

Assignment 9

Rachel Greenlee

10/19/2020

Purpose

For this assignment I'll be learning how to read data in from an API with the New York Times that requires a access key in order to look at data from their bestseller book lists the week of my birthday this past year.

Reading in the Data

First I'll need to install some packages to access, manipulate, and display the data

```
library(httr)
library(jsonlite)
library(dplyr)
library(stringr)
library(kableExtra)
```

Next I've put my API key for NYT in "nytkey" in a code chunk that is hidden, but I reference it below while using the GET function to access the API for NY Times Books.

```
#path provided by NY Times
path <- "https://api.nytimes.com/svc/books/v3/lists/overview.json"

#setting the date the bestseller list as my birthday, and a just-before the pandemic time
query <- "?published_date=2020-03-01"

#string it all together
url <- str_c(path, query, "&api-key=", nytkey, sep = "", collapse = NULL)

nyt_api <- GET(url, verbose())
```

View List Types

Transform what we pulled in to a dataframe where we can look at the lists available to us.

```
#grab the raw import of the API and set is text with proper encoding
bestseller_lists <- content(nyt_api, "text", encoding='UTF-8')

#convert from JSON
json_list <- fromJSON(bestseller_lists, flatten = TRUE)
```

```
#drill down to the lsits we want to see and display them
bestseller_lists <- json_list$results$list
kable(bestseller_lists$list_name, format = 'markdown')
```

x

Combined Print and E-Book Fiction
 Combined Print and E-Book Nonfiction
 Hardcover Fiction
 Hardcover Nonfiction
 Trade Fiction Paperback
 Paperback Nonfiction
 Advice How-To and Miscellaneous
 Childrens Middle Grade Hardcover
 Picture Books
 Series Books
 Young Adult Hardcover
 Audio Fiction
 Audio Nonfiction
 Business Books
 Mass Market Monthly
 Middle Grade Paperback Monthly
 Young Adult Paperback Monthly

Accessing the Book Lists

Finally, lets look at two bestseller lists from my birthday week this year. First, I'll pull paperback nonfiction books and a description.

```
#the 6 as it's the 6th list in the entry above
paperback_nf <- bestseller_lists[[6, "books"]]
paperback_nf <- subset(paperback_nf, select = c("title", "author",
                                                "description", "weeks_on_list"))
kable(paperback_nf, format = 'pipe')
```

| title | author | description | weeks_on_list |
|-----------|-----------|---|---------------|
| JUST | Bryan | A civil rights lawyer and MacArthur grant recipient's memoir of | 192 |
| MERCY | Stevenson | his decades of work to free innocent people condemned to death. | |
| ON | Timothy | Twenty lessons from the 20th century about the course of | 62 |
| TYRANNY | Snyder | tyranny. | |
| THE BODY | Bessel | How trauma affects the body and mind, and innovative | 69 |
| KEEPS | van der | treatments for recovery. | |
| THE | Kolk | | |
| SCORE | | | |
| SAPIENS | Yuval | How Homo sapiens became Earth's dominant species. | 92 |
| | Noah | | |
| | Harari | | |
| WHITE | Robin | Historical and cultural analyses on what causes defensive moves | 80 |
| FRAGILITY | DiAngelo | by white people and how this inhibits cross-racial dialogue. | |

Next, let's look at the hardcover fiction books from my birthday week and pull slightly different variables.

```
#the 1 as it's the 1st list in the entry above
hardcover_fic <- bestseller_lists[[1, "books"]]
hardcover_fic <- subset(hardcover_fic, select = c("title", "author",
                                                "publisher",
                                                "book_review_link"))

kable(hardcover_fic, format = 'pipe')
```

| title | author | publisher | book_review_link |
|-------------------------------|---------------------|------------------|---|
| AMERICAN DIRT | Jeanine Cummins | Flatiron | https://www.nytimes.com/2020/01/17/books/review-american-dirt-jeanine-cummins.html |
| WHERE THE CRAWDADS SING | Delia Owens | Putnam | |
| GOLDEN IN DEATH | JD Robb | St. Martin's | |
| LITTLE FIRES EVERYWHERE | Celeste Ng | Penguin Press | https://www.nytimes.com/2017/09/25/books/review/little-fires-everywhere-celeste-ng.html |
| THE SILENT PATIENT | Alex Michaelides | Celadon | |

Conclusion

While getting the URL correct to access the API took me some time, it was fairly intuitive to move through the file and pick out the best seller lists I wanted to see after that.

For this week's assignment I had a hard time accessing the NY Times Books API, and found this vignette helpful in getting it to work: <https://cran.r-project.org/web/packages/jsonlite/vignettes/json-apis.html>