Case Study 2

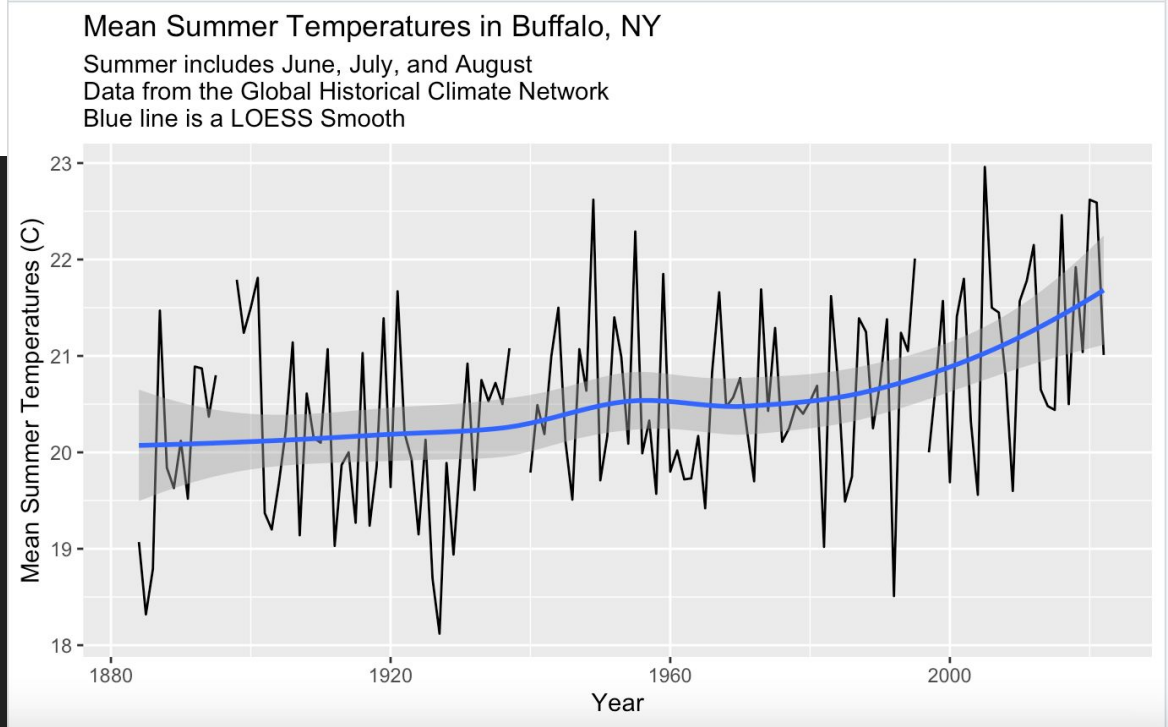
Team 6

Load Data

```
library(tidyverse)
dataurl="https://data.giss.nasa.gov/tmp/gistemp/STATIONS/tmp_USW00014733_14_0_1/station.txt"
httr::GET("https://data.giss.nasa.gov/cgi-bin/gistemp/stdata_show_v4.cgi?id=USW00014733&ds=14&dt=1")
read_table(dataurl)
temp=read_table(dataurl,
                skip=3, #skip the first line which has column names
                na="999.90", # tell R that 999.90 means missing in this dataset
                col_names = c("YEAR","JAN","FEB","MAR", # define column names
                              "APR","MAY","JUN","JUL",
                              "AUG","SEP","OCT","NOV",
                              "DEC","DJF","MAM","JJA",
                              "SON","metANN"))
```

Graph Mean

```
14 p1<-ggplot(temp,aes(YEAR,JJA))+geom_line()+geom_smooth()+ylab("Mean Summer Temperatures (C)")+xlab("Year")+ggtitle("Mean Summer Temperatures in Buffalo, NY",
15 subtitle="Summer includes June, July, and August
16 Data from the Global Historical Climate Network
17 Blue line is a LOESS Smooth")
18
19 png(file="Week 02 Case Study PNG", width=480, height=300)
20 p1
21 dev.off()
22
```



Comparing Mean Data

```
p1 <- ggplot(temp_Buffalo,aes(x = YEAR, y = JJA))+
  geom_line()+
  geom_smooth(color = "#ff0000")+
  ggtitle(label = "Mean Summer Temperature in Buffalo, NY",
          subtitle = "Summer includes June, July, and August
Data from Global Historical Climate Network
Red line is a LOESS smooth")+
  theme(plot.title = element_text(hjust = 0.5))+
  ylab("Mean Summer Temperatures (C)")

p2 <- ggplot(temp_NYC,aes(x = YEAR, y = JJA))+
  geom_line()+
  geom_smooth(color = "#ff0000")+
  ggtitle(label = "Mean Summer Temperature in New York City, NY",
          subtitle = "Summer includes June, July, and August
Data from Global Historical Climate Network
Red line is a LOESS smooth")+
  theme(plot.title = element_text(hjust = 0.5))+
  ylab("Mean Summer Temperatures (C)")
```