Corona

Claudius Taylor

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```
data("coronavirus")
corona <- coronavirus
head(corona, 15)
```

```
## # A tibble: 15 x 7
##    Province.State Country.Region   Lat  Long date       cases type
##    <chr>          <chr>          <dbl> <dbl> <date>     <int> <chr>
##  1 ""             Japan           35.7  140. 2020-01-22     2 confirmed
##  2 ""             South Korea     37.6  127. 2020-01-22     1 confirmed
##  3 ""             Thailand        13.8  101. 2020-01-22     2 confirmed
##  4 Anhui          Mainland China  31.8  117. 2020-01-22     1 confirmed
##  5 Beijing        Mainland China  40.2  116. 2020-01-22    14 confirmed
##  6 Chongqing      Mainland China  30.1  108. 2020-01-22     6 confirmed
##  7 Fujian         Mainland China  26.1  118. 2020-01-22     1 confirmed
##  8 Guangdong      Mainland China  23.3  113. 2020-01-22    26 confirmed
##  9 Guangxi        Mainland China  23.8  109. 2020-01-22     2 confirmed
## 10 Guizhou        Mainland China  26.8  107. 2020-01-22     1 confirmed
## 11 Hainan         Mainland China  19.2  110. 2020-01-22     4 confirmed
## 12 Hebei          Mainland China  38.0  115. 2020-01-22     1 confirmed
## 13 Henan          Mainland China  33.9  114. 2020-01-22     5 confirmed
## 14 Hubei          Mainland China  31.0  112. 2020-01-22   444 confirmed
## 15 Hunan          Mainland China  27.6  112. 2020-01-22     4 confirmed
```

```
tail(corona, 15)
```

```
## # A tibble: 15 x 7
##    Province.State Country.Region   Lat  Long date       cases type
##    <chr>          <chr>          <dbl> <dbl> <date>     <int> <chr>
##  1 Hunan          Mainland China  27.6 112.  2020-02-16    39 recovered
##  2 Inner Mongolia Mainland China  44.1 114.  2020-02-16     1 recovered
##  3 Jiangsu        Mainland China  33.0 119.  2020-02-16    32 recovered
##  4 Jiangxi        Mainland China  27.6 116.  2020-02-16    30 recovered
##  5 Jilin          Mainland China  43.7 126.  2020-02-16     4 recovered
##  6 Liaoning       Mainland China  41.3 123.  2020-02-16     9 recovered
##  7 Macau          Macau           22.2 114.  2020-02-16     2 recovered
##  8 Shaanxi        Mainland China  35.2 109.  2020-02-16    11 recovered
##  9 Shandong       Mainland China  36.3 118.  2020-02-16    17 recovered
## 10 Shanghai       Mainland China  31.2 121.  2020-02-16    16 recovered
## 11 Shanxi         Mainland China  37.6 112.  2020-02-16     4 recovered
## 12 Sichuan        Mainland China  30.6 103.  2020-02-16    12 recovered
## 13 Tianjin        Mainland China  39.3 117.  2020-02-16     8 recovered
## 14 Xinjiang       Mainland China  41.1  85.2 2020-02-16     2 recovered
## 15 Zhejiang       Mainland China  29.2 120.  2020-02-16    28 recovered
```

number of recovered cases

```
recovered <- coronavirus %>%
  filter(type == "recovered") %>%
  group_by(Province.State) %>%
  summarise(total = sum(cases)) %>%
  arrange(-total)
recovered
```

