Sentiment Analysis for Theatrical Reviews

By Kai Tamashiro

The Question

Are we able to find correlation between a critic's review of a show and the show's financial success? How much of an effect does genre or show type have, if any?

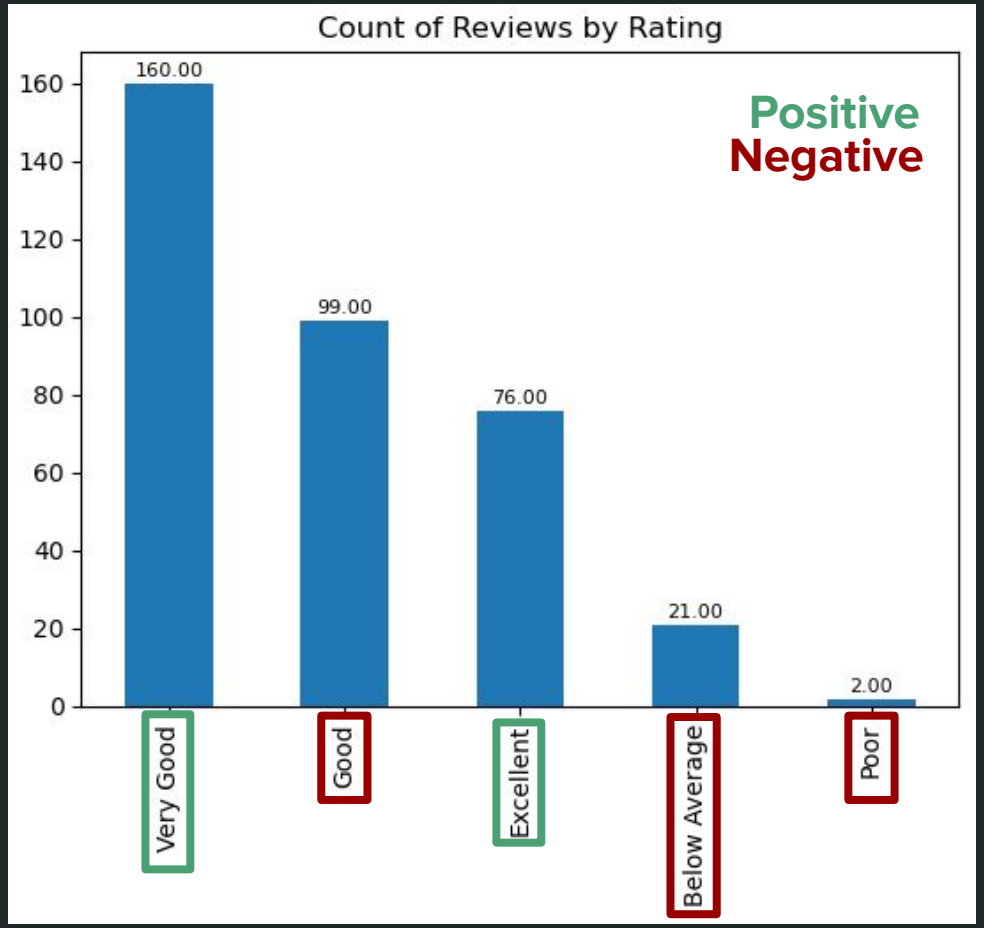
Scrapy

New York Theatre Guide

358 reviews

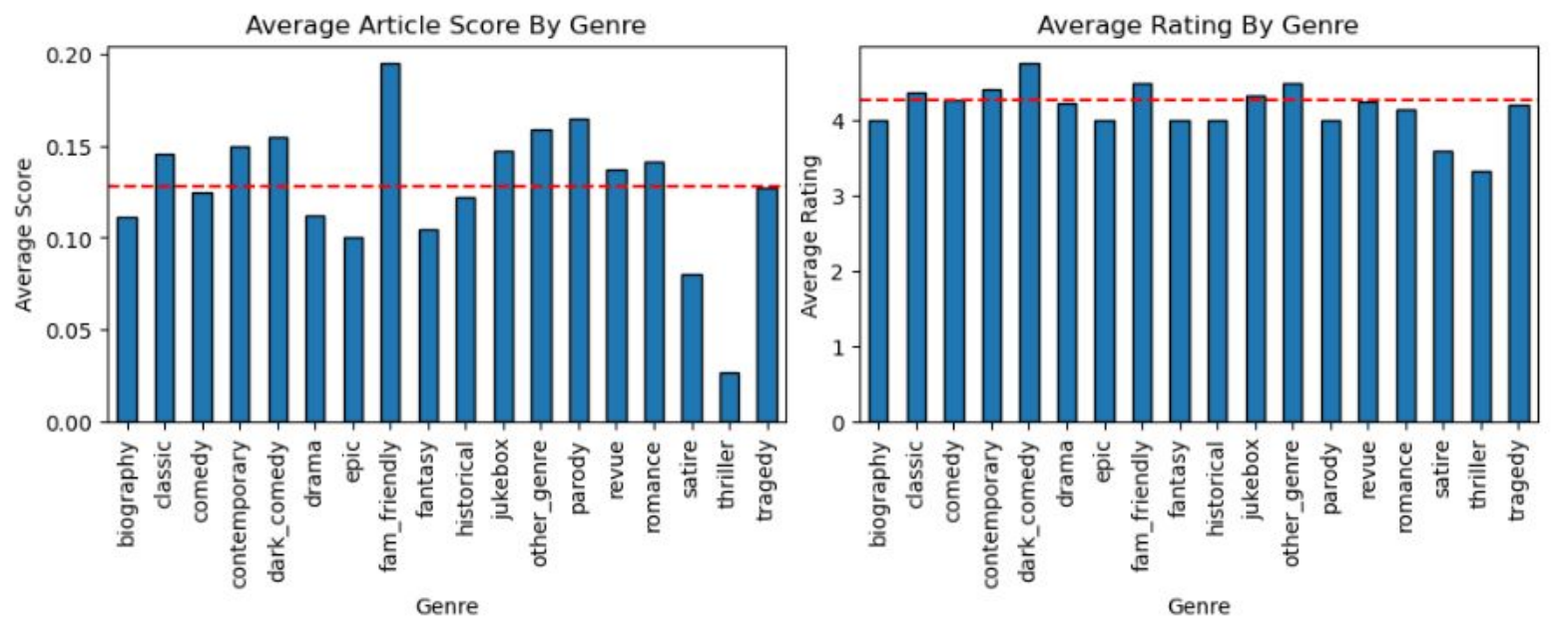
PLAYBILL®

~50,000 rows


Count of Reviews by Rating
160.00
99.00
76.00
21.00
2.00
160
140
120
100
80
60
40
20
0
Positive
Negative
Very Good
Good
Excellent
Below Average
Poor

