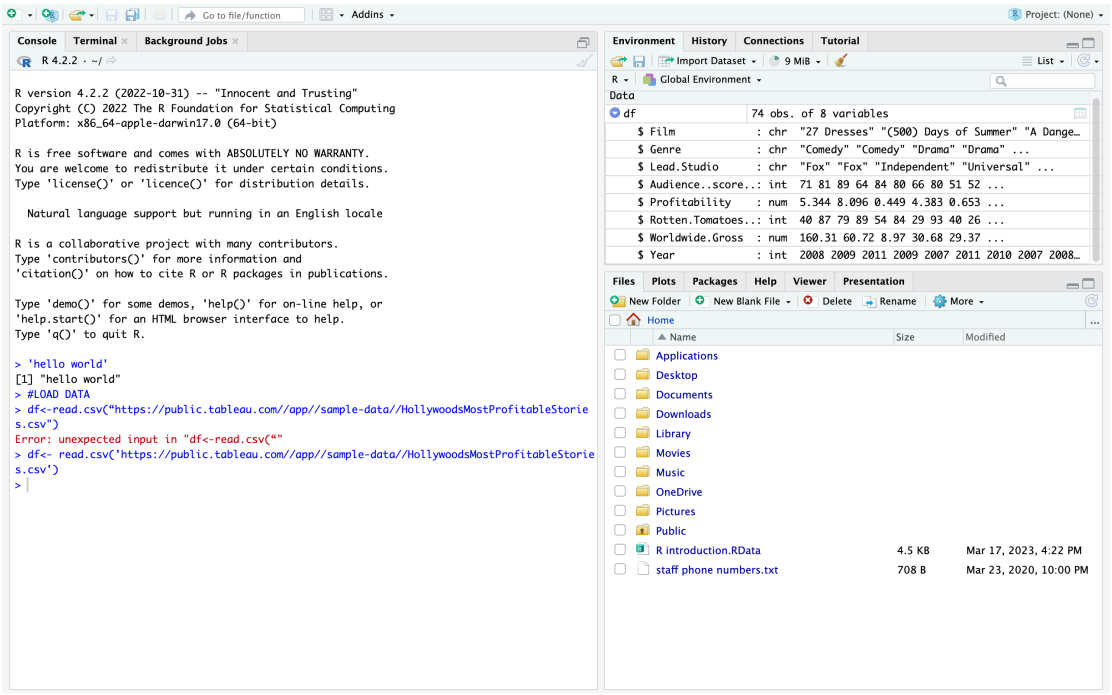
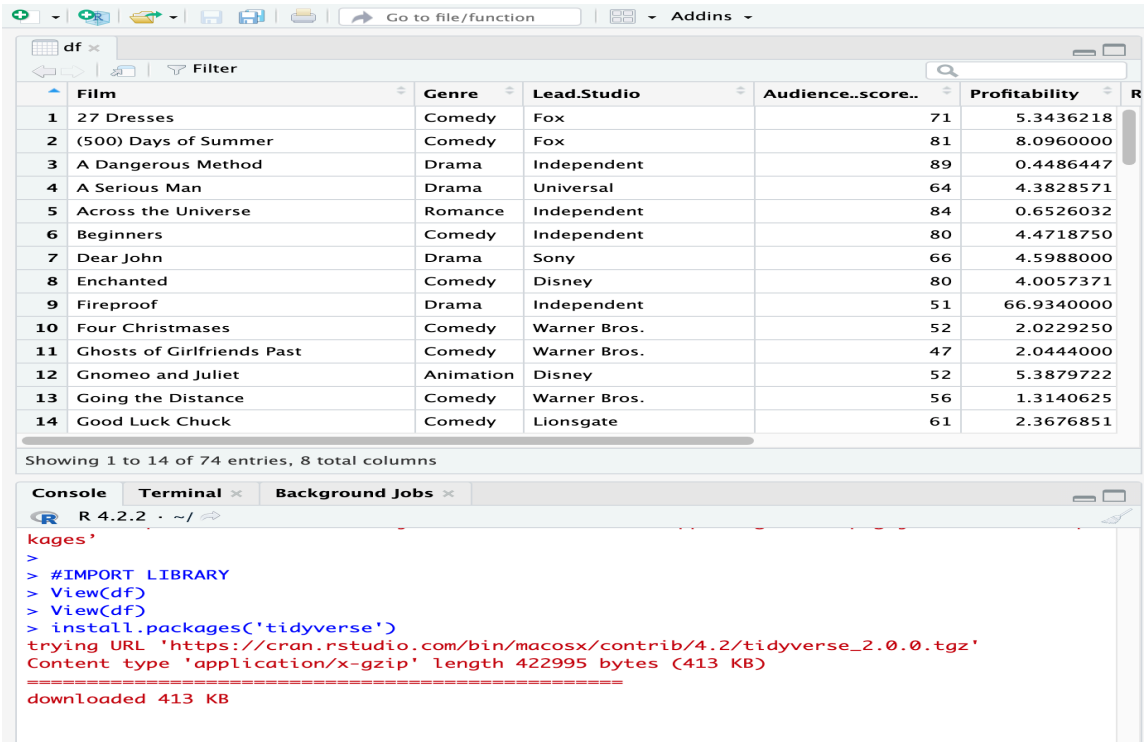
STEP 1: INITIAL EXPLORATORY ANALYSIS

