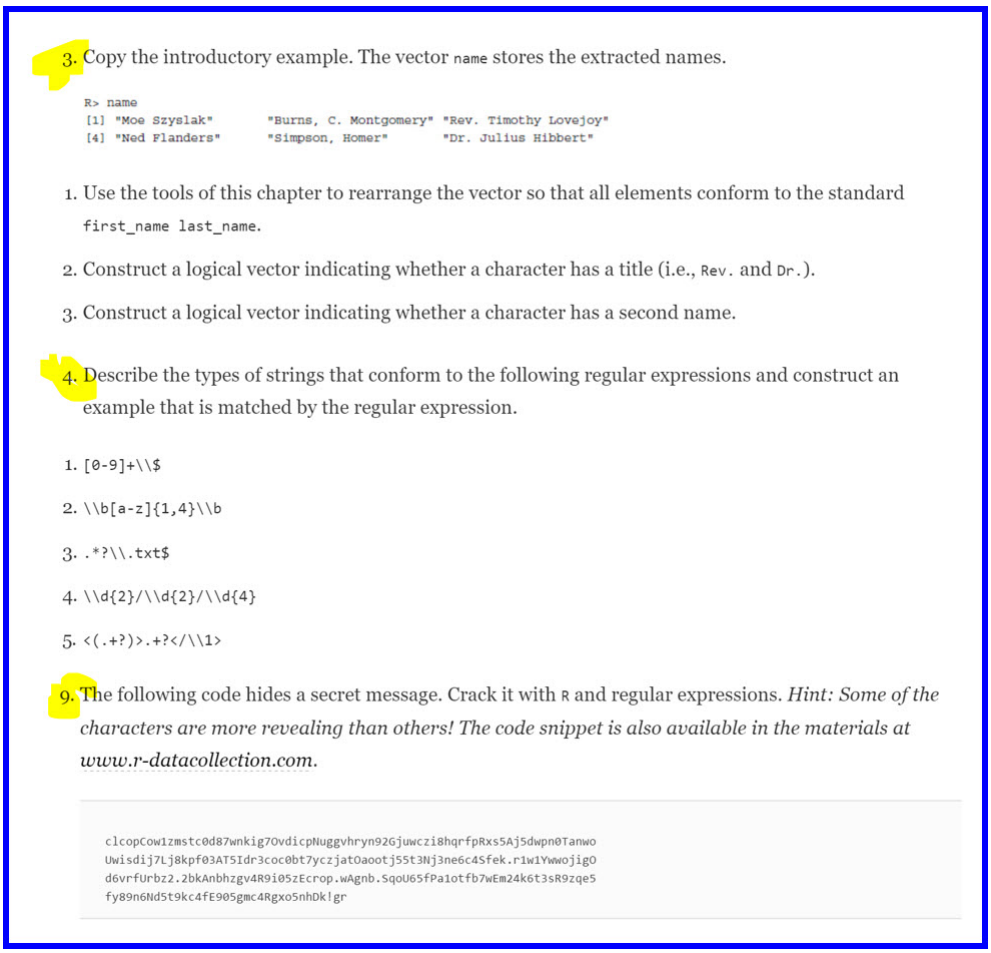
Week 3 Assignment

Please deliver links to an R Markdown file (inGitHub and rpubs.com) with solutions to problems 3 and 4 from chapter 8 of *Automated Data Collection in R*. Problem 9 is extra credit. You may work in a small group, but please submit separately with names of all group participants in your submission.

Here is the referenced code for the introductory example in #3:

```
 raw.data <-"555-1239Moe Szyslak(636) 555-0113Burns, C.
Montgomery555-6542Rev. Timothy Lovejoy555 8904Ned Flanders636-
555-3226Simpson, Homer5553642Dr. Julius Hibbert"
```

Due end of day Sunday February 18.



3. Copy the introductory example. The vector `name` stores the extracted names.

```
R> name
[1] "Moe Szyslak"       "Burns, C. Montgomery" "Rev. Timothy Lovejoy"
[4] "Ned Flanders"      "Simpson, Homer"       "Dr. Julius Hibbert"
```

1. Use the tools of this chapter to rearrange the vector so that all elements conform to the standard `first_name last_name`.
2. Construct a logical vector indicating whether a character has a title (i.e., `Rev.` and `Dr.`).
3. Construct a logical vector indicating whether a character has a second name.

4. Describe the types of strings that conform to the following regular expressions and construct an example that is matched by the regular expression.

1. `[0-9]+\\$`
2. `\\b[a-z]{1,4}\\b`
3. `.*?\\.txt$`
4. `\\d{2}/\\d{2}/\\d{4}`
5. `<(.+?)>.+?</\\1>`

9. The following code hides a secret message. Crack it with `R` and regular expressions. *Hint: Some of the characters are more revealing than others! The code snippet is also available in the materials at www.r-datacollection.com.*

```
clcopCow1zmstc0d87wnkig7OvdicpNuggvhryn92Gjuwczi8hqrfpRxs5Aj5dwpn0Tanwo
Uwisdij7Lj8kpf03AT5Idr3coc0bt7yczjatOaootj55t3Nj3ne6c4Sfek.r1w1YwwojigO
d6vrfUrbz2.2bkAnbhzgv4R9i05zEcrop.wAgnb.SqoU65fPa1otfb7wEm24k6t3sR9zqe5
fy89n6Nd5t9kc4fE905gmc4RgxoSnhDk!gr
```