```
## # A tibble: 40 x 2
##    Province.State total
##    <chr>          <int>
##  1 Hubei           6639
##  2 Guangdong        465
##  3 Hunan            464
##  4 Zhejiang         456
##  5 Henan            440
##  6 Anhui            255
##  7 Jiangxi          240
##  8 Jiangsu          218
##  9 Chongqing        207
## 10 Shandong         173
## # ... with 30 more rows
```

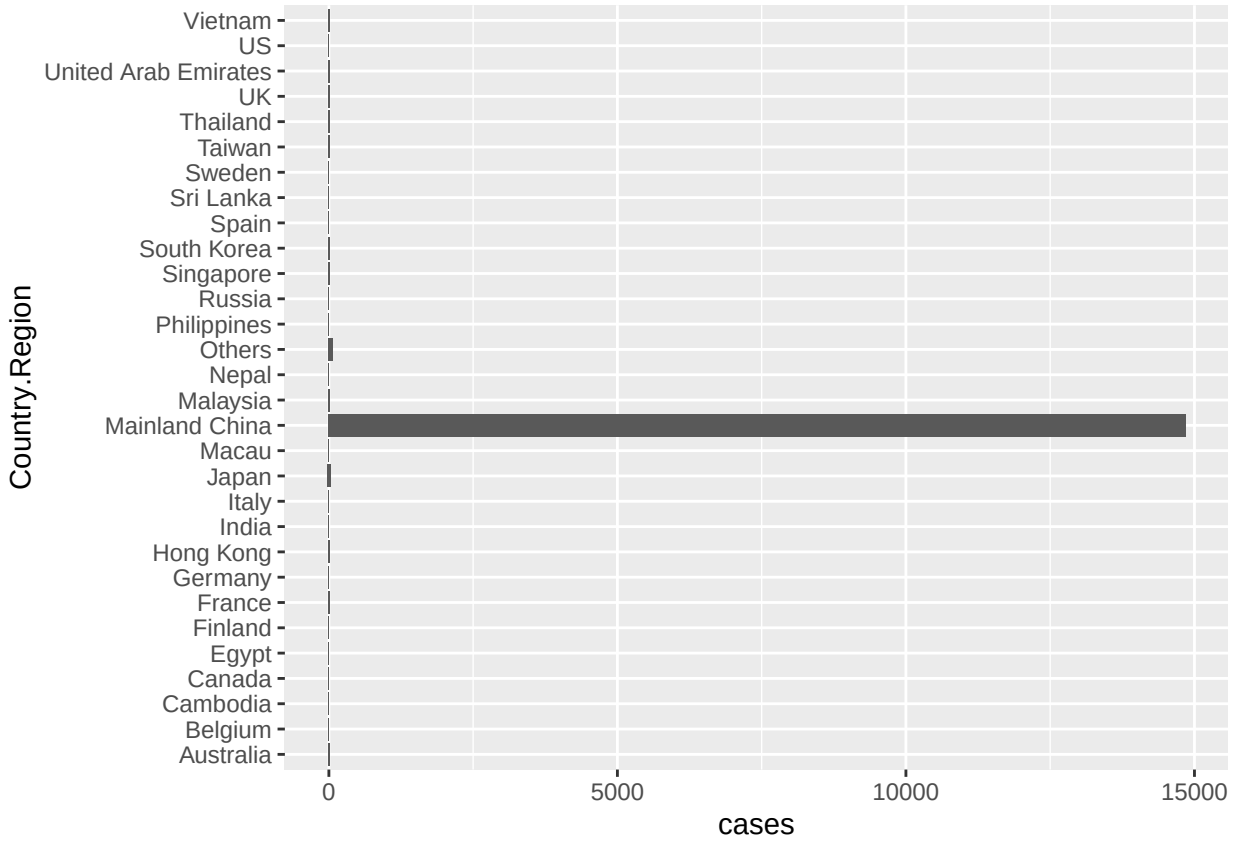
number of confirmed cases

```
confirmed <- coronavirus %>%
  filter(type == "confirmed") %>%
  group_by(Province.State) %>%
  summarise(total = sum(cases)) %>%
  arrange(-total)
confirmed
```

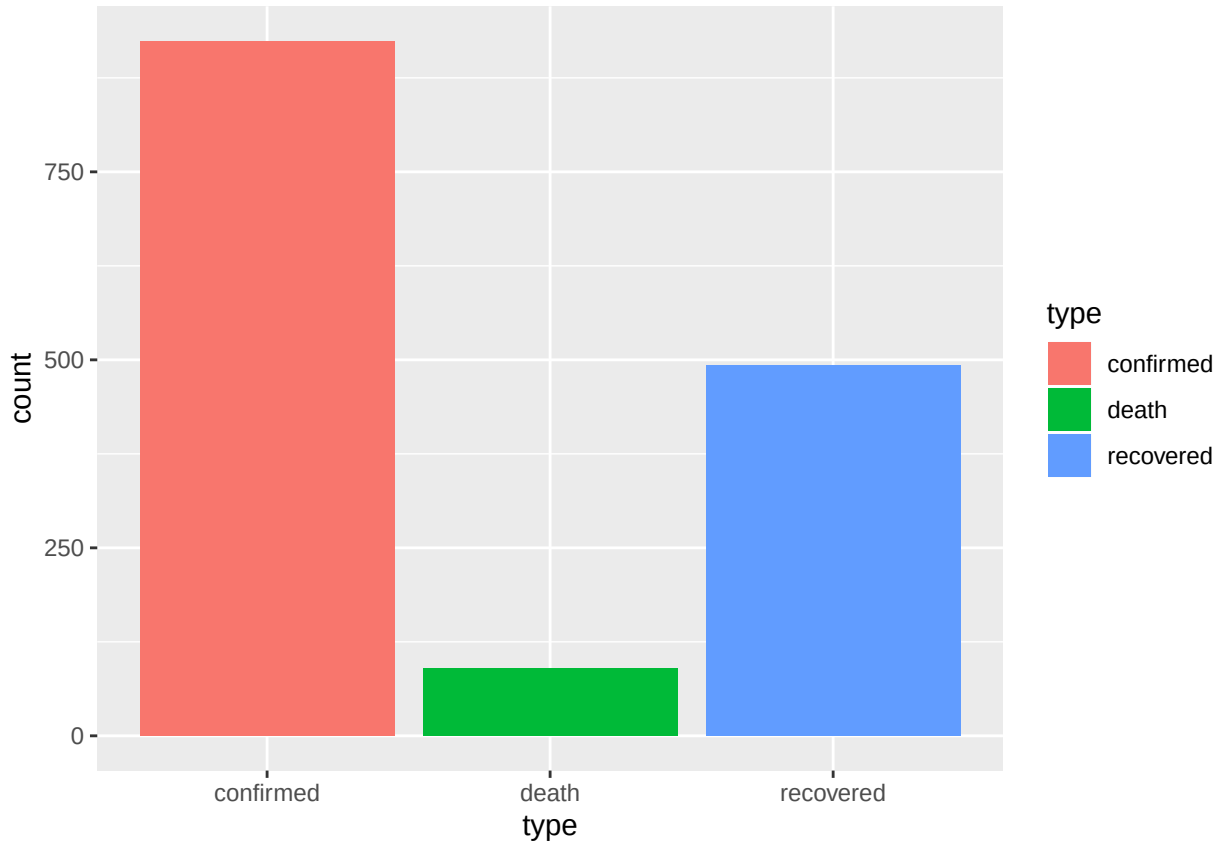
```
## # A tibble: 54 x 2
##    Province.State total
##    <chr>          <int>
##  1 Hubei          58182
##  2 Guangdong       1316
##  3 Henan           1231
##  4 Zhejiang        1167
##  5 Hunan           1004
##  6 Anhui            962
##  7 Jiangxi          925
##  8 Jiangsu          617
##  9 Chongqing        551
## 10 Shandong         537
## # ... with 44 more rows
```

barplots

