

Mission2

Ujjval Sharma

4/13/2021

R Markdown

This would tell the survival rate for different continents

```
library(readr)
library(tidyverse)

library(dplyr)
all_cases <- read_csv("/Users/ujjvalsharma/Documents/data-science/
project work/mission2/data-set/ddf--datapoints--cases--by--geo_id--
day.csv")

all_death <- read_csv("/Users/ujjvalsharma/Documents/data-science/
project work/mission2/data-set/ddf--datapoints--deaths--by--geo_id--
day.csv")

all_geo_names <- read_csv("/Users/ujjvalsharma/Documents/data-science/
project work/mission2/data-set/ddf--entities--geo_id.csv")

all_cases[, 3] =all_cases[, 3] + 1 #adding +1 for 0 cases
all_death[, 3] =all_death[, 3] + 1 #adding +1 for 0 death

# this code is used to get survival rate for each continent
all_cases_grp_geo<-all_cases %>%
  group_by(geo_id) %>%
  summarize(sum(cases, na.rm=TRUE))

all_death_grp_geo<-all_death %>%
  group_by(geo_id) %>%
  summarize(sum(deaths, na.rm=TRUE))

names(all_cases_grp_geo)[2] <- "cases"
names(all_death_grp_geo)[2] <- "deaths"

all_cases_grp_continent<-inner_join(all_cases_grp_geo, all_geo_names,
```

```

by=c("geo_id"="geo_id")) %>%
  group_by(continent_exp) %>%
  summarize(sum(cases, na.rm=TRUE))

all_death_grp_contient<-inner_join(all_death_grp_geo, all_geo_names,
by=c("geo_id"="geo_id")) %>%
  group_by(continent_exp) %>%
  summarize(sum(deaths, na.rm=TRUE))

names(all_cases_grp_contient)[2] <- "cases"
names(all_death_grp_contient)[2] <- "deaths"

cases_death_contient<- inner_join(all_cases_grp_contient,
all_death_grp_contient, by=c("continent_exp"="continent_exp"))

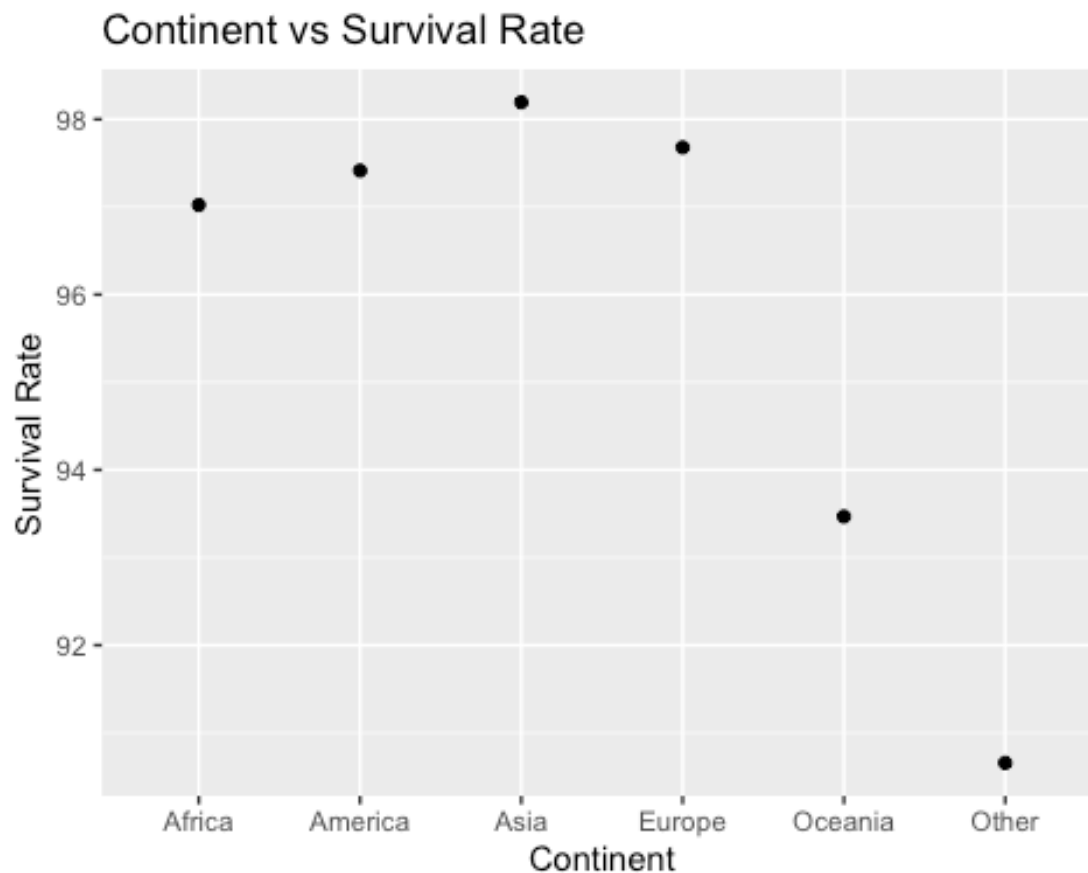
cases_death_contient <- transform(cases_death_contient,
survival_count=cases-deaths)

cases_death_contient<-cases_death_contient %>%
filter(survival_count>0)

cases_death_contient <- transform(cases_death_contient,
survival_rate=(survival_count/cases)*100)

ggplot(cases_death_contient, aes(x = continent_exp,y = survival_rate))
+
  geom_point()+
  labs(title="Continent vs Survival Rate",
       x ="Continent", y = "Survival Rate")

