# Firstyearexam_jaquish

Jaquish (PID: A59010386)

7/13/2022

```
covid <- read.csv("covid19_variants.csv")
#View(covid)
```

```
library(ggplot2)
library(lubridate)
```

```
##
## Attaching package: 'lubridate'

## The following objects are masked from 'package:base':
##
##     date, intersect, setdiff, union
```

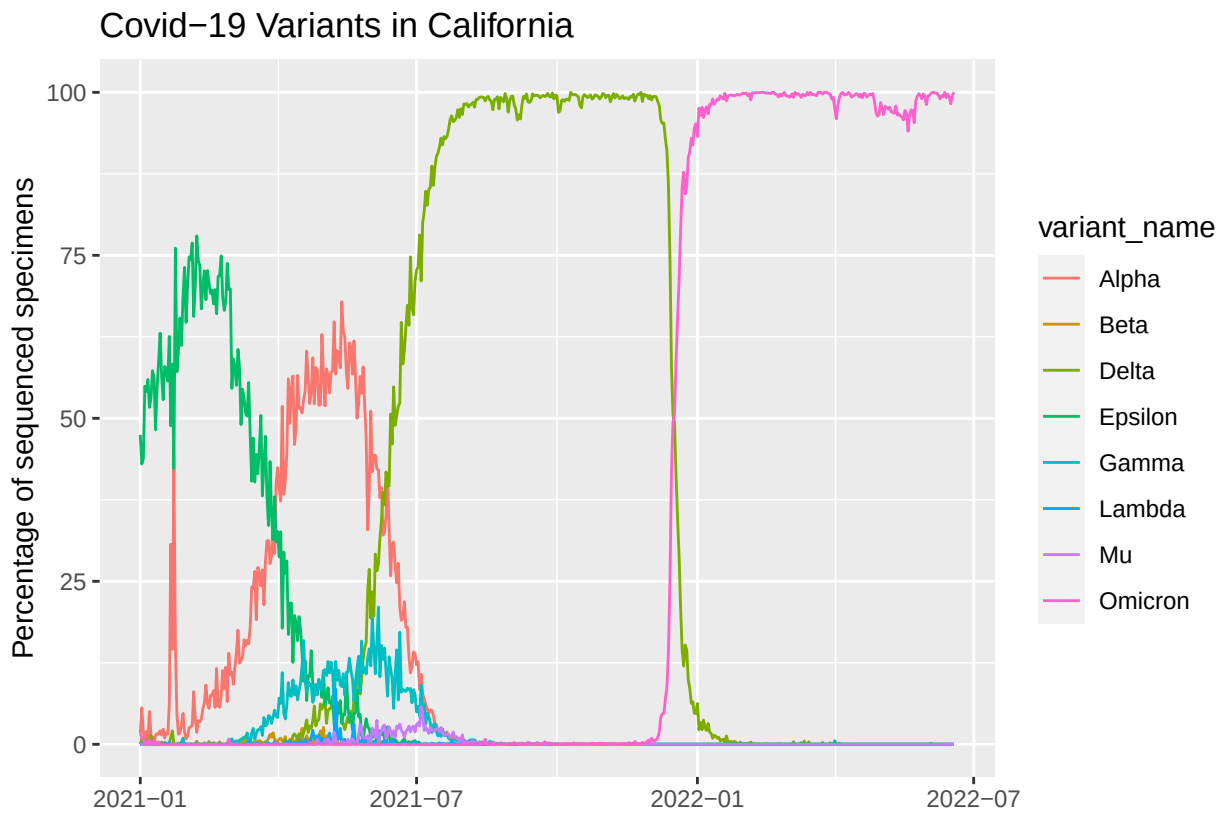
```
library(dplyr)
```

```
##
## 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
```

