```
1 - ---
 2 title: "Sophia ibraeva"
    author: "Sophia"
 3
    date: "2023-01-30"
 4
 5
    output:
 6
      word_document: default
 7
      pdf_document: default
 8
      html_document:
9
        df_print: paged
10 - ---
11
12 * ```{r setup, include=FALSE}
13
    knitr::opts_chunk$set(echo = TRUE)
14 -
15
16 - ```{r}
    Movie <- read.csv("~/Downloads/movie_data.csv")</pre>
17
    Movie
18
19 -
```

director_name <chr></chr>	duration <int></int>	actor_2_name <chr></chr>	
James Cameron	178	Joel David Moore	
Gore Verbinski	169	Orlando Bloom	
Sam Mendes	148	Rory Kinnear	
Christopher Nolan	164	Christian Bale	
Doug Walker	NA	Rob Walker	
Andrew Stanton	132	Samantha Morton	
Sam Raimi	156	James Franco	
Nathan Greno	100	Donna Murphy	
Joss Whedon	141	Robert Downey Jr.	
David Yates	153	Daniel Radcliffe	
1–10 of 5,043 rows 1–3 of 14 col	umns Previous	1 2 3 4 5 6	100 Ne:

```
20
21 - ```{r}
22
   str(Movie)
23 - ```
                                                                         'data.frame': 5043 obs. of 14 variables:
     $ director_name : chr "James Cameron" "Gore Verbinski" "Sam Mendes"
     "Christopher Nolan" ...
     $ duration
                    : int 178 169 148 164 NA 132 156 100 141 153 ...
     $ actor_2_name
                      : chr "Joel David Moore" "Orlando Bloom" "Rory Kinnear"
     "Christian Bale" ...
     $ aenres
                          : chr "Action|Adventure|Fantasy|Sci-Fi"
     "Action|Adventure|Fantasy" "Action|Adventure|Thriller" "Action|Thriller" ...
     $ actor_1_name
                          : chr "CCH Pounder" "Johnny Depp" "Christoph Waltz" "Tom
     Hardy" ...
     $ movie_title : chr "Avatar " "Pirates of the Caribbean: At World's
     End " "Spectre " "The Dark Knight Rises " ...
     $ num_voted_users : int 886204 471220 275868 1144337 8 212204 383056 294810
     462669 321795 ...
     $ actor_3_name : chr "Wes Studi" "Jack Davenport" "Stephanie Sigman"
     "Joseph Gordon-Levitt" ...
     $ movie_imdb_link : chr "http://www.imdb.com/title/tt0499549/?
     ref_=fn_tt_tt_1" "http://www.imdb.com/title/tt0449088/?ref_=fn_tt_tt_1"
     "http://www.imdb.com/title/tt2379713/?ref_=fn_tt_tt_1"
     "http://www.imdb.com/title/tt1345836/?ref_=fn_tt_tt_1" ...
     $ num_user_for_reviews: int 3054 1238 994 2701 NA 738 1902 387 1117 973 ...
                  : chr "English" "English" "English" "English" ...
     $ language
                        : chr "USA" "USA" "UK" "USA" ...
     $ country
     $ title_year : int 2009 2007 2015 2012 NA 2012 2007 2010 2015 2009 ...
     $ imdb_score
                      : num 7.9 7.1 6.8 8.5 7.1 6.6 6.2 7.8 7.5 7.5 ...
```

```
24
25 - ```{r}
26
    summary(Movie)
27 -
      director name
                                          actor_2_name
                            duration
                                                                genres
      Length:5043
                         Min.
                                          Length:5043
                                : 7.0
                                                             Length: 5043
      Class :character
                         1st Qu.: 93.0
                                          Class :character
                                                             Class :character
      Mode :character
                         Median :103.0
                                          Mode :character
                                                             Mode :character
                         Mean
                                 :107.2
                         3rd Qu.:118.0
                                 :511.0
                         Max.
                                 :15
                         NA's
      actor_1_name
                         movie_title
                                             num_voted_users
                                                               actor_3_name
                         Length: 5043
                                                               Length: 5043
      Length:5043
                                             Min.
                                                  •
      Class :character
                         Class:character
                                                        8594
                                                               Class :character
                                             1st Qu.:
                         Mode :character
                                                                     :character
      Mode :character
                                             Median :
                                                       34359
                                                               Mode
                                                       83668
                                             Mean
                                             3rd Qu.:
                                                       96309
                                                    :1689764
                                             Max.
```

 \wedge

num_user_for_reviews movie_imdb_link language Length:5043 Length: 5043 Min. 1.0 Class :character Class :character 1st Qu.: 65.0 Median : 156.0 Mode :character Mode :character : 272.8 Mean 3rd Ou.: 326.0 :5060.0 Max. NA's :21 country title_year imdb_score Length:5043 Min. :1.600 :1916 Min. Class :character 1st Ou.:1999 1st Ou.:5.800 Median :2005 Median :6.600 Mode :character :2002 :6.442 Mean Mean 3rd Qu.:2011 3rd Qu.:7.200 :2016 :9.500 Max. Max.

:108

NA's

```
28
29 - ```{r}
                                                                                     ₩
30
    median(Movie$imdb_score)
31 -
                                                                                         \wedge
                                                                                           ×
     [1] 6.6
32
33 -
    ```{r}
34
 summary(Movie$imdb_score)
35 -
 \hat{\wedge}
 Mean 3rd Qu.
 Min. 1st Qu. Median
 Max.
 5.800
 1.600
 6.600
 6.442
 7.200
 9.500
36
37 · ```{r}
38
 class(Movie$director_name)
39 -
 \Diamond
 [1] "character"
40
    ```{r}
41 -
                                                                                     # ₹
    class(Movie$title_year)
42
43 -
                                                                                     [1] "integer"
44
45 ~ ```{r}
46
    genre_custom=as.factor(Movie$genres)
47
    class(genre_custom)
48 -
                                                                                     \times
     [1] "factor"
49
50 - ```{r}
51
    genre_custom_cat_to_num<-unclass(genre_custom)</pre>
    class(genre_custom_cat_to_num)
52
53 -
```

```
54
55 -
    ```{r}
56
 #plot
57
 tab
58
 x=c(Movie$num_voted_users)
59
 y=c(Movie$num_user_for_reviews)
 plot(x,y, main = "scatter plot",
60
 xlab = "num_voted_users" , ylab = "num_user_for_reviews")
61
62
 abline(lm(y\sim x), col= "Blue")
63 -
 R Console
 scatter plot
 5000
 0
 0
 num_user_for_reviews
 0
 0
 0 0
 3000
 0
 0
 0
 ಹಿ ತಿಹ್ದ
 0
 1000
 0
 500000
 1000000
 1500000
 num_voted_users
```