# Assignment 6

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GitHub: https://github.com/seung-m1nsong/607 rpubs: https://rpubs.com/seungm1nsong/963987

### Assignment

The New York Times web site provides a rich set of APIs, as described here: https://developer.nytimes.com/apis

You'll need to start by signing up for an API key.

Your task is to choose one of the New York Times APIs, construct an interface in R to read in the JSON data, and transform it into an R DataFrame.

#### API

If the user does not have an account, they must first create an account at https://developer.nytimes.com/. After creating an account, you must apply for and receive an API key. I chose the US top story API for this assignment.

```
url <- "https://api.nytimes.com/svc/topstories/v2/us.json?api-key="
api_key <- "m5dpIvS3G7Y9JxotqgiQPJ0QAQlg07j8" #personal API Key
api_path <- paste(url,api_key, sep = "")</pre>
```

Read json data and insert it into R data frame. If you receive JSON-formatted data as HTTP Response, you can easily organize the desired data using the jsonlite package. You just need to convert the HTTP Response object to text and then extract the data in JSON format.

```
usTop <- as.data.frame(fromJSON(api_path))</pre>
```

Review the data frame.

#### head(usTop)

```
##
     status
                                                                       copyright
## 1
         OK Copyright (c) 2022 The New York Times Company. All Rights Reserved.
## 2
         OK Copyright (c) 2022 The New York Times Company. All Rights Reserved.
## 3
         OK Copyright (c) 2022 The New York Times Company. All Rights Reserved.
         OK Copyright (c) 2022 The New York Times Company. All Rights Reserved.
## 4
## 5
         OK Copyright (c) 2022 The New York Times Company. All Rights Reserved.
## 6
         OK Copyright (c) 2022 The New York Times Company. All Rights Reserved.
##
                            last_updated num_results results.section
       section
## 1 U.S. News 2022-09-12T14:39:39-04:00
                                                   25
## 2 U.S. News 2022-09-12T14:39:39-04:00
                                                   25
                                                               upshot
## 3 U.S. News 2022-09-12T14:39:39-04:00
                                                   25
                                                                   us
## 4 U.S. News 2022-09-12T14:39:39-04:00
                                                   25
## 5 U.S. News 2022-09-12T14:39:39-04:00
                                                   25
                                                                   us
## 6 U.S. News 2022-09-12T14:39:39-04:00
                                                   25
                                                             nyregion
     results.subsection
## 1
               politics
## 2
## 3
               politics
## 4
               politics
## 5
               politics
## 6
##
                                                                  results.title
## 1
         Pelosi, Vilified by Republicans for Years, Is a Top Target of Threats
          Legal Abortions Fell Around 6 Percent in Two Months After End of Roe
## 3 The Senator-Pastor From Georgia Mixes Politics and Preaching on the Trail
## 4
          The Battle for Blue-Collar White Voters Raging in Biden's Birthplace
## 5
            Roz Wyman, Who Helped Bring the Dodgers to Los Angeles, Dies at 92
## 6
             Four Dead, Including Three Children, in Bronx Fire, Officials Say
##
## 1 The attack on the husband of Speaker Nancy Pelosi, which appeared to target her, came after more to
## 2
## 3
```

```
## 4
                                                            Among white working-class voters in places 1
## 5
                                                      As a City Council member, she vowed to bring Major
## 6
                                                                                            Two other peo
##
                                                                                results.url
      https://www.nytimes.com/2022/10/30/us/politics/pelosi-attack-republican-threats.html
                   https://www.nytimes.com/2022/10/30/upshot/legal-abortions-fall-roe.html
## 2
## 3 https://www.nytimes.com/2022/10/30/us/politics/raphael-warnock-religion-campaign.html
       https://www.nytimes.com/2022/10/30/us/politics/blue-collar-voters-pennsylvania.html