```
# including mainland china
ggplot(coronavirus, aes(Country.Region, cases)) +
  geom_bar(stat = "identity", position = "identity") +
  coord_flip()
```

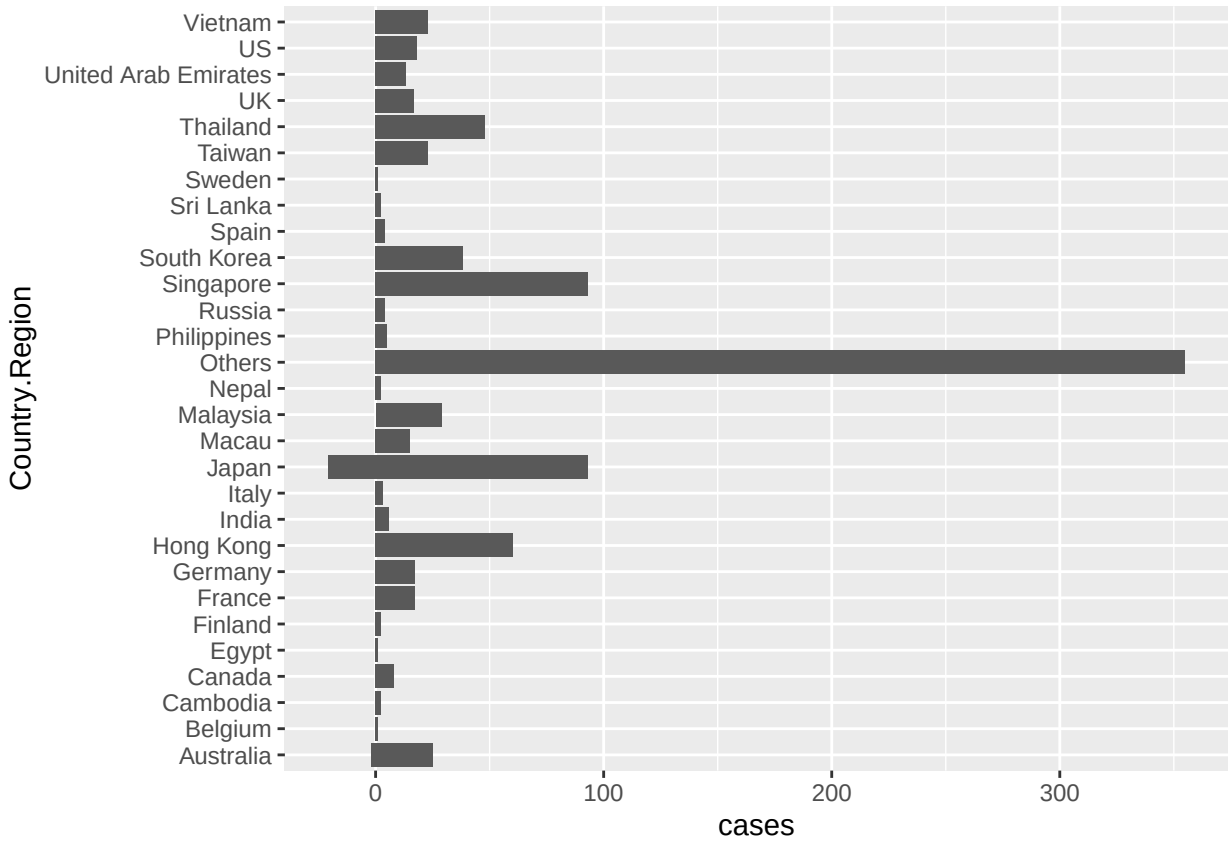