1. LOADING DATA FROM THE WEB USING SYNTAX **df<- read.csv ()** AND VIEWING THE DF FILE IN ENVIRONMENT.



N/B: INCLUDING A // HELPED TO ELIMINATE THE ERROS THAT CAME UP.

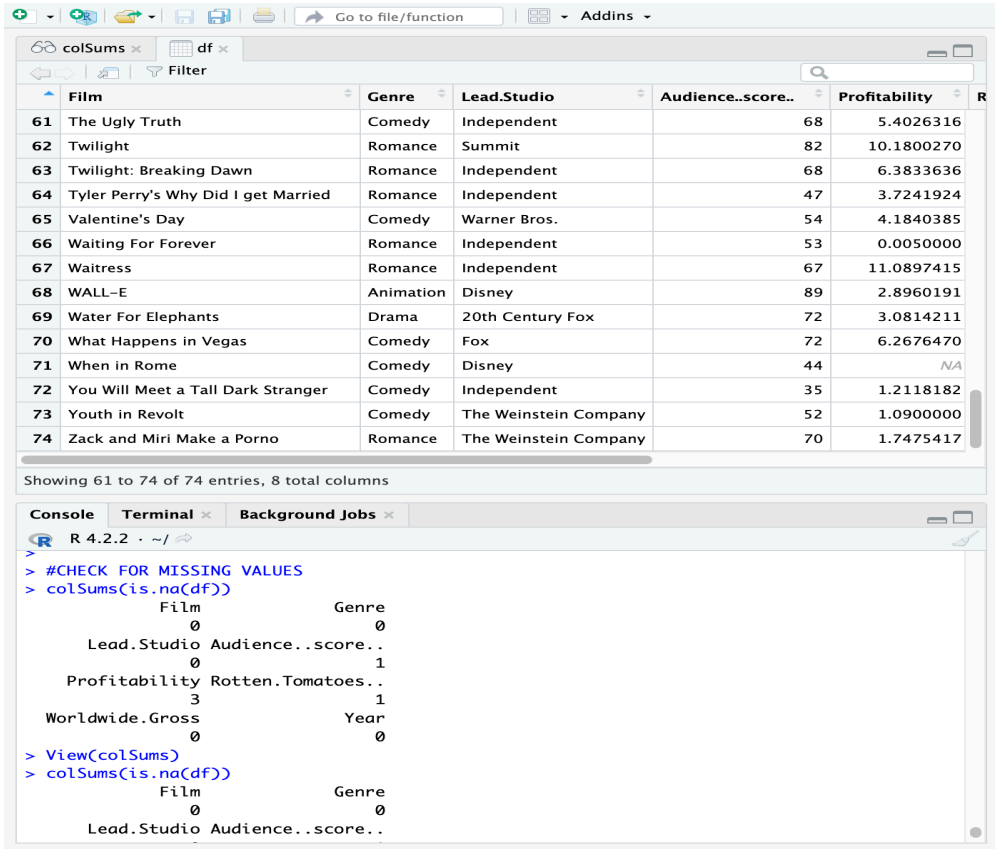
2. VIEWING, IMPORTING AND LOADING LIBRARY