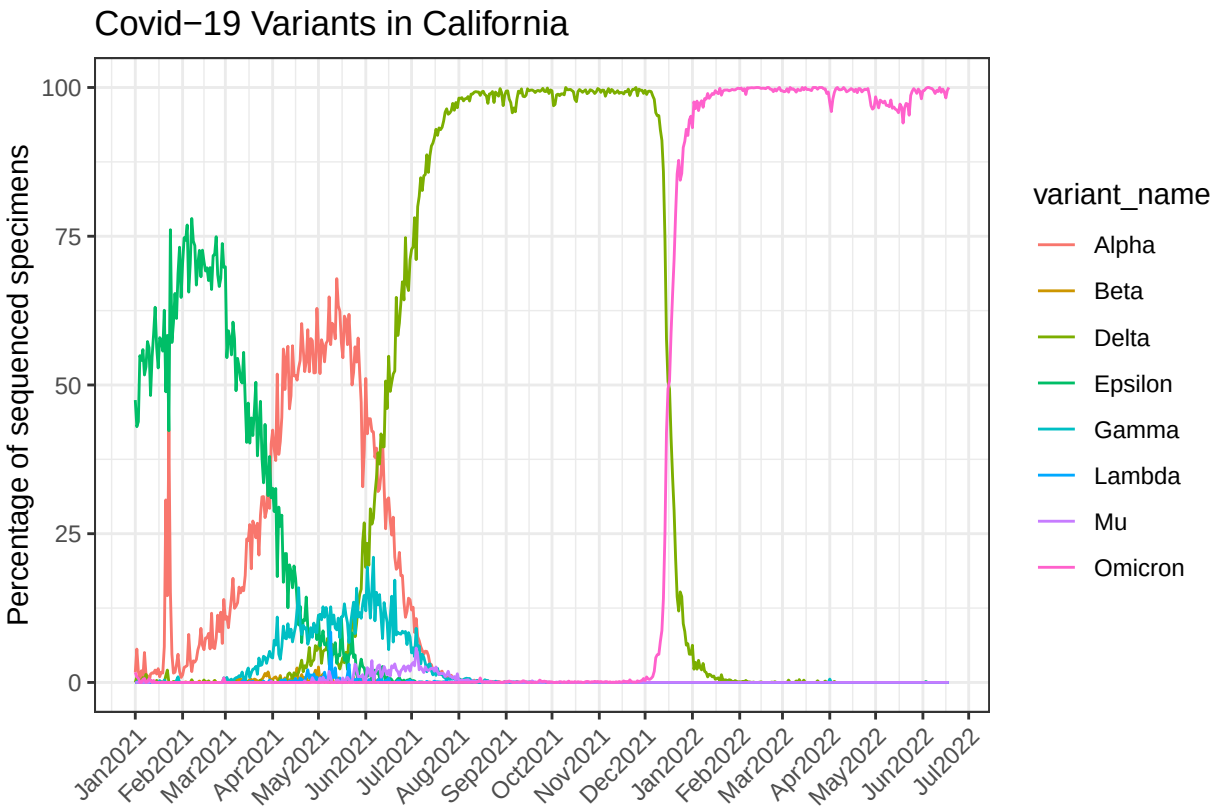
```
#First, I will use lubridate to change the dates, currently written in number,
#to be in a year month date word format.
covid$date <- ymd(covid$date)
```

```
#Second, I will need to remove "Total" and "other" row as it will not be calculated in our final graph.
#I can do this by using dplyr!
new.covid1 <- filter(covid, variant_name != "Total")
new.covid <- filter(new.covid1, variant_name != "Other")
#View(new.covid)
```

```
# Now I should be able to put it all together to form a graph!
ggplot(new.covid) + aes(x=date, y=percentage, color=variant_name) +
geom_line() +
labs(x="", y="Percentage of sequenced specimens", title="Covid-19 Variants in California")
```




```
# It looks like the dates are different, we somehow need to add more months in there...
#New attempt to change dates so they have word months and are spaced by 1 month.
#Can actually just do so by adding features to the axes in ggplot.
ggplot(new.covid) + aes(x=date, y=percentage, color=variant_name) +
geom_line() +
labs(x="", y="Percentage of sequenced specimens", title="Covid-19 Variants in California") +
scale_x_date(date_breaks = "1 month", date_labels = "%b%Y") +
theme_bw() +
theme(axis.text.x = element_text(angle=45, hjust=1))
```


Covid−19 Variants in California
Percentage of sequenced specimens
100
75
50
25
0
Jan2021
Feb2021
Mar2021
Apr2021
May2021
Jun2021
Jul2021
Aug2021
Sep2021
Oct2021
Nov2021
Dec2021
Jan2022
Feb2022
Mar2022
Apr2022
May2022
Jun2022
Jul2022
variant_name
Alpha
Beta
Delta
Epsilon
Gamma
Lambda
Mu
Omicron