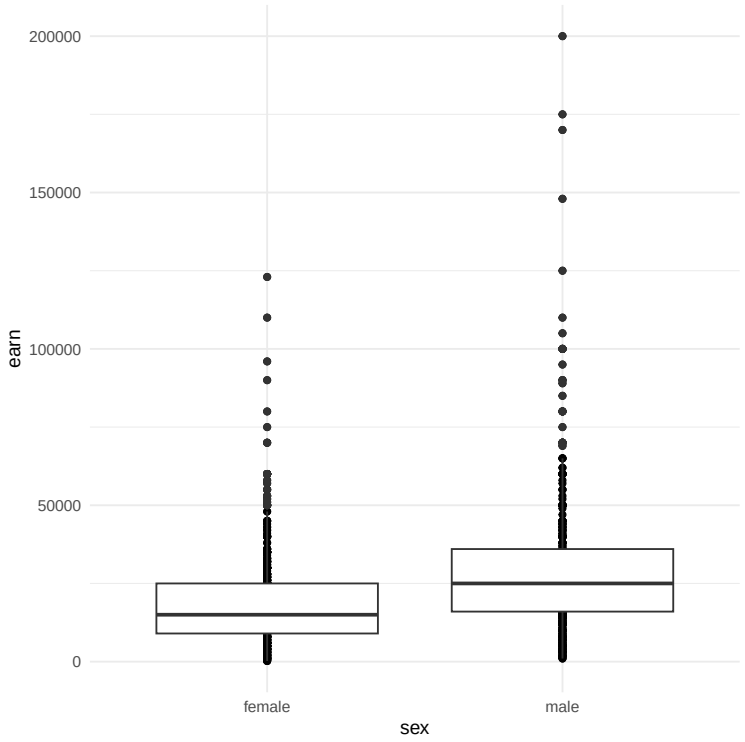
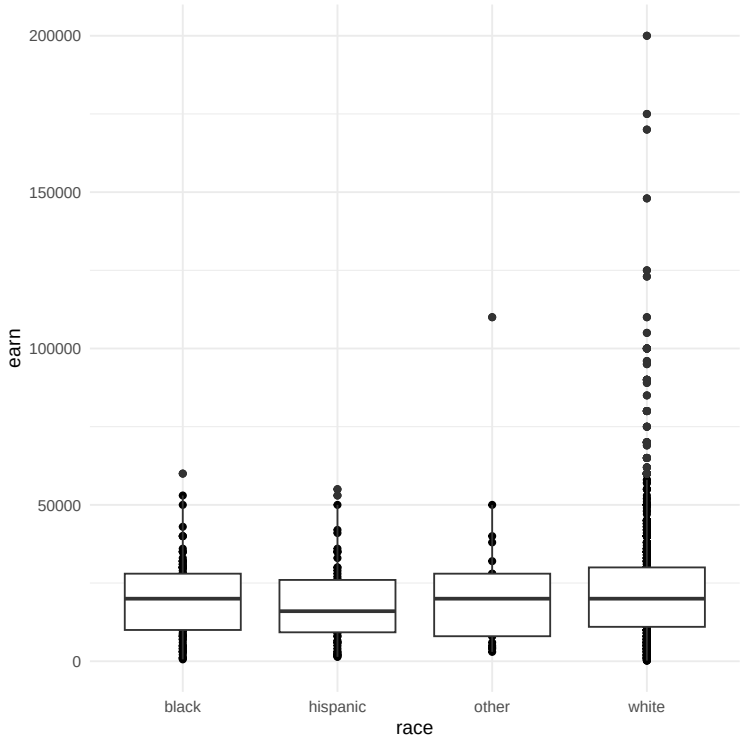
The results below are generated from an R script.