N/B USED SYNTAX View(df) TO SEE THE TABLE AT THE TOP OF THE CONSOLE IN A TABLE

STEP 2: CLEAN DATA

3. CHECKING FOR MISSING VALUES USING **colSums(is.na(df))**

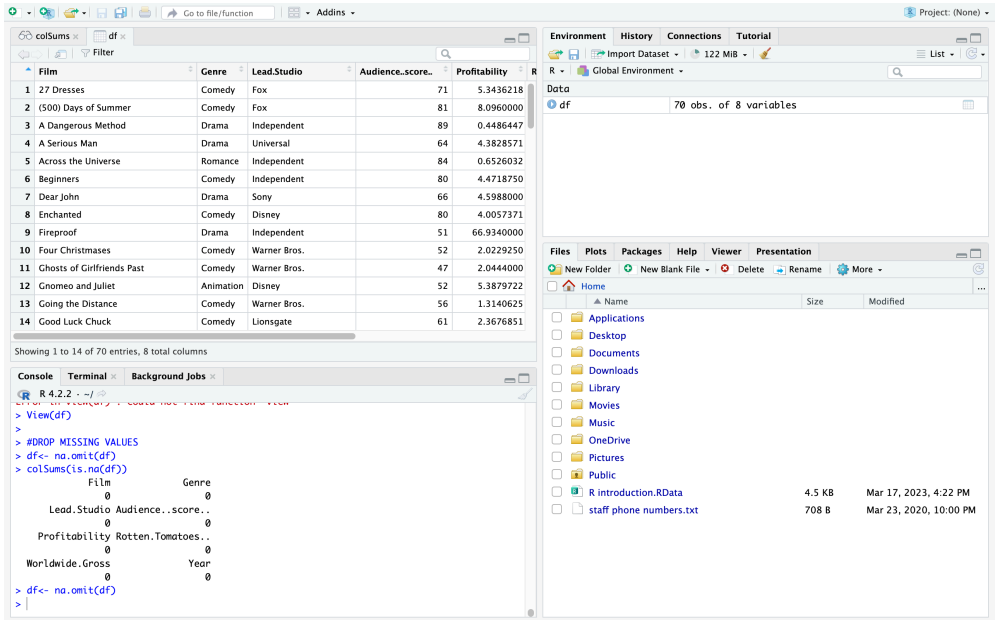


	Film	Genre	Lead.Studio	Audience..score..	Profitability	R
61	The Ugly Truth	Comedy	Independent	68	5.4026316	
62	Twilight	Romance	Summit	82	10.1800270	
63	Twilight: Breaking Dawn	Romance	Independent	68	6.3833636	
64	Tyler Perry's Why Did I get Married	Romance	Independent	47	3.7241924	
65	Valentine's Day	Comedy	Warner Bros.	54	4.1840385	
66	Waiting For Forever	Romance	Independent	53	0.0050000	
67	Waitress	Romance	Independent	67	11.0897415	
68	WALL-E	Animation	Disney	89	2.8960191	
69	Water For Elephants	Drama	20th Century Fox	72	3.0814211	
70	What Happens in Vegas	Comedy	Fox	72	6.2676470	
71	When in Rome	Comedy	Disney	44	NA	
72	You Will Meet a Tall Dark Stranger	Comedy	Independent	35	1.2118182	
73	Youth in Revolt	Comedy	The Weinstein Company	52	1.0900000	
74	Zack and Miri Make a Porno	Romance	The Weinstein Company	70	1.7475417	

