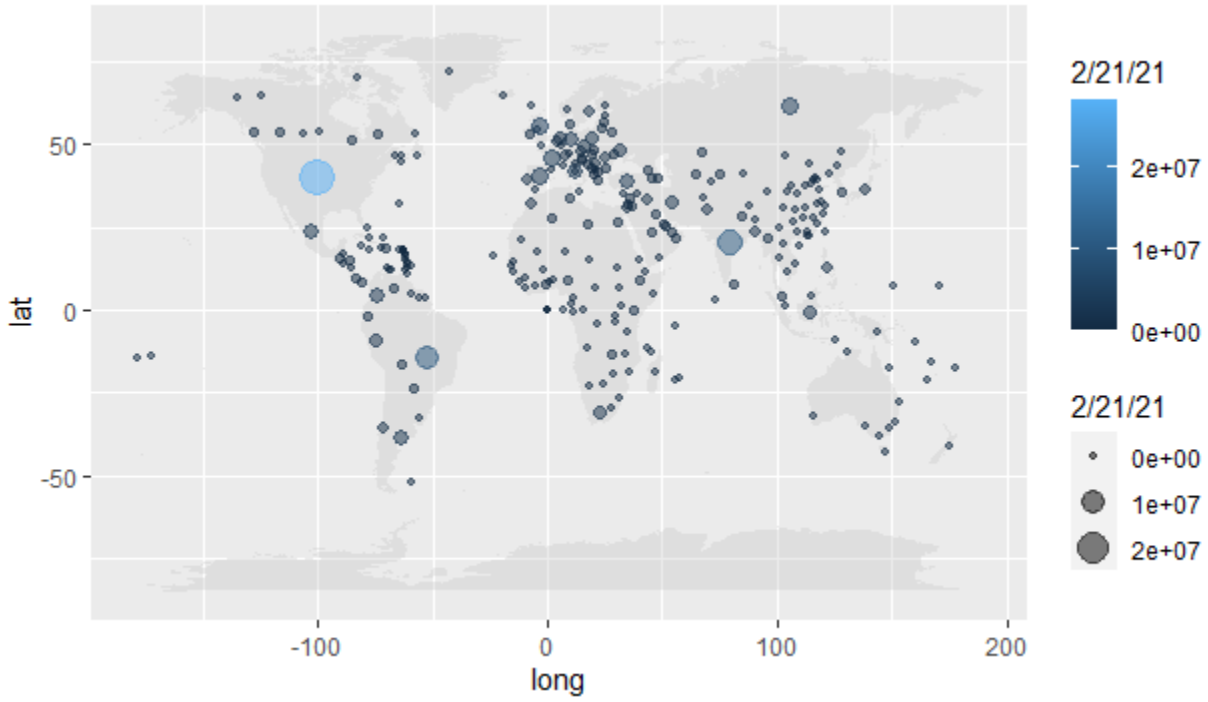
```
> #加载几个必要的的R包
> library(tidyverse)
> library(ggplot2)
> library(maps)
> library(viridis)
> library(readr)

> #下载数据
> Confirmed <-
read_csv(url("https://raw.githubusercontent.com/CSSEGISandData/COVID-19/master/csse_covid_19_data/csse_covid_19_time_series/time_series_covid19_confirmed_global.csv"))

-- Column specification --------------------------------------------------------
cols(
  .default = col_double(),
  `Province/State` = col_character(),
  `Country/Region` = col_character()
)
i Use `spec()` for the full column specifications.

