

# Data-607 Week-9 Assignment

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## 1] Library Initialization

```
library(jsonlite)
library(tidyr)
library(dplyr)

##
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':
##
##   filter, lag

## The following objects are masked from 'package:base':
##
##   intersect, setdiff, setequal, union

library(ggplot2)
```

## 2] Read movie critics info

```
API.URL = "http://api.nytimes.com/svc/movies/v2/reviews/search.json?api-key=ac5b7916e92c4b21926210fbe19"
Movie.Critics <- fromJSON(API.URL)$results
```

## 3] Preview resulting data frame and column types

```
head(Movie.Critics)

##           display_title mpaa_rating critics_pick      byline
## 1           Burning    Not Rated           1    MANOHLA DARGIS
## 2 A Bread Factory, Part One           1      BILGE EBIRI
## 3 A Bread Factory, Part Two           1      BILGE EBIRI
## 4      Monrovia, Indiana           1      A.O. SCOTT
## 5           Border              R           1    GLENN KENNY
## 6           Shirkers           1 JEANNETTE CATSOULIS
```

```

##                                     headline
## 1                                Review: In <U+0091>Burning,<U+0092> Love Ignites a Divided World
## 2      Review: In <U+0091>A Bread Factory,<U+0092> Local Artists Face Off Against the World
## 3      Review: In <U+0091>A Bread Factory,<U+0092> Local Artists Face Off Against the World
## 4 Review: <U+0091>Monrovia, Indiana<U+0092> Is a Sharp, Lyrical Look at Small-Town America
## 5      Review: Sniffing Out Guilt in a Strangely Engaging <U+0091>Border<U+0092>
## 6      Review: In <U+0091>Shirkers,<U+0092> Stolen Footage and Dashed Dreams
##
## 1                                The great South Korean director Lee Chang-dong<U+0092>
## 2 An ambitious, sprawling film about the efforts of a community arts center to survive, <U+0093>A Br
## 3 An ambitious, sprawling film about the efforts of a community arts center to survive, <U+0093>A Br
## 4                                Frederick Wiseman<U+0092>s visit to Trump country finds that there is m
## 5                                The film, adapted from a short story by the writer of <U+0093>Let th
## 6                                Sandi Tan<U+0092>s captivating documentary about the theft of her fi
##  publication_date opening_date      date_updated link.type
## 1      2018-10-25   2018-11-09 2018-10-26 16:44:28  article
## 2      2018-10-25   2018-10-26 2018-10-26 16:44:27  article
## 3      2018-10-25   2018-10-26 2018-10-26 16:44:27  article
## 4      2018-10-25   2018-10-26 2018-10-25 14:32:03  article
## 5      2018-10-25   2018-10-26 2018-10-26 16:44:26  article
## 6      2018-10-25   2018-10-26 2018-10-26 16:44:24  article
##                                     link.url
## 1                                http://www.nytimes.com/2018/10/25/movies/burning-review.html
## 2                                http://www.nytimes.com/2018/10/25/movies/a-bread-factory-review.html
## 3                                http://www.nytimes.com/2018/10/25/movies/a-bread-factory-review.html
## 4 http://www.nytimes.com/2018/10/25/movies/monrovia-indiana-review-documentary.html
## 5                                http://www.nytimes.com/2018/10/25/movies/border-review.html
## 6                                http://www.nytimes.com/2018/10/25/movies/shirkers-review.html
##                                link.suggested_link_text
## 1                                Read the New York Times Review of Burning
## 2 Read the New York Times Review of A Bread Factory, Part One
## 3 Read the New York Times Review of A Bread Factory, Part Two
## 4      Read the New York Times Review of Monrovia, Indiana
## 5      Read the New York Times Review of Border
## 6      Read the New York Times Review of Shirkers
##      multimedia.type
## 1 mediumThreeByTwo210
## 2 mediumThreeByTwo210
## 3 mediumThreeByTwo210
## 4 mediumThreeByTwo210
## 5 mediumThreeByTwo210
## 6 mediumThreeByTwo210
##                                     multimedia
## 1 https://static01.nyt.com/images/2018/10/26/arts/26burning-top/26burning-top-mediumThreeByTwo210-v3
## 2      https://static01.nyt.com/images/2018/10/26/arts/26bread2/26bread2-mediumThreeByTwo210-v2
## 3      https://static01.nyt.com/images/2018/10/26/arts/26bread2/26bread2-mediumThreeByTwo210-v2
## 4      https://static01.nyt.com/images/2018/10/26/arts/26monrovia1/26monrovia1-mediumThreeByTwo210-v3
## 5      https://static01.nyt.com/images/2018/10/26/arts/26border/26border-mediumThreeByTwo210-v3
## 6      https://static01.nyt.com/images/2018/10/24/arts/shirkers1/shirkers1-mediumThreeByTwo210
##  multimedia.width multimedia.height
## 1      210      140
## 2      210      140
## 3      210      140
## 4      210      140