Showing 61 to 74 of 74 entries, 8 total columns

```
> #CHECK FOR MISSING VALUES
> colSums(is.na(df))
               Film               Genre
                  0                   0
       Lead.Studio Audience..score..
                  0                   1
    Profitability Rotten.Tomatoes..
                  3                   1
  Worldwide.Gross                Year
                  0                   0
> View(colSums)
> colSums(is.na(df))
               Film               Genre
                  0                   0
       Lead.Studio Audience..score..
```

4. DROPPED MISSING VALUES USING **df<- na.omit(df)**



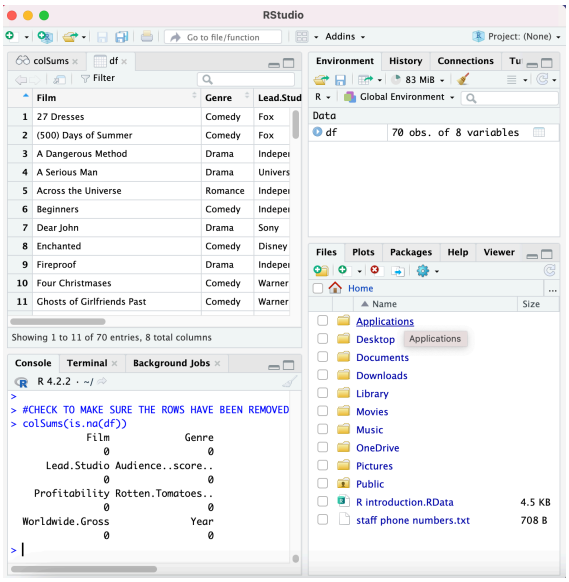
	Film	Genre	Lead.Studio	Audience..score..	Profitability
1	27 Dresses	Comedy	Fox	71	5.3436218
2	(500) Days of Summer	Comedy	Fox	81	8.0960000
3	A Dangerous Method	Drama	Independent	89	0.4486447
4	A Serious Man	Drama	Universal	64	4.3828571
5	Across the Universe	Romance	Independent	84	0.6526032
6	Beginners	Comedy	Independent	80	4.4718750
7	Dear John	Drama	Sony	66	4.5988000
8	Enchanted	Comedy	Disney	80	4.0057371
9	Fireproof	Drama	Independent	51	66.9340000
10	Four Christmases	Comedy	Warner Bros.	52	2.0229250
11	Ghosts of Girlfriends Past	Comedy	Warner Bros.	47	2.0444000
12	Gnomeo and Juliet	Animation	Disney	52	5.3879722
13	Going the Distance	Comedy	Warner Bros.	56	1.3140625
14	Good Luck Chuck	Comedy	Lionsgate	61	2.3676851

Showing 1 to 14 of 70 entries, 8 total columns

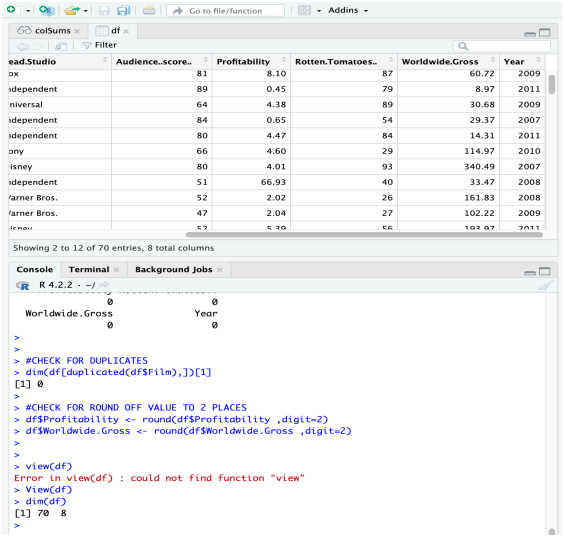
```
> View(df)
>
> #DROP MISSING VALUES
> df<- na.omit(df)
> colSums(is.na(df))
               Film               Genre
                  0                   0
       Lead.Studio Audience..score..
                  0                   0
    Profitability Rotten.Tomatoes..
                  0                   0
  Worldwide.Gross                Year
                  0                   0
> df<- na.omit(df)
>
```

