Homework Assignment 1

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2/11/2020

Challenge 1

quote <- "There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; and that, whilst this planet has gone circling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being evolved."

quote_modified <- gsub("[[:punct:]]","", quote)

split_quote <- str_split(quote_modified, " ", n = Inf, simplify = FALSE)

split_quote_modified <- split_quote[[1]]

(every_fourth <- split_quote_modified[seq(from = 1, to = 60, by = 4)])

(sort(every_fourth, decreasing = TRUE))

Challenge 2

m1 <- matrix(data = seq(from = 1, to = 159, by = 2), nrow = 8, ncol = 10, byrow = FALSE)

(m1[5, 2])

(m1[5:7,])

m2 <- m1[3:6, 4:9]

class(m2) *The class of m2 is a matrix.*

mode(m2) *The mode of m2 is numeric.*

Challenge 3

a <- array(data = 400:1, dim = c(5, 5, 4, 4))

a[1, 1, 1, 2] *The output is 300.*

a[2, 3, 2,] *The output is 364, 264, 164, and 64.*

a[1:5, 1:5, 3, 3] *The output is a 5 x 5 matrix with values from 150 to 126 in descending order.*

Challenge 4

Primates <- list(Strepsirhini <- list(Lorisiformes <- list(Lorisoidea <- c("Lorisidae", "Galagidae")), Lemuriformes <- list(Lemuroidea <- c("Cheirogaleidae", "Lepilemuridae", "Indriidae", "Lemuridae", "Daubentoniidae"))), Haplorhini <- list(Tarsiiformes <- list(Tarsioidea <- "Tarsiidae"), Simiiformes <- list(Platyrrhini <-

list(Ceboidea <- c(“Cebidae”, “Atelidae”, “Pitheciidae”)), Catarrhini <- list(Hominoidea <- c(“Hylobatidae”, “Hominidae”), Cercopithecoidea <- “Cercopithecidae”))))

nwm <- Primates[[2]][[2]][[1]]

class(nwm) *The class of nwm is a list.*

mode(nwm) *The mode of nwm is also a list.*

names(Tarsiiformes) <- “Tarsioidea”

Tarsiiformes$Tarsioidea