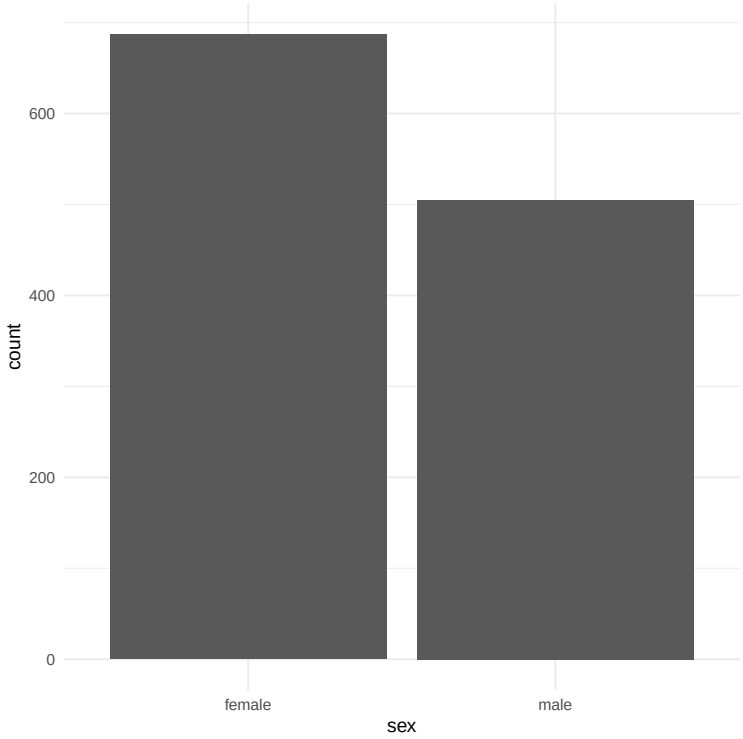
```
# Assignment: ASSIGNMENT 4
# Name: Quintero Vasquez, Johnatan
# Date: 2023-07-16

## Load the ggplot2 package
library(ggplot2)
theme_set(theme_minimal())

## Set the working directory to the root of your DSC 520 directory
setwd("C:/Users/21428899/OneDrive-Bellevue University/Documents/GitHub/dsc520")

## Load the `data/r4ds/heights.csv` to
heights_df <- read.csv("data/r4ds/heights.csv")

# https://ggplot2.tidyverse.org/reference/geom_boxplot.html
## Create boxplots of sex vs. earn and race vs. earn using `geom_point()` and `geom_boxplot()`
## sex vs. earn
ggplot(heights_df, aes(x = sex, y = earn)) + geom_point() + geom_boxplot()
```



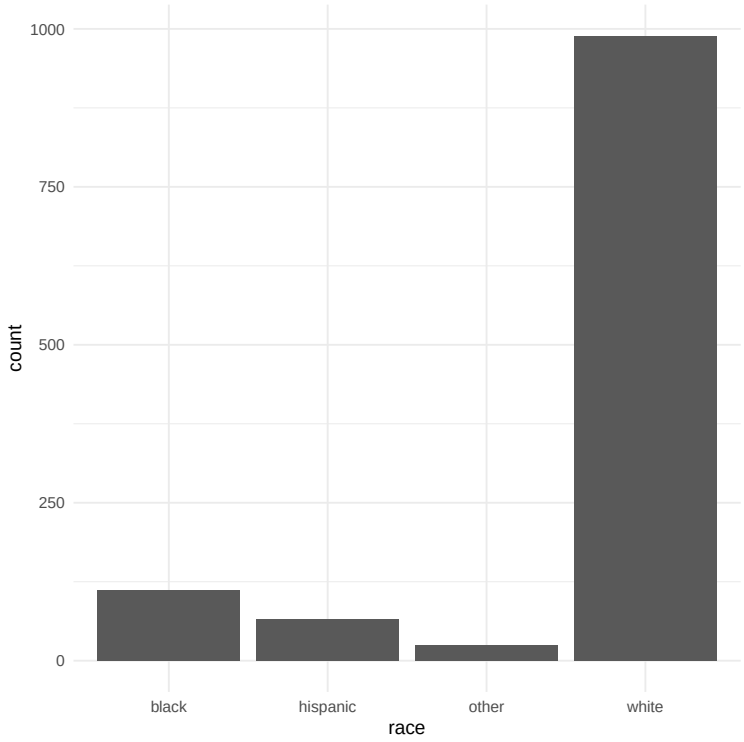

```
## race vs. earn
ggplot(heights_df, aes(x = race, y = earn)) + geom_point() + geom_boxplot()
```



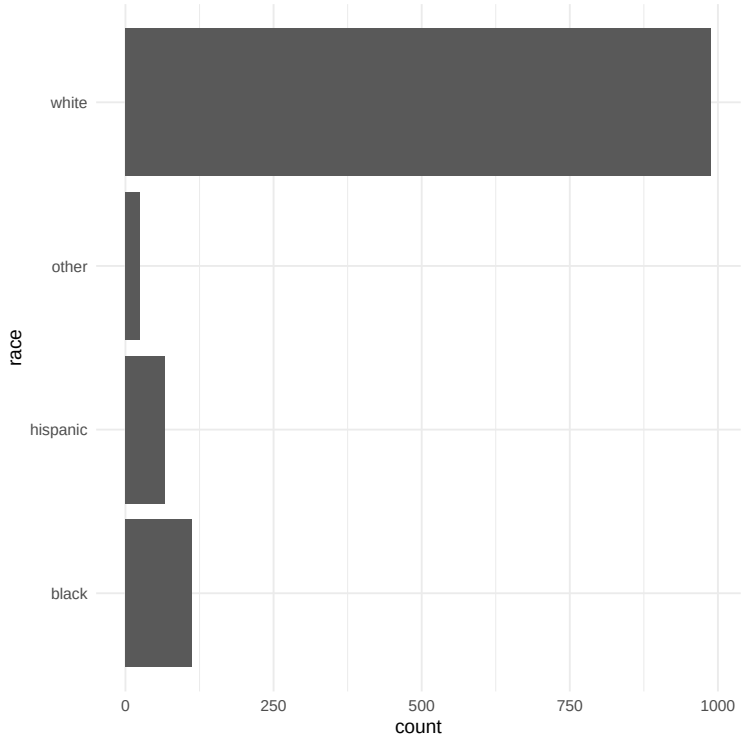

```
# https://ggplot2.tidyverse.org/reference/geom_bar.html
## Using `geom_bar()` plot a bar chart of the number of records for each `sex`
ggplot(heights_df, aes(x = sex)) + geom_bar()
```



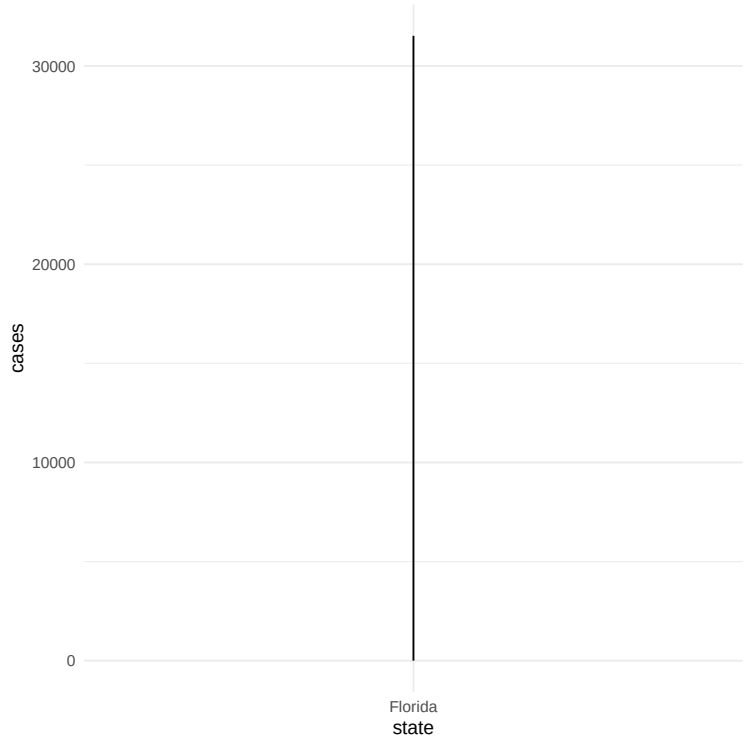