N/B I NOTICED 4 OUT OF 74 OBS WERE OMITTED FROM THE DATA LEAVING 70 OBS

5. CONFIRMED ROWS HAVE BEEN REMOVED **colSums(is.na(df))**

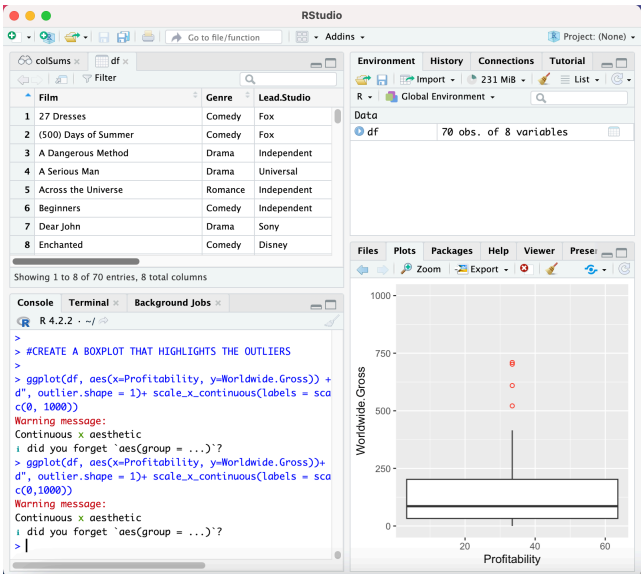


6. CHECKING FOR DUPLICATES AND ROUNDING OFF VALUES TO 2 PLACES



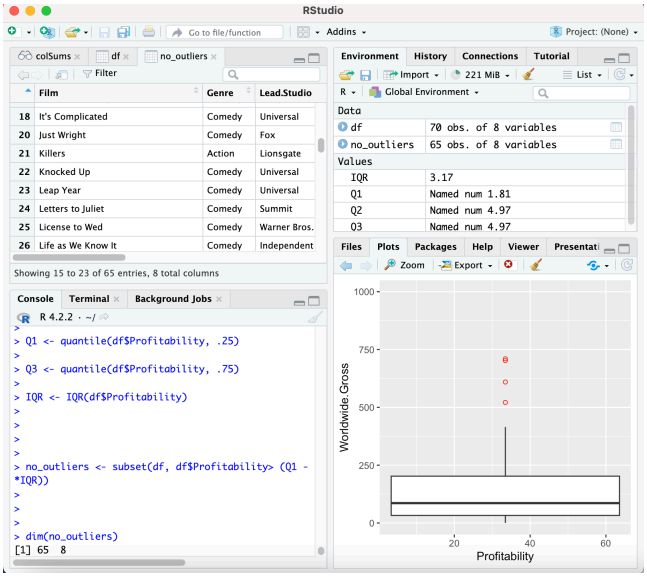
STEP 2.1 OUTLIER REMOVAL

7. CHECKING FOR OUTLIERS USING A BOXPLOT USING **library(ggplot2)**



Boxplots display asterisks or other symbols on the graph to indicate explicitly when datasets contain outliers. These graphs use the interquartile method with fences to find outliers, which I explain later. The boxplot below displays our example dataset. It's clear that the outlier is quite different than the typical data value.