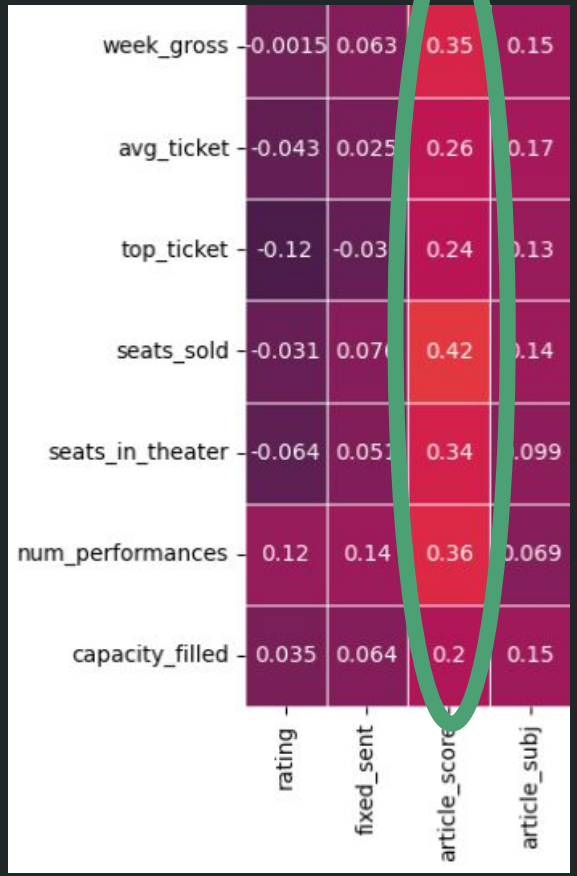
Higher variance

Lower variance