```
## Using `geom_bar()` plot a bar chart of the number of records for each race
ggplot(heights_df, aes(x = race)) + geom_bar()
```



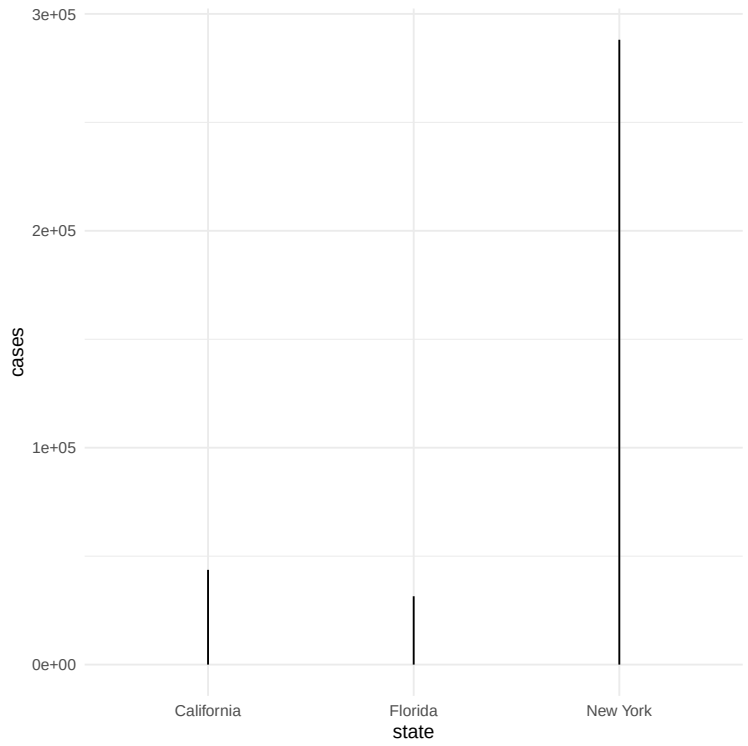

```
## Create a horizontal bar chart by adding `coord_flip()` to the previous plot
ggplot(heights_df, aes(x = race)) + geom_bar() + coord_flip()
```



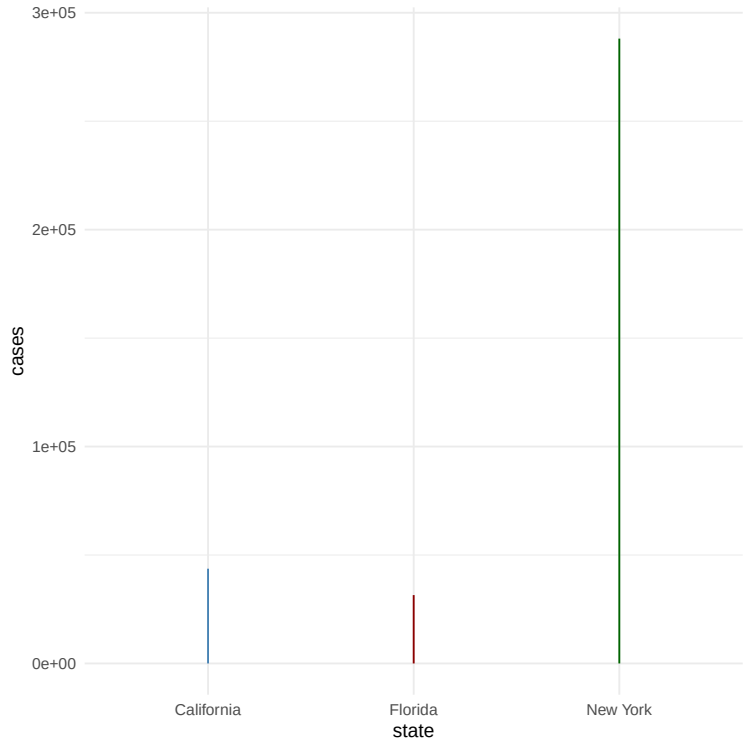
```r
# https://www.rdocumentation.org/packages/ggplot2/versions/3.3.0/topics/geom_path
## Load the file `"data/nytimes/covid-19-data/us-states.csv"` and
## assign it to the `covid_df` dataframe
covid_df <- read.csv("data/nytimes/covid-19-data/us-states.csv")

## Parse the date column using `as.Date()``
covid_df$date <- as.Date(x = covid_df$date)

## Create three dataframes named `california_df`, `ny_df`, and `florida_df`
## containing the data from California, New York, and Florida
california_df <- covid_df[ which( covid_df$state == "California"), ]
ny_df <- covid_df[ which( covid_df$state == "New York"), ]
florida_df <- covid_df[ which( covid_df$state == "Florida"), ]