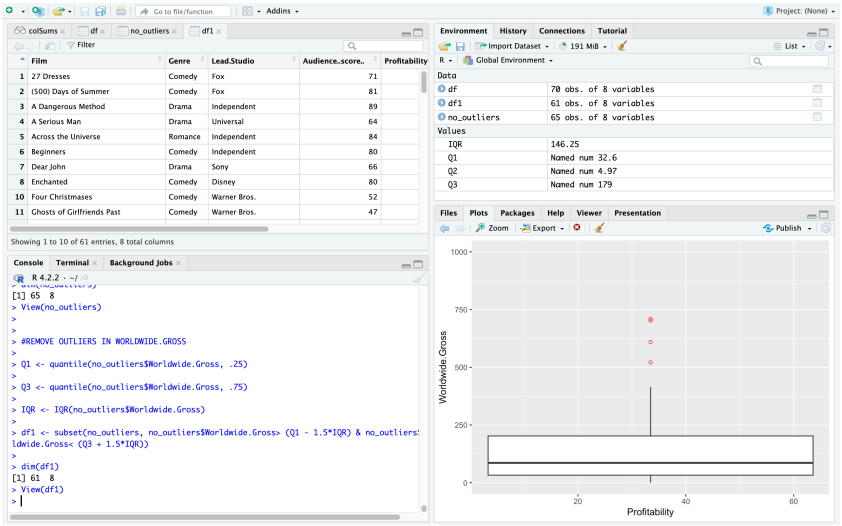
8. REMOVING OUTLIERS IN "PROFITABILITY"



The IQR is the middle 50% of the dataset. It's the range of values between the third quartile and the first quartile (Q3 – Q1). We can take the IQR, Q1, and Q3 values to calculate the following outlier fences for our dataset: lower outer, lower inner, upper inner, and upper outer. These fences determine whether data points are outliers and whether they are mild or extreme.

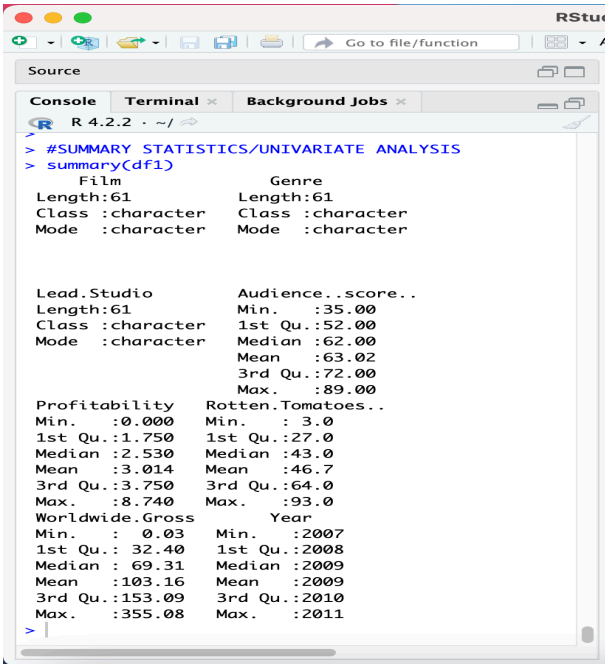
N/B: Values that fall inside the two inner fences are not outliers. Let's see how this method works using our example dataset.