> #查看最新的数据
> select(Confirmed,tail(names(Confirmed),1))
# A tibble: 273 x 1
   `2/21/21`
       <dbl>
 1     55604
 2    100246
 3    111917
 4     10699
 5     20519
 6       598
 7   2064334
 8    170402
 9       118
10      5150
# ... with 263 more rows
```

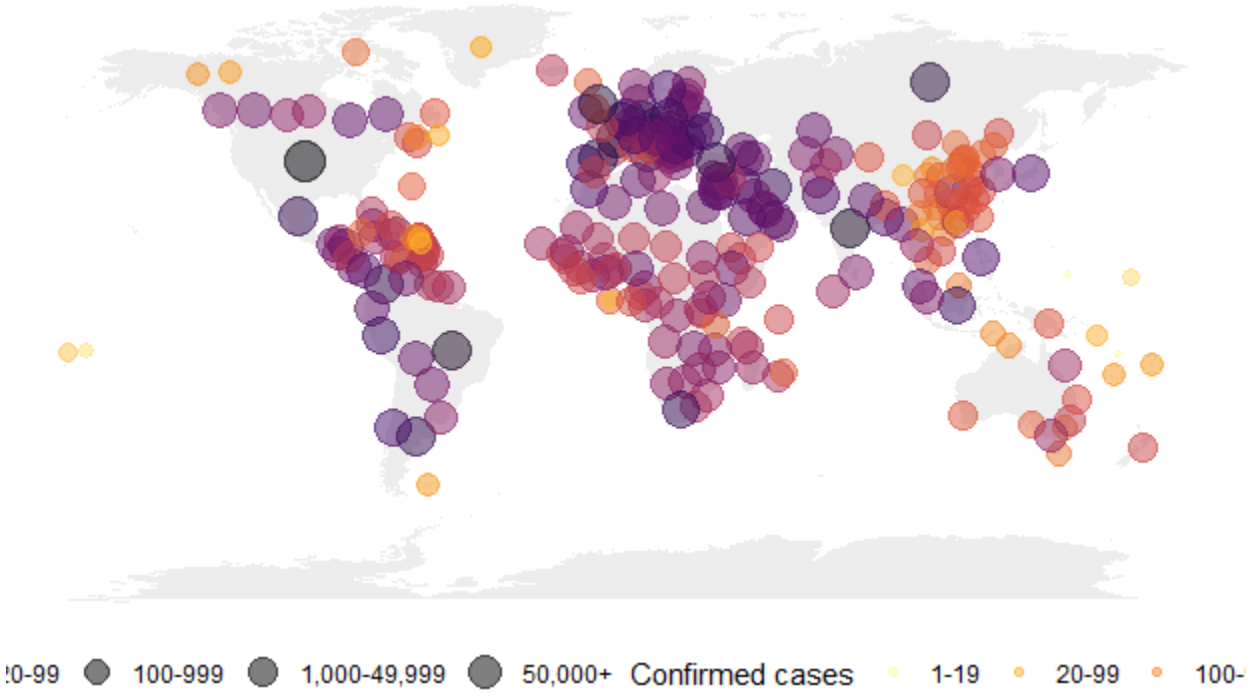
```
> #加载世界地图
> world <- map_data("world")
> ggplot() + geom_polygon(data=world, aes(x=long, y=lat, group=group), fill="grey")
```



```
> #开始作图了
> #粗略做出效果
> ggplot()+
+   geom_polygon(data=world,aes(x=long,y=lat,group=group),fill="grey",alpha=0.3) +
+   geom_point(data=Confirmed,aes(x=Long,y=Lat,size=`2/21/21`,color=`2/21/21`),alpha=0.5)
Warning message:
Removed 1 rows containing missing values (geom_point).