## Plot the number of cases in Florida using `geom_line()`
ggplot(data=florida_df, aes(x=state, y=cases, group=1)) + geom_line()
```



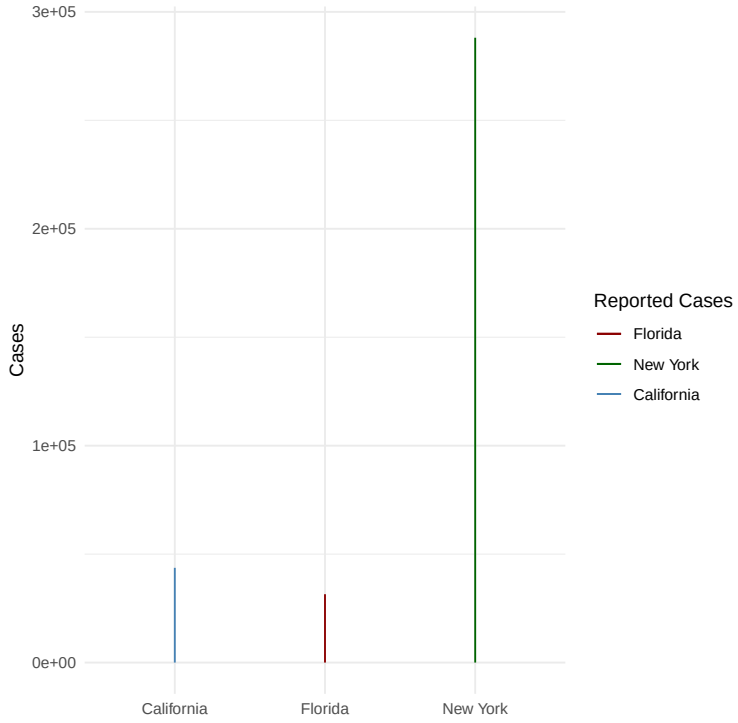

```r
## Add lines for New York and California to the plot
ggplot(data=florida_df, aes(x=state, group=1)) +
  geom_line(aes(y = cases)) +
  geom_line(data=ny_df, aes(y = cases)) +
  geom_line(data=california_df, aes(y = cases))
```



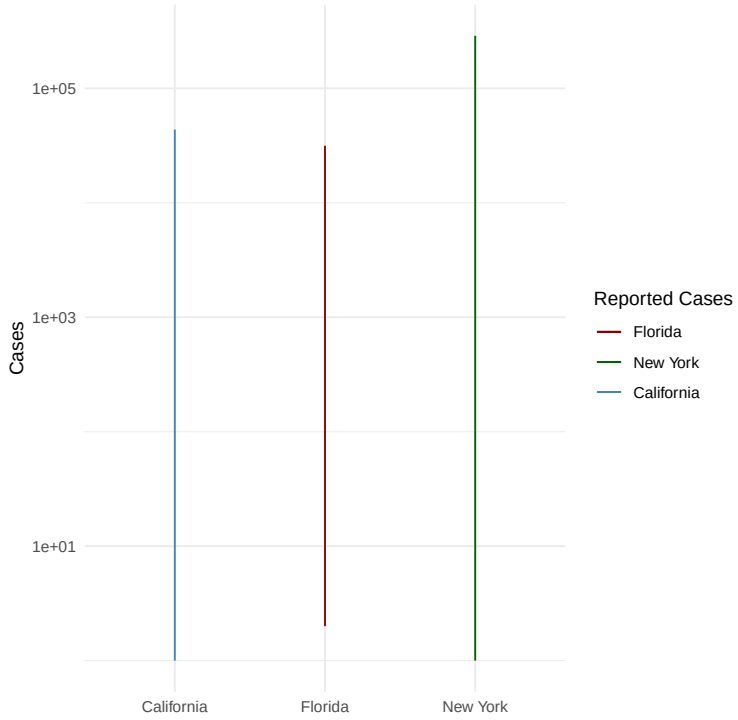

```
## Use the colors "darkred", "darkgreen", and "steelblue" for Florida, New York, and California
ggplot(data=florida_df, aes(x=state, group=1)) +
  geom_line(aes(y = cases), color = "darkred") +
  geom_line(data=ny_df, aes(y = cases), color = "darkgreen") +
  geom_line(data=california_df, aes(y = cases), color = "steelblue")
```



```r
## Add a legend to the plot using `scale_colour_manual`
## Add a blank (" ") label to the x-axis and the label "Cases" to the y axis
ggplot(data=florida_df, aes(x=state, group=1)) +
  geom_line(aes(y = cases, colour = "Florida")) +
  geom_line(data=ny_df, aes(y = cases, colour = "New York")) +
  geom_line(data=california_df, aes(y = cases, colour = "California")) +
