String Manipulation in R: Fundamentals: **Takeaways**

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Syntax

str sub()

enables us to index strings:

```
words <- "Dataquest is awesome"
   > str_sub(words, 1, 9)
    [1] "Dataquest"
```

str to lower()

enables us to change all of the letters to lowercase in a given string: "" str to lower(colnames(recent grads))

- [1] "rank" "major_code" "major" "total" "men"
- [6] "women" "major_category" "sample_size" "employed" "full time"
- [11] "part_time" "full_time_year_round" "unemployed" "unemployment_rate" "median"
- [16] "college jobs" "non college jobs" "low wage jobs" ""

```
str to upper()
```

enables us to change all of the letters to uppercase in a given string: "exclamation <- "hello" str_to_upper(exclamation) [1] "HELLO" ```

str pad()

helps with padding strings, while

```
str_trim()
```

lets us trim whitespace or other designated characters from strings: ``` padded_string <- " Dataquest "str_trim(padded_string, side = "both") [1] "Dataquest" str_pad("Dataquest", width = 20, side = "both", pad = " ") [1] " Dataquest " ```

str split()

allows us to split a character vector into smaller substrings by splitting on a given character such as a single whitespace: "" sentence <- "The stringr library is essential to string manipulation." str_split(sentence, " ") [[1]] [1] "The" "stringr" "library" "is" "essential" "to" "string" [8] "manipulation." ```

str_c()

allows us to concatenate, or combine, strings together:

```
words <- c("String", "concatentation", "via", "function")</pre>
    str c(words, collapse = " ")
    [1] "String concatentation via function"
```

str_detect()

allows us to check if a particular substring is contained within a greater string: ``` review <- "I really enjoyed this product, and I thought it was great for the price." str_detect(review, "great") [1] TRUE ```

str replace()

lets us exchange the first instance of a given substring with another: ``` review2 <- "I really enjy codnig in R and wnt to lrn more."

str_replace(review2, pattern = "enjy", replacement = "enjoy") [1] "I really enjoy codnig in R and wnt to lrn more." ```

str_replace_all()

lets us exchange all instances of a substring with another: ``` review3 < - "I want to lrn R, and I definitely wnt to lrn more."

str_replace_all(review3, pattern = "lrn", replacement = "learn") [1] "I want to learn R, and I definitely wnt to learn more." ```

Concepts

- Character vectors are also indexed by number, but us must use the str_sub() function to index
 directly on the string. Trying to index the word using square brackets alone will return some
 unintended results.
- Using regular expression is the act of searching for a particular search pattern within a greater body of text. Regular expression has uses in finding words, string replacement and string removal.

Further Reading

- <u>stringr</u> <u>Documentation</u>
- **stringr** 's vignette on regular expression
- More Documentation on regular expression



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