```

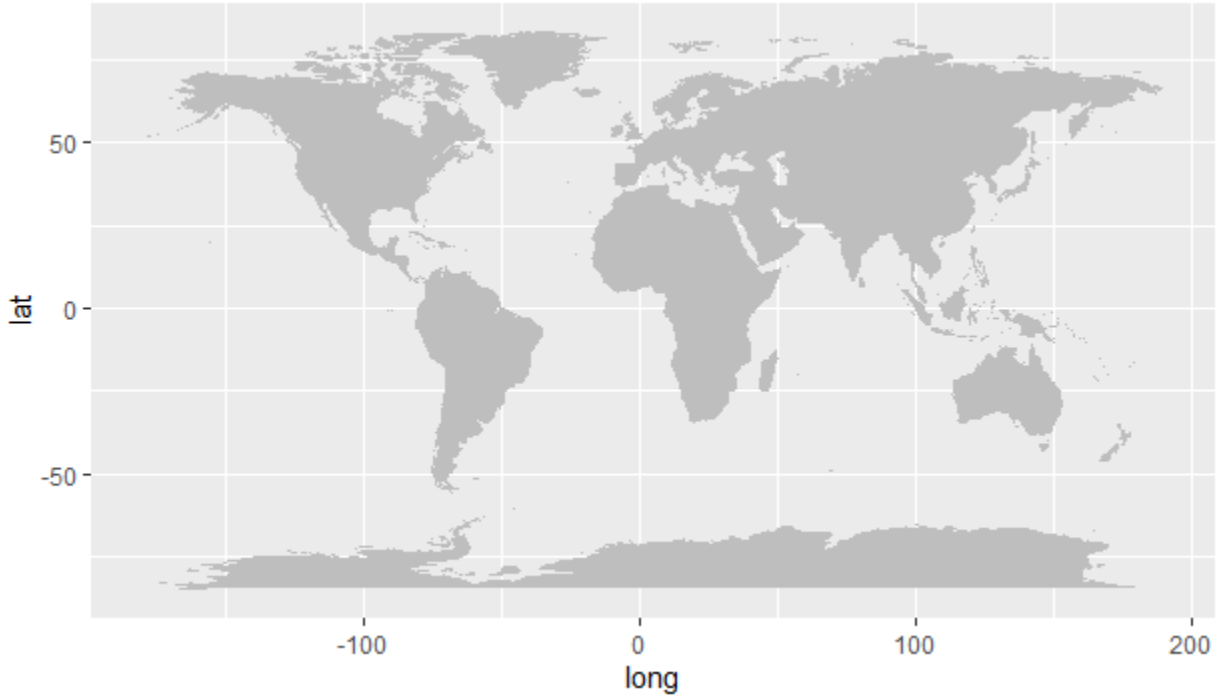


```
> #细调参数进行美化
> mybreaks<- c(1, 20, 100, 1000, 50000)
> mylabels<- c("1-19", "20-99", "100-999","1,000-49,999", "50,000+")
> ggplot() +
+   geom_polygon(data=world, aes(x=long, y=lat,group=group), fill="grey", alpha=0.3) +
+   geom_point(data=Confirmed, aes(x=Long, y=Lat,size=`2/21/21`, color=`2/21/21`), alpha=0.5)
+
+   scale_size_continuous(name="Confirmedcases", trans="log", range=c(1,7),
breaks=mybreaks,labels=mylabels) +
+   scale_colour_viridis_c(option="inferno", direction=-1,name="Confirmed cases", trans="log",
breaks=mybreaks,labels=mylabels) +
+   guides(colour=guide_legend()) +
+   theme_void() +
+   theme(legend.position="bottom")
Warning messages:
1: Transformation introduced infinite values in discrete y-axis
2: Transformation introduced infinite values in discrete y-axis
3: In sqrt(x) : 产生了NaNs
4: Removed 2 rows containing missing values (geom_point).
