Ggplot2 en map

```
# Tout d'abord nous devons installer le package Ggplot avec ce package
#   Install.packages(ggplot2)
#Pour commencer
library(ggplot2)
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
```

```
#installed.packages("viridis")
require(maps)
```

```
## Loading required package: maps
```

```
require(viridis)
```

```
## Loading required package: viridis
```

```
## Loading required package: viridisLite
```

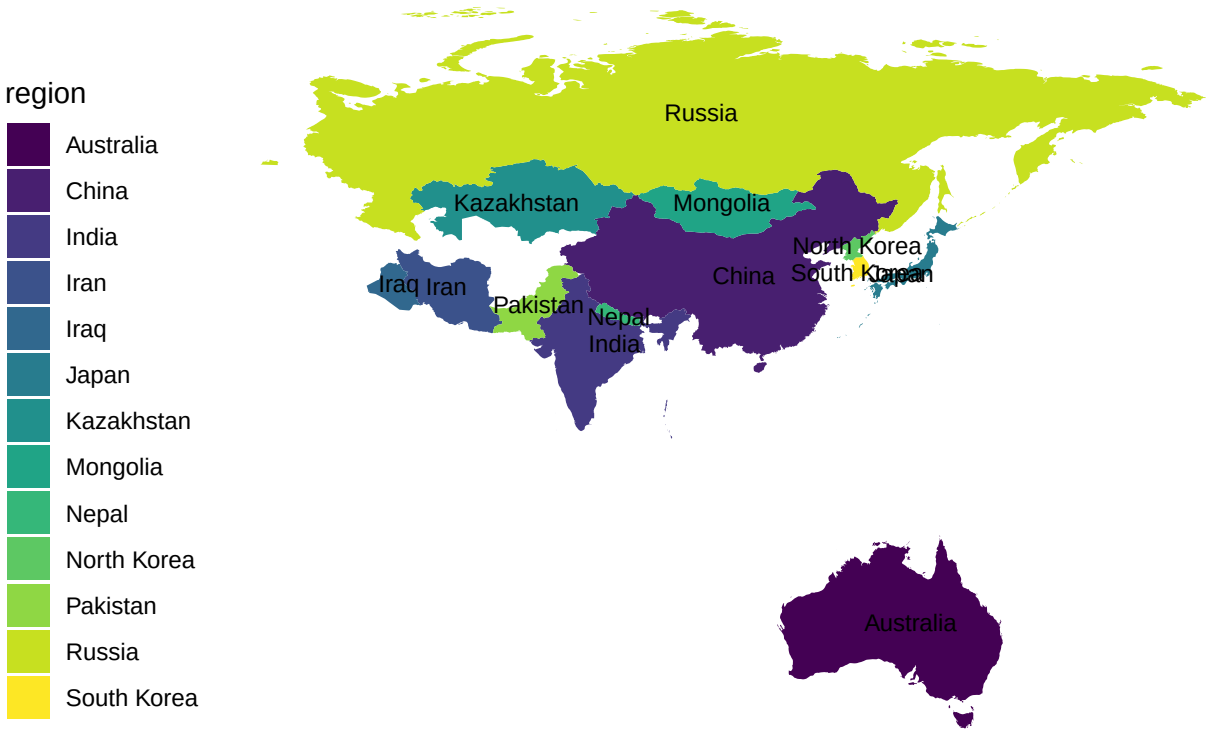
```
theme_set(
  theme_void()
)
monde_map <- map_data("world")
ggplot(monde_map, aes(x = long, y = lat, group = group)) + geom_polygon(fill="lightgray", colour = "whi
```

```r
# Afficher quelque pays de l'Asie
some.asie.countries <- c(
  "Russia", "China", "Iran", "Mongolia", "India",
  "Australia", "Kazakhstan", "North Korea", "South Korea",
  "Nepal", "Pakistan","Japan","Iraq"
)
#Nous pouvons ajouter autant d'etat que possible a la carte d'adapte grace aux noms des pays exemple :
# Recuperer la map
some.asie.maps <- map_data("world", region = some.asie.countries)

# Utilisé comme coordonnée étiquette pour les noms de pays
region.lab.data <- some.asie.maps %>%
  group_by(region) %>%
  summarise(long = mean(long), lat = mean(lat))
```

