

# DATA 697 - Week 3 assignment

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## Overview

Week 3 assignment will be working with various data sets to practice Data manipulation and processing

## Question 1

Using the 173 majors listed in [fivethirtyeight.com's College Majors dataset](https://fivethirtyeight.com/features/the-economic-guide-to-picking-a-college-major/) [https://fivethirtyeight.com/features/the-economic-guide-to-picking-a-college-major/], provide code that identifies the majors that contain either "DATA" or "STATISTICS"

```
library(readr)
library(RCurl)

x <- getURL("https://raw.githubusercontent.com/fivethirtyeight/data/master/college-majors/majors-list.csv")
majors <- read.csv(text=x)
#print(fightsongs)
#head(majors)

majorssdf <- data.frame(majors)
data_stats_majors <- subset(majorssdf, grepl("DATA", Major) | grepl("STATISTICS", Major))

data_stats_majors
```

```
##      FOD1P                                Major      Major_Category
## 44  6212 MANAGEMENT INFORMATION SYSTEMS AND STATISTICS      Business
## 52  2101      COMPUTER PROGRAMMING AND DATA PROCESSING Computers & Mathematics
## 59  3702      STATISTICS AND DECISION SCIENCE Computers & Mathematics
```

## Question 2

Write code that transforms the data below:

[1] "bell pepper" "bilberry" "blackberry" "blood orange"

[5] "blueberry" "cantaloupe" "chili pepper" "cloudberry"

[9] "elderberry" "lime" "lychee" "mulberry"

[13] "olive" "salal berry"

Into a format like this:

```
c("bell pepper", "bilberry", "blackberry", "blood orange", "blueberry", "cantaloupe", "chili pepper", "cloud-  
berry", "elderberry", "lime", "lychee", "mulberry", "olive", "salal berry")
```

```
list1 = c("bell pepper", "bilberry", "blackberry", "blood orange")  
list2 = c("blueberry", "cantaloupe", "chili pepper", "cloudberry")  
list3 = c("elderberry", "lime", "lychee", "mulberry")  
list4 = c("olive", "salal berry")
```

```
final<-c(list1,list2,list3,list4)  
final
```

```
## [1] "bell pepper" "bilberry" "blackberry" "blood orange" "blueberry"  
## [6] "cantaloupe" "chili pepper" "cloudberry" "elderberry" "lime"  
## [11] "lychee" "mulberry" "olive" "salal berry"
```

### Question 3

Describe, in words, what these expressions will match: `(.)\1\1`

```
#(.)\1\1  
#"(.)(.)\2\1"  
#(.)\1  
#"(.)\1.\1"  
#"(.)(.)\3\2\1"
```