```



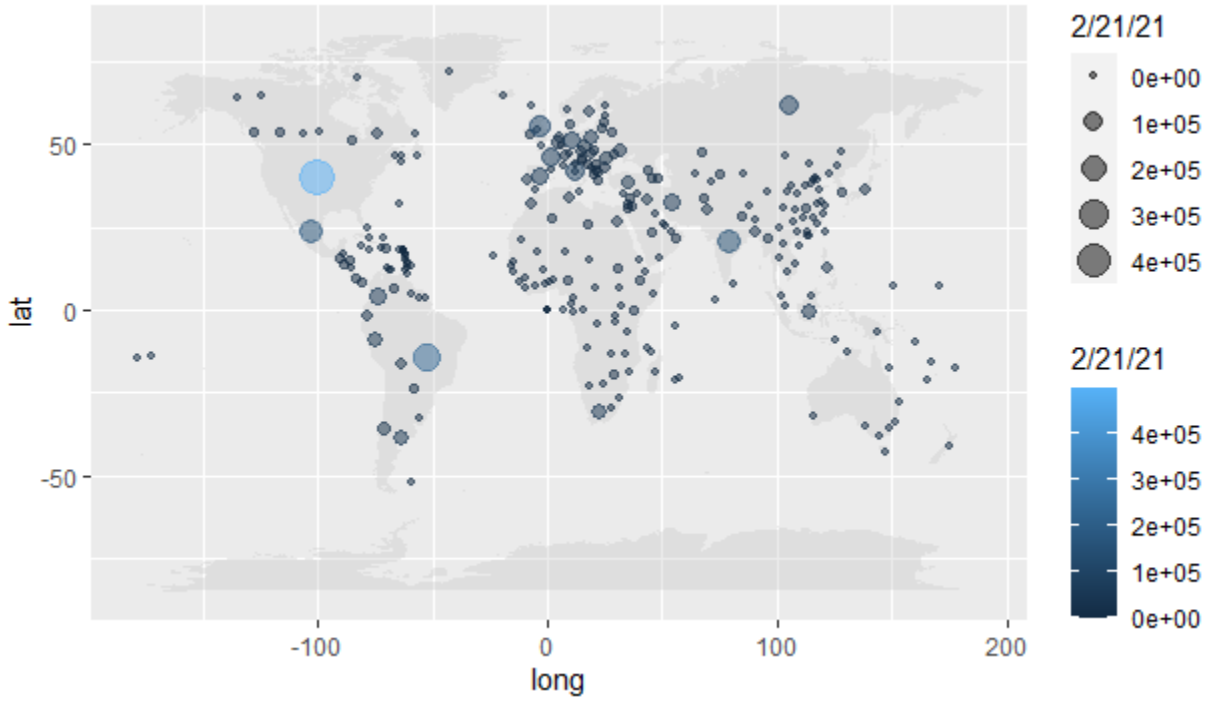
```
> #做死亡病例的地图
> Deaths <-
read_csv(url("https://raw.githubusercontent.com/CSSEGISandData/COVID-19/master/csse_covid_19_data/csse_covid_19_time_series/time_series_covid19_deaths_global.csv"))

-- Column specification --------------------------------------------------------
cols(
  .default = col_double(),
  `Province/State` = col_character(),
  `Country/Region` = col_character()
)
i Use `spec()` for the full column specifications.

