R Exercises Session 8

Michelle Dearolf

# Setup

First, clone the [Assignment8](https://github.com/CUNYSPHCode/Assignment8) repository to your own GitHub account by forking. Look for the forking button on the GitHub repository page.

You can then modify the repository (namely the R\_Exercises8.Rmd file) and complete the assignment by adding your answers in the appropriate place. Do **NOT** rename the file.

## Completing the assignment

Check your work by knitting the document.

1. Create a level 2 header below in Markdown with the name “Answer 1”.

## Answer 1

1. Add an unordered Markdown list of your favorite food dishes and add their ingredients as sub-items in the list. You should enter at least two dishes with two ingredients each.

* pizza
  + dough
  + cheese
  + sauce
* fruit salad
  + strawberry
  + blueberry
  + grapes

1. Insert an R code chunk below. Show the summary of the Orange dataset. Run a linear regression using the lm function to predict circumference from age and assign the result. Show the summary of the fit object that you assigned.

data("Orange")  
summary(Orange)

## Tree age circumference   
## 3:7 Min. : 118.0 Min. : 30.0   
## 1:7 1st Qu.: 484.0 1st Qu.: 65.5   
## 5:7 Median :1004.0 Median :115.0   
## 2:7 Mean : 922.1 Mean :115.9   
## 4:7 3rd Qu.:1372.0 3rd Qu.:161.5   
## Max. :1582.0 Max. :214.0

lm(circumference~age, data=Orange)

##   
## Call:  
## lm(formula = circumference ~ age, data = Orange)  
##   
## Coefficients:  
## (Intercept) age   
## 17.3997 0.1068

AgeByCircumference <- lm(circumference~age, data=Orange)  
summary(AgeByCircumference)

##   
## Call:  
## lm(formula = circumference ~ age, data = Orange)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -46.310 -14.946 -0.076 19.697 45.111   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 17.399650 8.622660 2.018 0.0518 .   
## age 0.106770 0.008277 12.900 1.93e-14 \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 23.74 on 33 degrees of freedom  
## Multiple R-squared: 0.8345, Adjusted R-squared: 0.8295   
## F-statistic: 166.4 on 1 and 33 DF, p-value: 1.931e-14

1. Add an RMarkdown weblink (in link format) below to your favorite R reference website.

[Useful R Reference Site](https://www.statology.org/r-guides/)

1. Replace the author field in the yaml header with your name and then successfully knit the RMarkdown document into a Word document.
2. Follow the [Pull Request instructions on GitHub](https://help.github.com/en/github/collaborating-with-issues-and-pull-requests/creating-a-pull-request-from-a-fork) to submit your assignment via GitHub as a Pull Request to the [Assignment8](https://github.com/CUNYSPHCode/Assignment8) repository.