```



This would tell the time series for survival rate.

```
all_day_cases_grp_contient<-inner_join(all_cases, all_geo_names,  
by=c("geo_id"="geo_id")) %>%  
  group_by(continent_exp,day) %>%  
  summarize(sum(cases, na.rm=TRUE))
```

`summarise()` has grouped output by 'continent_exp'. You can override using the `.groups` argument.

```
all_day_death_grp_contient<-inner_join(all_death, all_geo_names,  
by=c("geo_id"="geo_id")) %>%  
  group_by(continent_exp,day) %>%  
  summarize(sum(deaths, na.rm=TRUE))
```

`summarise()` has grouped output by 'continent_exp'. You can override using the `.groups` argument.

```

names(all_day_cases_grp_contient)[3] <- "cases"
names(all_day_death_grp_contient)[3] <- "deaths"

all_cases_death_day<-inner_join(all_day_death_grp_contient,
all_day_cases_grp_contient,
by=c("continent_exp"="continent_exp", "day"="day"))

all_cases_death_day <- transform(all_cases_death_day,
survival_count=cases-deaths)

all_cases_death_day<-all_cases_death_day %>% filter(survival_count>0)

all_cases_death_day <- transform(all_cases_death_day, survival_rate=
ifelse(cases>0,(survival_count/cases)*100,100))

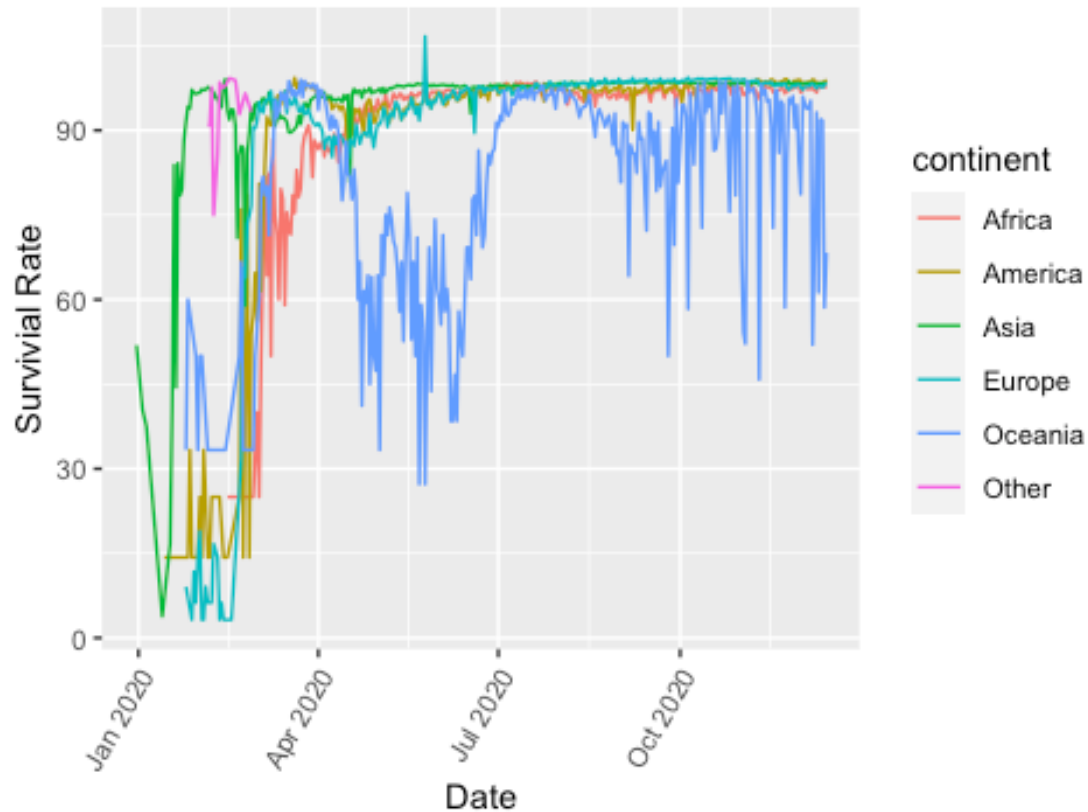
all_cases_death_day <- transform(all_cases_death_day, covid_date=
as.Date(paste(paste(substr(day, 1, 4),substr(day, 5, 6), sep="-"),
substr(day, 7, 8),sep="-")))

names(all_cases_death_day)[names(all_cases_death_day) ==
"continent_exp"] <- "continent"

ggplot(all_cases_death_day, aes(x=covid_date,
y=survival_rate,color=continent)) +
  geom_line() +
  theme(axis.text.x=element_text(angle=60, hjust=1))+
  labs(title="Time series for survival rate for each continent",
       x = "Date", y = "Survivial Rate")

```

Time series for survival rate for each continent



This would tell the survival rate for different continents for each day.

```
ggplot(all_cases_death_day, aes(x=covid_date,  
y=survival_rate,color=continent)) +  
  geom_point() +  
  theme(axis.text.x=element_text(angle=60, hjust=1))+  
  labs(title="Survival rate for each day of different continents",  
        x = "Date", y = "survival rate")
```

Survival rate for each day of different continents