> #查看最新的数据
> select(Deaths,tail(names(Confirmed),1))
# A tibble: 273 x 1
   `2/21/21`
       <dbl>
 1      2432
 2      1666
 3      2961
 4       107
 5       499
 6        13
 7     51198
 8      3164
 9         3
10        54
# ... with 263 more rows
```

```
> #加载世界地图
> world <- map_data("world")
> ggplot() + geom_polygon(data=world, aes(x=long, y=lat, group=group), fill="grey")
```

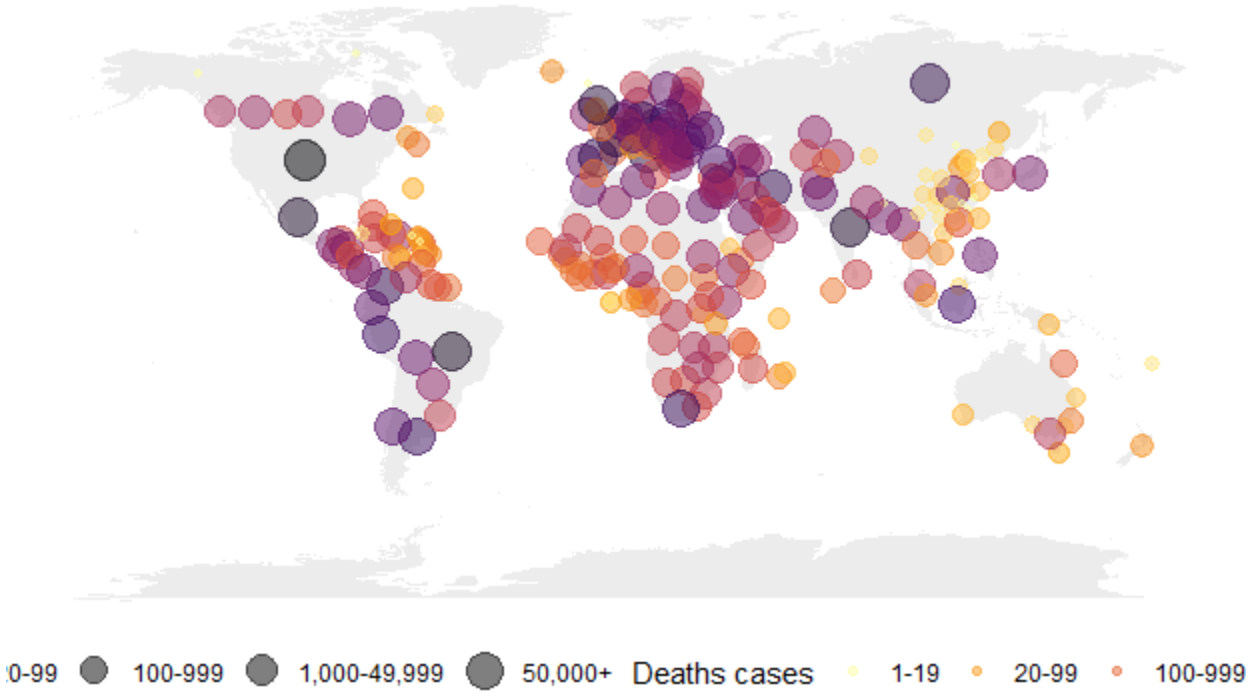


#开始作图了
#粗略做出效果

```
ggplot()+
  geom_polygon(data=world,aes(x=long,y=lat,group=group),fill="grey",alpha=0.3) +
  geom_point(data=Deaths,aes(x=Long,y=Lat,size=`2/21/21`,color=`2/21/21`),alpha=0.5)
```

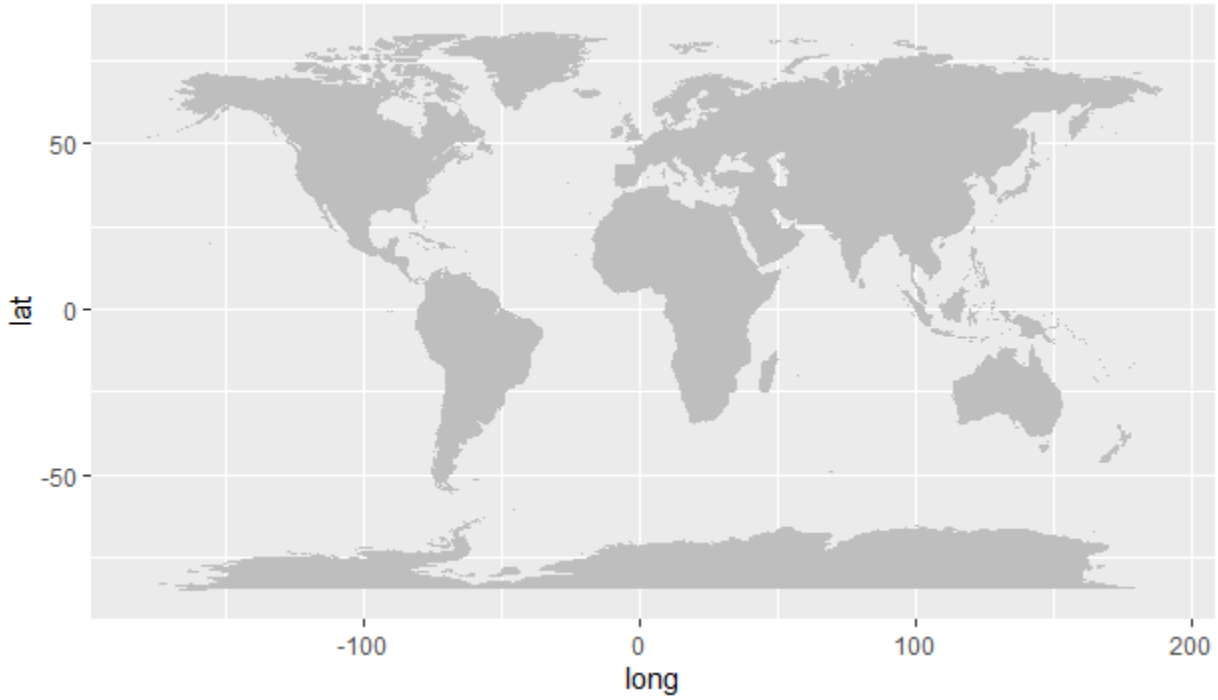


```
> #细调参数进行美化
> mybreaks<- c(1, 20, 100, 1000, 50000)
> mylabels<- c("1-19", "20-99", "100-999","1,000-49,999", "50,000+")
> ggplot() +
+   geom_polygon(data=world, aes(x=long, y=lat,group=group), fill="grey", alpha=0.3) +
+   geom_point(data=Deaths, aes(x=Long, y=Lat,size=`2/21/21`, color=`2/21/21`), alpha=0.5) +
+   scale_size_continuous(name="Deathscases", trans="log", range=c(1,7),
breaks=mybreaks,labels=mylabels) +
+   scale_colour_viridis_c(option="inferno", direction=-1,name="Deaths cases", trans="log",