```
ggplot(coronavirus) +
  geom_bar(mapping = aes(x=type, fill = type))
```

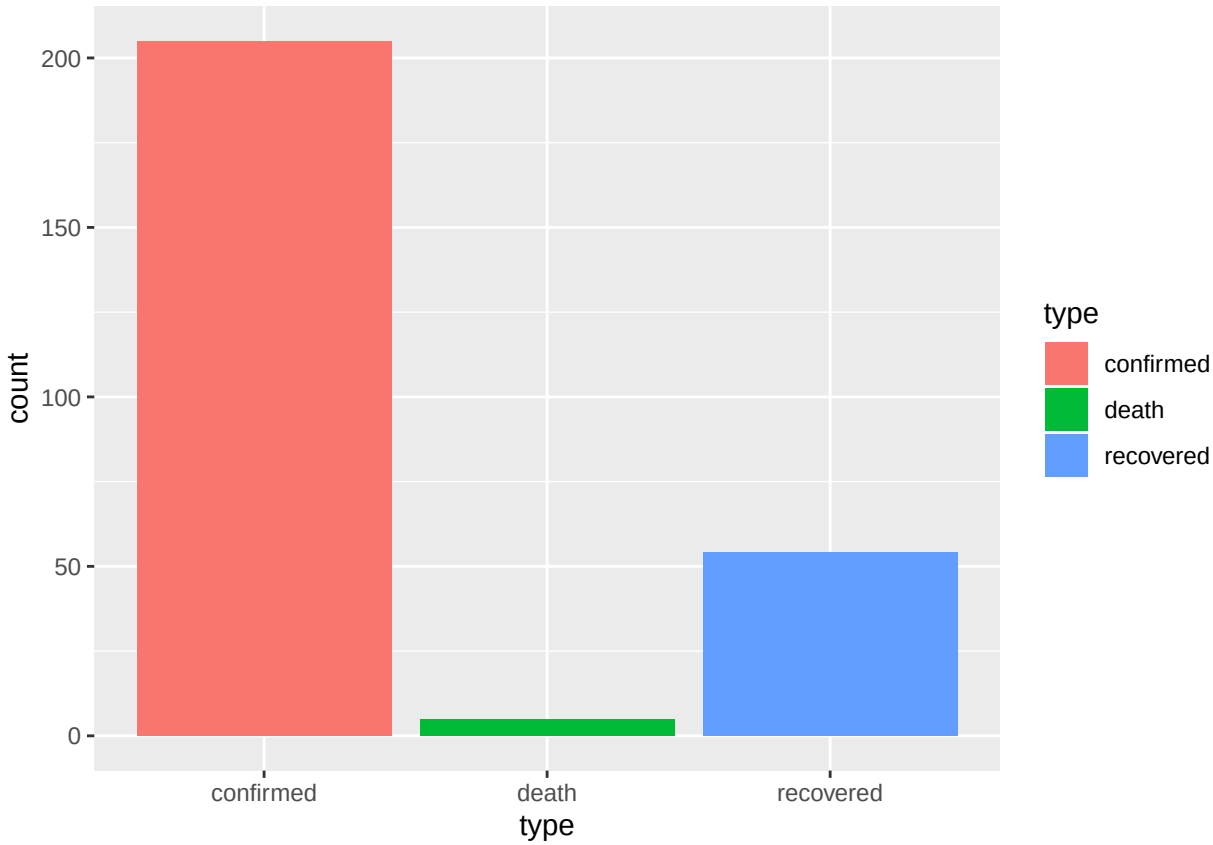



```
# excluding mainland china
not_mc <- filter(coronavirus, Country.Region  != "Mainland China")

ggplot(not_mc, aes(Country.Region, cases)) +
  geom_bar(stat = "identity") +
  coord_flip()
```




```
ggplot(not_mc) +
  geom_bar(mapping = aes(x=type, fill = type))
```


200
150
100
50
0
count
confirmed
death
recovered
type
type
confirmed
death
recovered