## 4
                        https://www.nytimes.com/2022/10/30/us/politics/roz-wyman-dead.html
## 5
## 6
                        https://www.nytimes.com/2022/10/30/nyregion/bronx-fire-killed.html
##
                                            results.uri
## 1 nyt://article/365d6966-48aa-595c-8bd4-fa16e65646a7
## 2 nyt://article/8b7b7649-f0f8-5172-9343-c028c7bc8dce
## 3 nyt://article/931b5f9c-8c93-5d8f-910d-d07fb391f264
## 4 nyt://article/f724a5a0-3aad-591f-98b8-f79be2402abd
## 5 nyt://article/529dd9fc-d52c-5b9f-96a7-32fa8f7b4b9d
## 6 nyt://article/5b040592-f239-53b2-aa4e-e956be247792
##
                                     results.byline results.item_type
## 1 By Annie Karni, Catie Edmondson and Carl Hulse
                                                               Article
       By Margot Sanger-Katz and Claire Cain Miller
                                                               Article
## 3
                                       By Maya King
                                                               Article
## 4
                                By Shane Goldmacher
                                                               Article
## 5
                                By Richard Sandomir
                                                               Article
## 6
                    By April Rubin and Nancy Wartik
                                                               Article
##
          results.updated date
                                    results.created date
                                                             results.published_date
## 1 2022-10-30T20:05:58-04:00 2022-10-30T19:31:54-04:00 2022-10-30T19:31:54-04:00
## 2 2022-10-30T20:08:25-04:00 2022-10-30T18:53:57-04:00 2022-10-30T18:53:57-04:00
## 3 2022-10-30T17:25:10-04:00 2022-10-30T17:25:10-04:00 2022-10-30T17:25:10-04:00
## 4 2022-10-30T18:42:22-04:00 2022-10-30T16:47:39-04:00 2022-10-30T16:47:39-04:00
## 5 2022-10-30T15:04:00-04:00 2022-10-30T13:39:58-04:00 2022-10-30T13:39:58-04:00
## 6 2022-10-30T17:46:56-04:00 2022-10-30T12:30:26-04:00 2022-10-30T12:30:26-04:00
     results.material_type_facet results.kicker
##
## 1
## 2
## 3
## 4
```

```
## 5
## 6
##
## 1 United States Politics and Government, Midterm Elections (2022), Conspiracy Theories, Assassination
## 2
                                                                                      Abortion, States (U
## 3
## 4
## 5
## 6
##
                                                                   results.org_facet
## 1
                                                                     Republican Party
## 2
## 3
                            Ebenezer Baptist Church (Atlanta, Ga), Democratic Party
## 4
                                                  Democratic Party, Republican Party
## 5 Los Angeles Dodgers, Brooklyn Dodgers, Major League Baseball, Democratic Party
## 6
                                                               Fire Department (NYC)
##
                                                                                                 results.
## 1
                                                                       Pelosi, Nancy, Pelosi, Paul, Depa
## 2
## 3
                                                                                                Warnock,
## 4 Biden, Joseph R Jr, Trump, Donald J, Cartwright, Matthew A (1961-), Fetterman, John (1969-), Oz,
## 5
                                                                          Wyman, Roz (1930-2022), O'Malle
## 6
##
       results.geo_facet
## 1
## 2
## 3
                 Georgia
## 4
            Pennsylvania
## 5 Los Angeles (Calif)
## 6
             Bronx (NYC)
##
## 1
## 2 https://static01.nyt.com/images/2022/10/31/multimedia/31-UP-ILLINOIS-01-PRINT/30up-illinois1-1-072
## 3
## 4
## 5
```

```
## 6
## results.short_url
## 1 https://nyti.ms/3fiwAOp
## 2 https://nyti.ms/3U7T839
## 3 https://nyti.ms/3gWXKuH
## 4 https://nyti.ms/3sK1rX6
## 5 https://nyti.ms/3DLPPta
## 6 https://nyti.ms/3sKCivC
```

## colnames(usTop)

##	[1]	"status"	"copyright"
##	[3]	"section"	"last_updated"
##	[5]	"num_results"	"results.section"
##	[7]	"results.subsection"	"results.title"
##	[9]	"results.abstract"	"results.url"
##	[11]	"results.uri"	"results.byline"
##	[13]	"results.item_type"	"results.updated_date"
##	[15]	"results.created_date"	"results.published_date"
##	[17]	"results.material_type_facet"	"results.kicker"
##	[19]	"results.des_facet"	"results.org_facet"
##	[21]	"results.per_facet"	"results.geo_facet"
##	[23]	"results.multimedia"	"results.short_url"