breaks=mybreaks,labels=mylabels) +
+   guides(colour=guide_legend()) +
+   theme_void() +
+   theme(legend.position="bottom")
Warning messages:
1: Transformation introduced infinite values in discrete y-axis
2: Transformation introduced infinite values in discrete y-axis
3: In sqrt(x) : 产生了NaNs
4: Removed 28 rows containing missing values (geom_point).
```

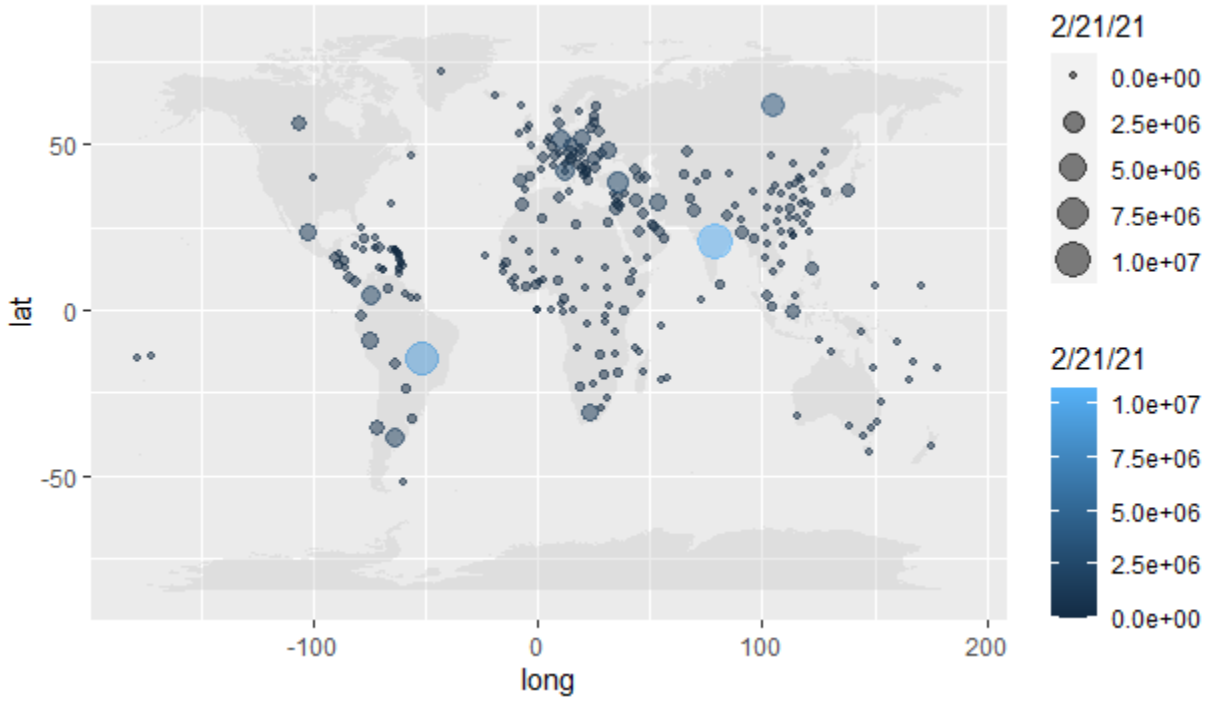


```
> #做治愈病例的地图
> Recovered
<-read_csv(url("https://raw.githubusercontent.com/CSSEGISandData/COVID-19/master/csse_covid_19_data/csse_covid_19_time_series/time_series_covid19_recovered_global.csv"))

-- Column specification --------------------------------------------------------
cols(
  .default = col_double(),
  `Province/State` = col_character(),
  `Country/Region` = col_character()
)
i Use `spec()` for the full column specifications.

> #查看最新的数据
> select(Recovered,tail(names(Confirmed),1))
# A tibble: 258 x 1
   `2/21/21`
       <dbl>
 1     48834
 2     63329
 3     77076
 4     10206
 5     19013
 6       218
 7   1866501
 8    161994
 9       115
10         0
# ... with 248 more rows
```

```
> #加载世界地图
> world <- map_data("world")