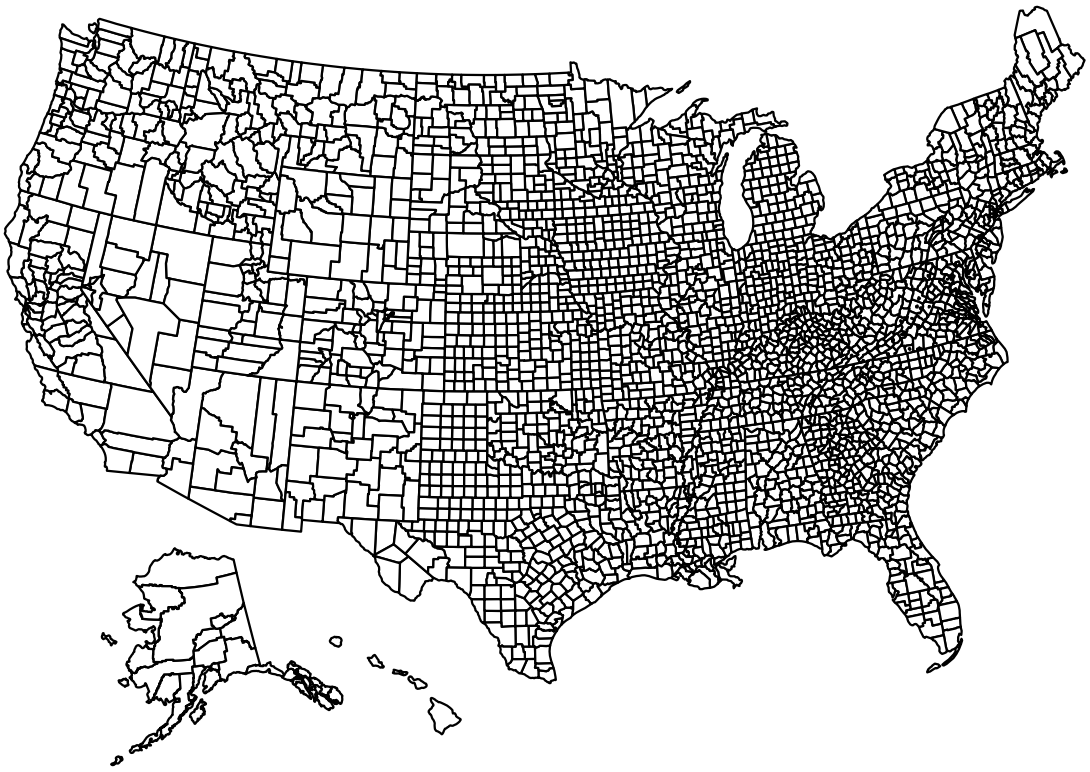
```
## `summarise()` ungrouping output (override with `.groups` argument)
```

```r
ggplot(some.asie.maps, aes(x = long, y = lat)) +
  geom_polygon(aes( group = group, fill = region))+
  geom_text(aes(label = region), data = region.lab.data,  size = 3, hjust = 0.5)+
  scale_fill_viridis_d()+
  theme_void()+
  theme(legend.position = "left") # <- permet de choisir la taille des noms des pays, de regrouper les
```

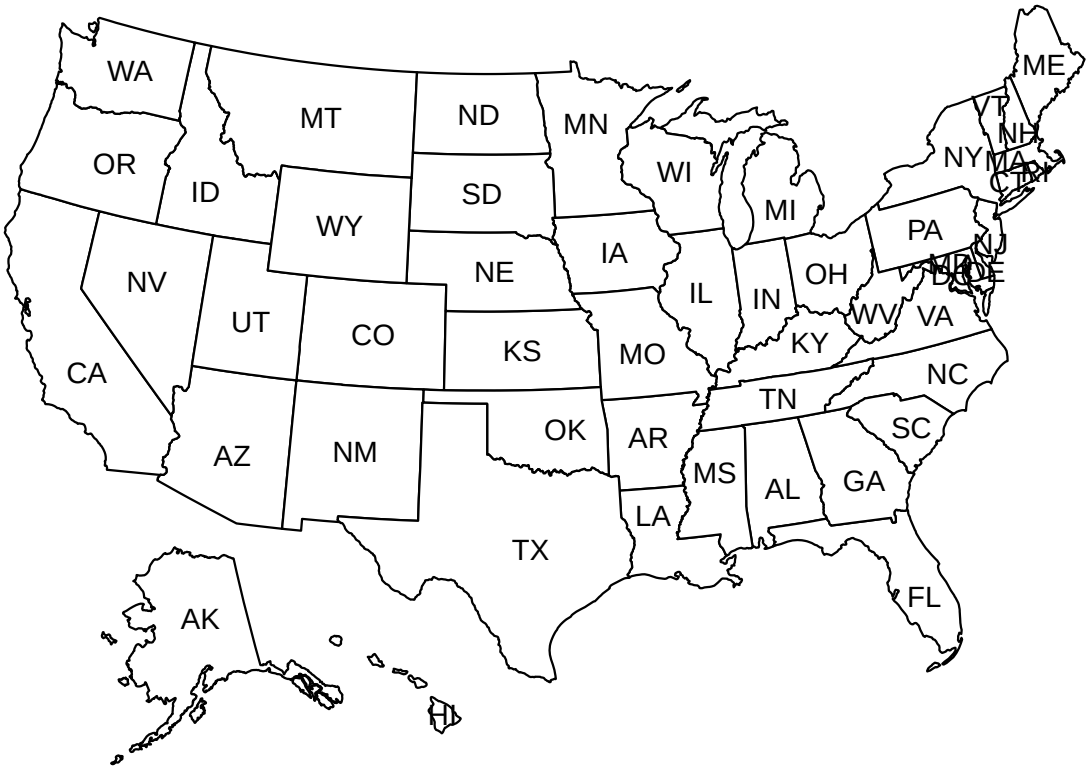



```
#Autre exemple mais sans utiliser la geolocalisation
#Il faut installer les packages suivant
#install.packages('usmap')
#install.packages('label')
#install.packages('maptools')
#install.packages('rgdal')
library(usmap)
require(usmap)

#Permet d'afficher l'ensemble du pays
plot_usmap(regions = "counties")
```



```
usmap::plot_usmap("states", labels = TRUE)
```



```r
cities_t <- usmap_transform(citypop)
#Permet d'afficher un ou plusieurs Etat aux USA grace à l'acronym de l'etat
usmap::plot_usmap("counties",
                  include = c("MA","CT"),
                  labels = TRUE, label_color = "black")
```

Bibliographie

Map Etats-Unis grace à la long et lat https://www.datanovia.com/en/blog/how-to-create-a-map-using-ggplot2/

Etat-Unis map https://cran.r-project.org/web/packages/usmap/vignettes/advanced-mapping.html

Acronym Etats-unis : https://www.ssa.gov/international/coc-docs/states.html