  scale_colour_manual("Reported Cases",
                      breaks = c("Florida", "New York", "California"),
                      values = c("Florida" = "darkred", "New York" = "darkgreen", "California" = "steelb
    xlab(" ") + ylab("Cases")
```




```r
## Scale the y axis using `scale_y_log10()`
ggplot(data=florida_df, aes(x=state, group=1)) +
  geom_line(aes(y = cases, colour = "Florida")) +
  geom_line(data=ny_df, aes(y = cases, colour = "New York")) +
  geom_line(data=california_df, aes(y = cases, colour = "California")) +
  scale_colour_manual("Reported Cases",
                      breaks = c("Florida", "New York", "California"),
                      values = c("Florida" = "darkred", "New York" = "darkgreen", "California" = "steelb
  xlab(" ") + ylab("Cases") + scale_y_log10()
```




```
### knitr::stitch("C:\\Users\\21428899\\OneDrive-Bellevue University\\Documents\\GitHub\\dsc520\\assignm
```

The R session information (including the OS info, R version and all packages used):

```
sessionInfo()

## R version 4.3.0 (2023-04-21 ucrt)
## Platform: x86_64-w64-mingw32/x64 (64-bit)
## Running under: Windows 11 x64 (build 22621)
##
## Matrix products: default
##
##
## locale:
## [1] LC_COLLATE=English_United States.utf8  LC_CTYPE=English_United States.utf8
## [3] LC_MONETARY=English_United States.utf8 LC_NUMERIC=C
## [5] LC_TIME=English_United States.utf8
##
## time zone: America/New_York
## tzcode source: internal
##
## attached base packages:
## [1] stats     graphics  grDevices utils     datasets  methods   base
##
## other attached packages:
## [1] ggplot2_3.4.2
##
## loaded via a namespace (and not attached):
##  [1] vctrs_0.6.3      cli_3.6.1        knitr_1.43       rlang_1.1.1      xfun_0.39
##  [6] highr_0.10       generics_0.1.3   glue_1.6.2       labeling_0.4.2   colorspace_2.1-0
```

```
## [11] scales_1.2.1     fansi_1.0.4      grid_4.3.0       munsell_0.5.0    evaluate_0.21
## [16] tibble_3.2.1     lifecycle_1.0.3  compiler_4.3.0   dplyr_1.1.2      pkgconfig_2.0.3
## [21] farver_2.1.1     R6_2.5.1         tidyselect_1.2.0 utf8_1.2.3       pillar_1.9.0
## [26] magrittr_2.0.3   tools_4.3.0      withr_2.5.0      gtable_0.3.3

Sys.time()

## [1] "2023-07-17 04:13:05 EDT"
```