> ggplot() + geom_polygon(data=world, aes(x=long, y=lat, group=group), fill="grey")
```



```
> #开始作图了
> #粗略做出效果
> ggplot()+
+   geom_polygon(data=world,aes(x=long,y=lat,group=group),fill="grey",alpha=0.3) +
+   geom_point(data=Recovered,aes(x=Long,y=Lat,size=`2/21/21`,color=`2/21/21`),alpha=0.5)
```



```
> #细调参数进行美化
> mybreaks<- c(1, 20, 100, 1000, 50000)
> mylabels<- c("1-19", "20-99", "100-999","1,000-49,999", "50,000+")
> ggplot() +
+   geom_polygon(data=world, aes(x=long, y=lat,group=group), fill="grey", alpha=0.3) +
+   geom_point(data=Recovered, aes(x=Long, y=Lat,size=`2/21/21`, color=`2/21/21`),
alpha=0.5) +
+   scale_size_continuous(name="Recoveredcases", trans="log", range=c(1,7),
breaks=mybreaks,labels=mylabels) +
+   scale_colour_viridis_c(option="inferno", direction=-1,name="Recovered cases", trans="log",
breaks=mybreaks,labels=mylabels) +
+   guides(colour=guide_legend()) +
+   theme_void() +
+   theme(legend.position="bottom")
Warning messages:
1: Transformation introduced infinite values in discrete y-axis
2: Transformation introduced infinite values in discrete y-axis
3: In sqrt(x) : 产生了NaNs
4: Removed 7 rows containing missing values (geom_point).
```