9. REMOVING OUTLIERS IN “WORLDWIDE.GROSS”

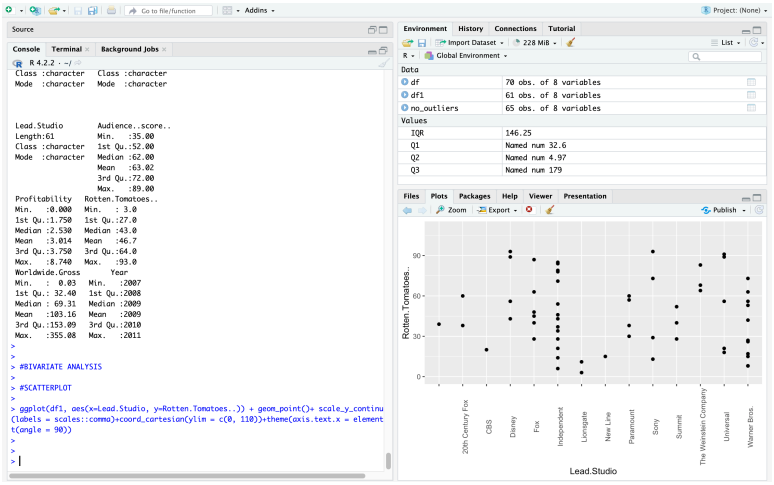


STEP 3: EXPLORATORY DATA ANALYSIS

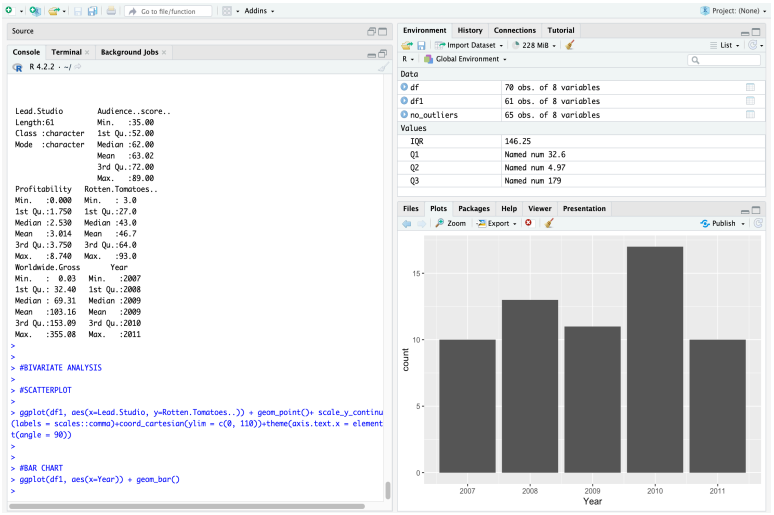
10. SUMMARY STATISTICS/UNIVARIATE ANALYSIS



11. BIVARIATE ANALYSIS USING SCATTER PLOT

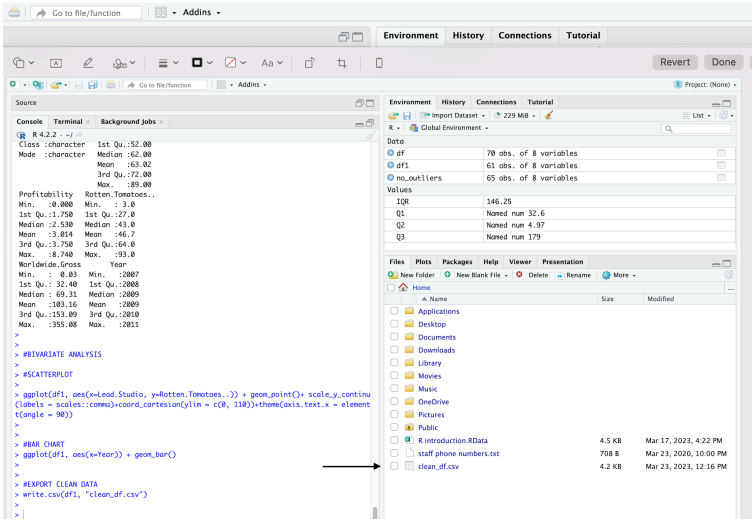


12. BIVARIATE ANALYSIS USING BAR CHART



STEP 4: EXPORT DATA

13. EXPORTING CLEAN DATA



STEP 5: CREATE POWER BI DASHBOARDS

14. THE AVERAGE ROTTEN TOMATOES RATING OF EACH GENRE
15. THE PROFITABILITY PER STUDIO
16. THE AUDIENCE SCORE FOR EACH FILM
17. THE WORLDWIDE GROSS PER GENRE
18. THE NUMBER OF MOVIES PRODUCED PER YEAR