```

```
## 5          210          140
## 6          210          140
```

```
str(Movie.Critics)
```

```
## 'data.frame':   20 obs. of  11 variables:
## $ display_title   : chr  "Burning" "A Bread Factory, Part One" "A Bread Factory, Part Two" "Monrovi
## $ mpaa_rating     : chr  "Not Rated" "" "" "" ...
## $ critics_pick    : int   1 1 1 1 1 1 1 1 1 1 ...
## $ byline          : chr  "MANOHLA DARGIS" "BILGE EBIRI" "BILGE EBIRI" "A.O. SCOTT" ...
## $ headline        : chr  "Review: In <U+0091>Burning,<U+0092> Love Ignites a Divided World""| __tru
## $ summary_short   : chr  "The great South Korean director Lee Chang-dong<U+0092>s latest involves t
## $ publication_date: chr  "2018-10-25" "2018-10-25" "2018-10-25" "2018-10-25" ...
## $ opening_date    : chr  "2018-11-09" "2018-10-26" "2018-10-26" "2018-10-26" ...
## $ date_updated    : chr  "2018-10-26 16:44:28" "2018-10-26 16:44:27" "2018-10-26 16:44:27" "2018-10
## $ link            : 'data.frame':   20 obs. of  3 variables:
## ..$ type          : chr  "article" "article" "article" "article" ...
## ..$ url           : chr  "http://www.nytimes.com/2018/10/25/movies/burning-review.html" "http
## ..$ suggested_link_text: chr  "Read the New York Times Review of Burning" "Read the New York Times
## $ multimedia      : 'data.frame':   20 obs. of  4 variables:
## ..$ type : chr  "mediumThreeByTwo210" "mediumThreeByTwo210" "mediumThreeByTwo210" "mediumThreeByT
## ..$ src  : chr  "https://static01.nyt.com/images/2018/10/26/arts/26burning-top/26burning-top-medi
## ..$ width: int   210 210 210 210 210 210 210 210 210 210 ...
## ..$ height: int   140 140 140 140 140 140 140 140 140 140 ...
```

Resulting DF have 20 rows and 16 columns. Following is the more information on data frame columns

```
> display_title : Movie Name > mpaa_rating : Movie Rating > critics_pick : Whether critics pick or
not > byline : Name of the critics > headline : Headline Info > summary_short : Short summary >
publication_date : Date of publication > opening_date : Date of movie opening > date_updated : Updated
Date > link.type : Link Type > link.url : Link URL > link.suggested_link_text : Suggested link url >
multimedia.type : Type of multimedia > multimedia.src : Source of multimedia > multimedia.width : Width
of multimedia > multimedia.height : Height of multimedia
```

#### 4] Fill null values in rating column

```
Movie.Critics$mpaa_rating[Movie.Critics$mpaa_rating == ''] <- 'Not Rated'
```

