DA607 Week 10 Assignment

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Assignment - Web APIs

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

You'll need to start by signing up for an API key. (df956f71033315e19a189086a92e03b6%3A1%3A59370888)

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 to an R dataframe.

```r
library(jsonlite)
library(knitr)

# NY Times Congress API Key: df956f71033315e19a189086a92e03b6:1:59370888

NY_TIMES_CONGRESS_HOUSE_MEMBERS_JSON_URL = 'http://api.nytimes.com/svc/politics/v3/us/legislative/congr

json_file <- fromJSON(NY_TIMES_CONGRESS_HOUSE_MEMBERS_JSON_URL)
df <- as.data.frame(json_file$results$members)
```

The Following are a list of (the top 20) Members of Congress:

Subset with good UI:

```r
kable(head(df[ , (names(df) %in% c('id','first_name','last_name','state','party','seniority','missed_vo
```

id	first_name	last_name	party	seniority	missed_votes	state
A000014	Neil	Abercrombie	D	4	30	HI
A000022	Gary	Ackerman	D	10	173	NY
A000103	William	Alexander	D	24	188	AR
A000109	Wayne	Allard	R	2	16	CO
A000121	George	Allen	R	2	4	VA
A000189	Glenn	Anderson	D	24	30	CA
A000209	Michael	Andrews	D	10	18	TX
A000210	Robert	Andrews	D	2	26	NJ
A000211	Thomas	Andrews	D	2	14	ME
A000212	Frank	Annunzio	D	28	48	IL
A000213	Beryl	Anthony	D	14	184	AR
A000214	Douglas	Applegate	D	16	21	OH
A000215	Bill	Archer	R	22	49	TX
A000217	Richard	Armey	R	2	26	TX
A000224	Leslie	Aspin	D	22	64	WI
A000226	Chester	Atkins	D	8	60	MA
A000337	Les	AuCoin	D	18	149	OR
B000008	Jim	Bacchus	D	2	33	FL

id	first_name	last_name	party	seniority	missed_votes	state
B000072	Richard	Baker	R	6	61	LA
B000104	Cass	Ballenger	R	6	38	NC

All columns with core UI:

```
head(df, n = 20)
```

```
##          id thomas_id
## 1  A000014         2
## 2  A000022         4
## 3  A000103        10
## 4  A000109        11
## 5  A000121        13
## 6  A000189        16
## 7  A000209        20
## 8  A000210        21
## 9  A000211        22
## 10 A000212        23
## 11 A000213        24
## 12 A000214        25
## 13 A000215        26
## 14 A000217        28
## 15 A000224        33
## 16 A000226        34
## 17 A000337        36
## 18 B000008        37
## 19 B000072        47
## 20 B000104        50
##                                                                          api_uri
## 1  http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000014.json
## 2  http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000022.json
## 3  http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000103.json
## 4  http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000109.json
## 5  http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000121.json
## 6  http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000189.json
## 7  http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000209.json
## 8  http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000210.json
## 9  http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000211.json
## 10 http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000212.json
## 11 http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000213.json
## 12 http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000214.json
## 13 http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000215.json
## 14 http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000217.json
## 15 http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000224.json
## 16 http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000226.json
## 17 http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/A000337.json
## 18 http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/B000008.json
## 19 http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/B000072.json
## 20 http://api.nytimes.com/svc/politics/v3/us/legislative/congress/members/B000104.json
##    first_name middle_name  last_name party twitter_account
## 1        Neil        <NA> Abercrombie     D  neilabercrombie
```

```
## 2        Gary         L.   Ackerman    D repgaryackerman
## 3     William     Vollie   Alexander    D
## 4       Wayne         A.      Allard    R
## 5      George      Felix       Allen    R
## 6       Glenn    Malcolm    Anderson    D
## 7     Michael       <NA>     Andrews    D
## 8      Robert         E.     Andrews    D         RepAndrews
## 9      Thomas         H.     Andrews    D
## 10      Frank       <NA>    Annunzio    D
## 11      Beryl   Franklin     Anthony    D
## 12    Douglas       <NA>   Applegate    D
## 13       Bill       <NA>      Archer    R
## 14    Richard         K.       Armey    R
## 15     Leslie       <NA>       Aspin    D
## 16    Chester  Greenough      Atkins    D
## 17        Les       <NA>      AuCoin    D
## 18        Jim       <NA>     Bacchus    D
## 19    Richard       Hugh       Baker    R
## 20       Cass       <NA>   Ballenger    R
##    facebook_account facebook_id                           url
## 1
## 2
## 3
## 4
## 5
## 6
## 7
## 8                                http://andrews.house.gov/
## 9
## 10
## 11
## 12
## 13
## 14
## 15
## 16
## 17
## 18
## 19
## 20
##                            rss_url           domain dw_nominate
## 1
## 2
## 3
## 4
## 5
## 6
## 7
## 8  http://andrews.house.gov/rss.xml andrews.house.gov
## 9
## 10
## 11
## 12
## 13
```

```
## 14
## 15
## 16
## 17
## 18
## 19
## 20
##    ideal_point seniority total_votes missed_votes total_present state
## 1                      4         932           30             0    HI
## 2                     10         932          173             0    NY
## 3                     24         932          188             0    AR
## 4                      2         932           16             0    CO
## 5                      2         545            4             1    VA
## 6                     24         932           30             0    CA
## 7                     10         932           18             0    TX
## 8                      2         932           26             0    NJ
## 9                      2         932           14             0    ME
## 10                    28         932           48             0    IL
## 11                    14         932          184             0    AR
## 12                    16         932           21             0    OH
## 13                    22         932           49             0    TX
## 14                     2         932           26             0    TX
## 15                    22         932           64             0    WI
## 16                     8         932           60             0    MA
## 17                    18         932          149             0    OR
## 18                     2         932           33             0    FL
## 19                     6         932           61             0    LA
## 20                     6         932           38             1    NC
##    district missed_votes_pct votes_with_party_pct
## 1         1             3.22                87.03
## 2         7            18.56                89.86
## 3         1            20.17                86.29
## 4         4             1.72                82.21
## 5         7             0.73                83.55
## 6        32             3.22                85.14
## 7        25             1.93                78.88
## 8         1             2.79                79.03
## 9         1             1.50                85.40
## 10       11             5.15                86.99
## 11        4            19.74                85.03
## 12       18             2.25                76.40
## 13        7             5.26                78.82
## 14       26             2.79                79.80
## 15        1             6.87                84.79
## 16        5             6.44                86.12
## 17        1            15.99                86.59
## 18       11             3.54                82.76
## 19        6             6.55                85.53
## 20       10             4.08                83.89
```