````
---
title: "ASSIGNMENT 4"
author: "Harlan Wittlieff"
date: '2021-10-10'
output:
  pdf_document: default
  html_document: default
  word_document: default
bibliography: bibliography.bib
---

# Markdown Basics

## Favorite Foods
1. Bruschetta
2. Pizza
2. Mac and Cheese

## Images
![All Cases (Log Plot)](completed/assignment04/plots/10-all-cases-log.png)

## Add a Quote
>Many of life's failures are people who did not realize how close they were to
success when they gave up.

## Add an Equation

$$a^{2} + b^{2} = c^{2}$$

## Add a Footnote

This is a footnote^[This is a footnote.].

## Add Citations

- R for Everyone [@lander2014r]
- Discovering Statistics Using R [@field2012discovering]

# Inline Code

```{r include=FALSE}
library(ggplot2)
heights_df <- read.csv(file='data/r4ds/heights.csv')
covid_df <- read.csv("data/nytimes/covid-19-data/us-states.csv")
covid_df$date <- as.Date(covid_df$date)
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'), ]
```


## NY Times COVID-19 Data
```{r echo=FALSE}
ggplot(data=florida_df, aes(x=date, 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("",
                      breaks = c('Florida', 'New York', 'California'),
                      values = c('darkred', 'darkgreen', 'steelblue')) +
  xlab(" ") + ylab("Cases") + scale_y_log10()

```


R4DS Height vs Earnings

```{r echo=FALSE}

ggplot(heights_df, aes(x=height, y=earn, col=sex)) + ggtitle("Height vs.
Earnings") +
    xlab("Height (Inches)") + ylab("Earnings (Dollars)") + geom_point()

```


Tables

```{r include=FALSE}
name <- c("Aragon", "Bilbo", "Frodo", "Galadriel", "Sam", "Gandalf",
"Legolas", "Sauron", "Gollum")
race <- c("Men", "Hobbit", "Hobbit", "Elf", "Hobbit", "Maia", "Elf", "Maia",
"Hobbit")
in_fellowship <- c(TRUE, FALSE, TRUE, FALSE, TRUE, TRUE, TRUE, FALSE, FALSE)
ring_bearer <- c(FALSE, TRUE, TRUE, FALSE, TRUE, TRUE, FALSE, TRUE, TRUE)
age <- c(88, 129, 51, 7000, 36, 2019, 2931, 7052, 589)
characters_df <- data.frame(name, race, in_fellowship, ring_bearer, age)
```


Knitr Table with Kable

```{r echo=FALSE}

knitr::kable(characters_df, caption="One Ring to Rule Them All")

```

Pandoc Table

```
+------+------+-------------+--------------+----+
|Name  |Race  |In Fellowship?|Is Ring Bearer?|Age |
+:====:+:====:+:============:+:============:+:==:+
|Aragon|Men   |Yes           |No            |88  |
+------+------+-------------+--------------+----+
|Bilbo |Hobbit|No            |Yes           |129 |
+------+------+-------------+--------------+----+
|Frodo |Hobbit|Yes           |Yes           |51  |
```

Sam	Hobbit	Yes	Yes	36
Sauron	Maia	No	Yes	7052

References