#### 5] Show bar chart of rating type

```
Movie.Critics %>%
```

```
ggplot(aes(x=mpaa_rating, fill=mpaa_rating)) + geom_bar(position = "dodge") + # plot
ggtitle("Movie Rating bar plot")
```

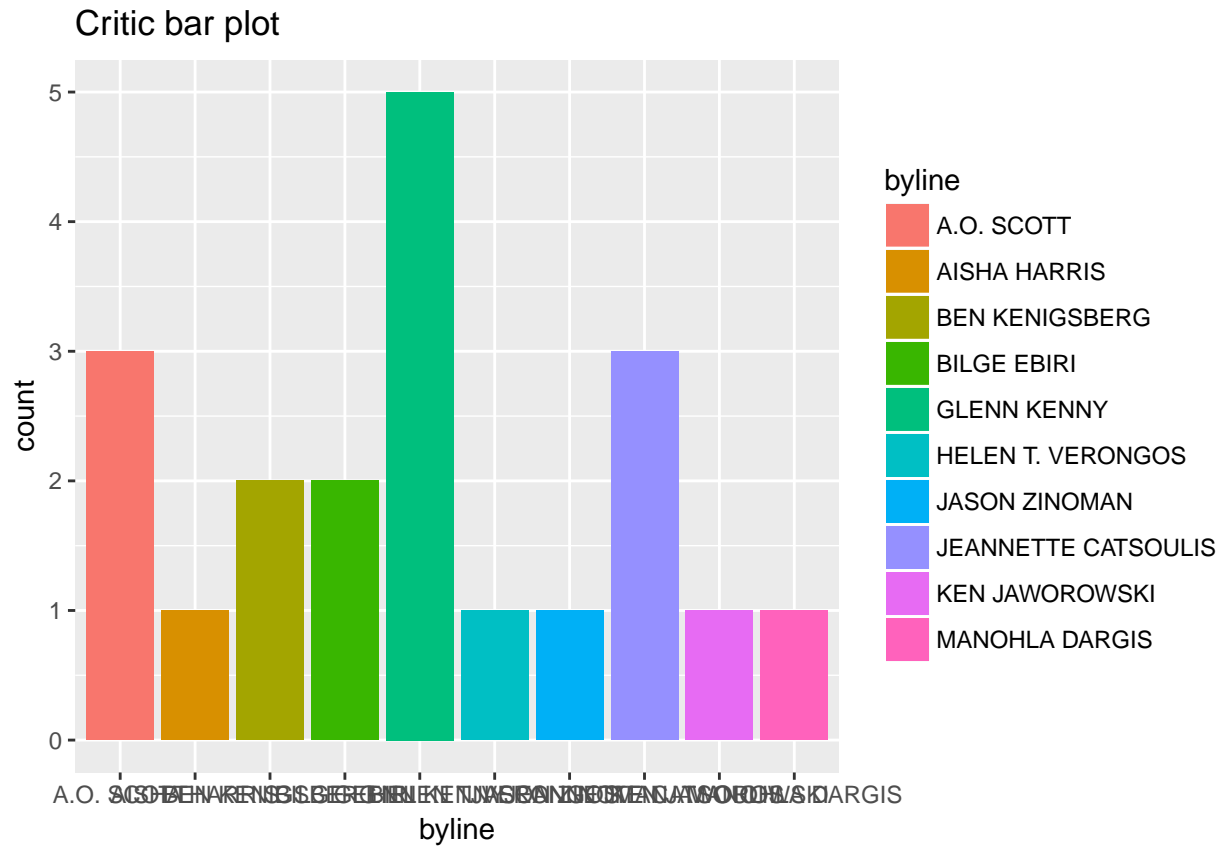


Top most critics reviews are for not rated movies

#### 6] Show bar chart of critics

```
Movie.Critics %>%
```

```
ggplot(aes(x=byline, fill=byline)) + geom_bar(position = "dodge") + # plot  
ggtitle("Critic bar plot")
```



Top most critics reviews are done by Glenn Kenny. Second largest critics review are done by AO Scott and Jeannette Catsoulis