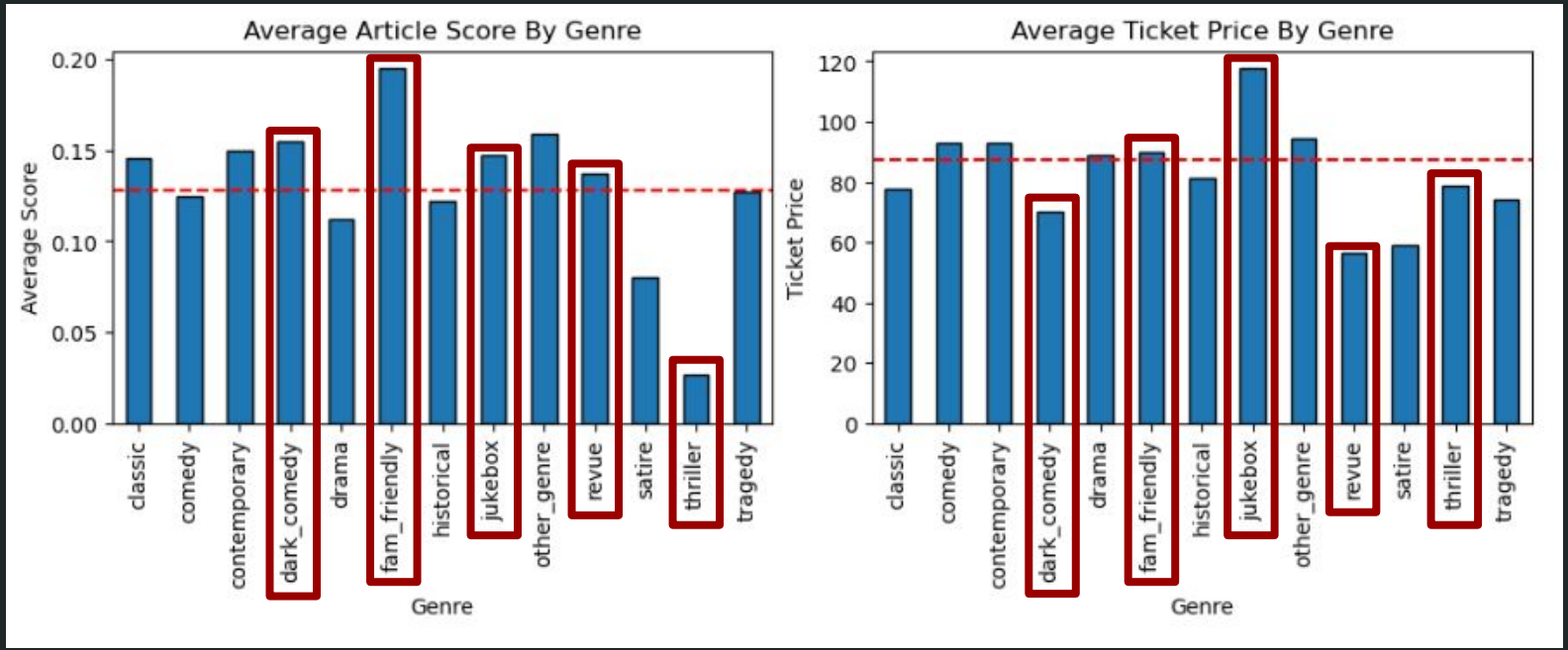


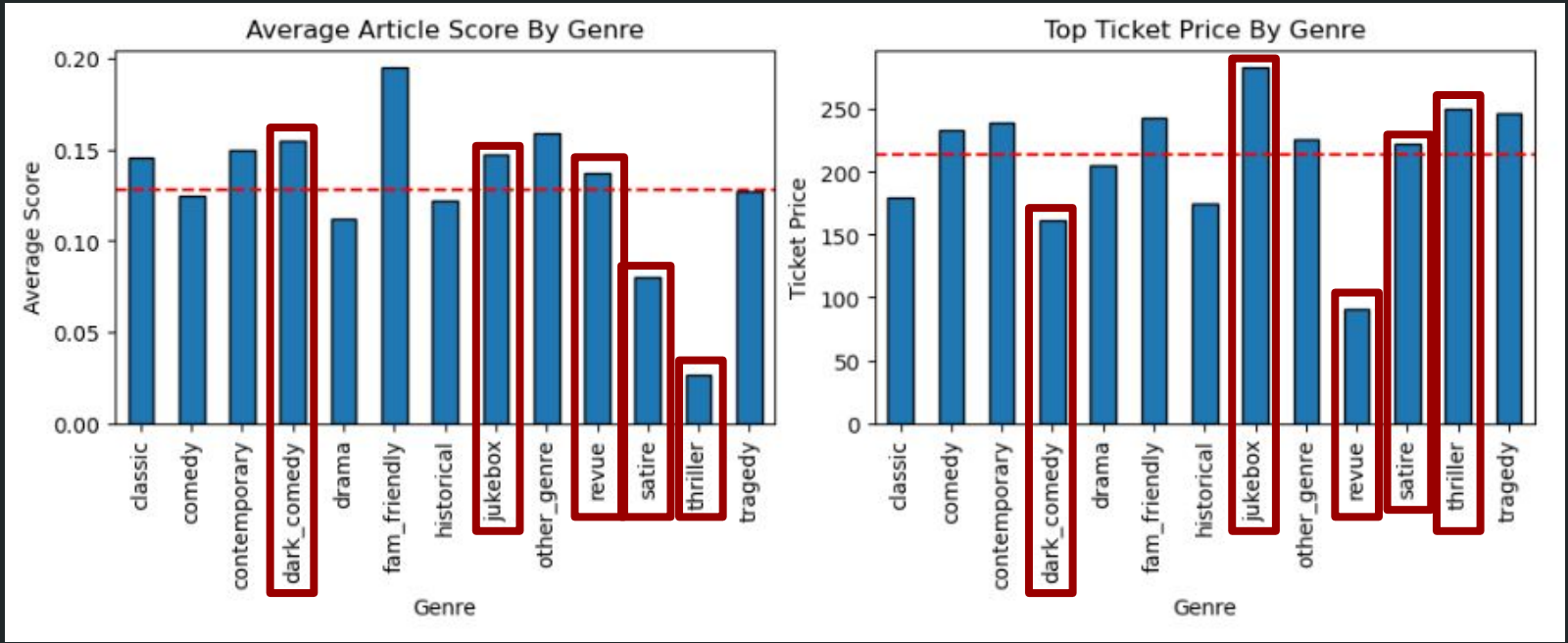
Tells a better story

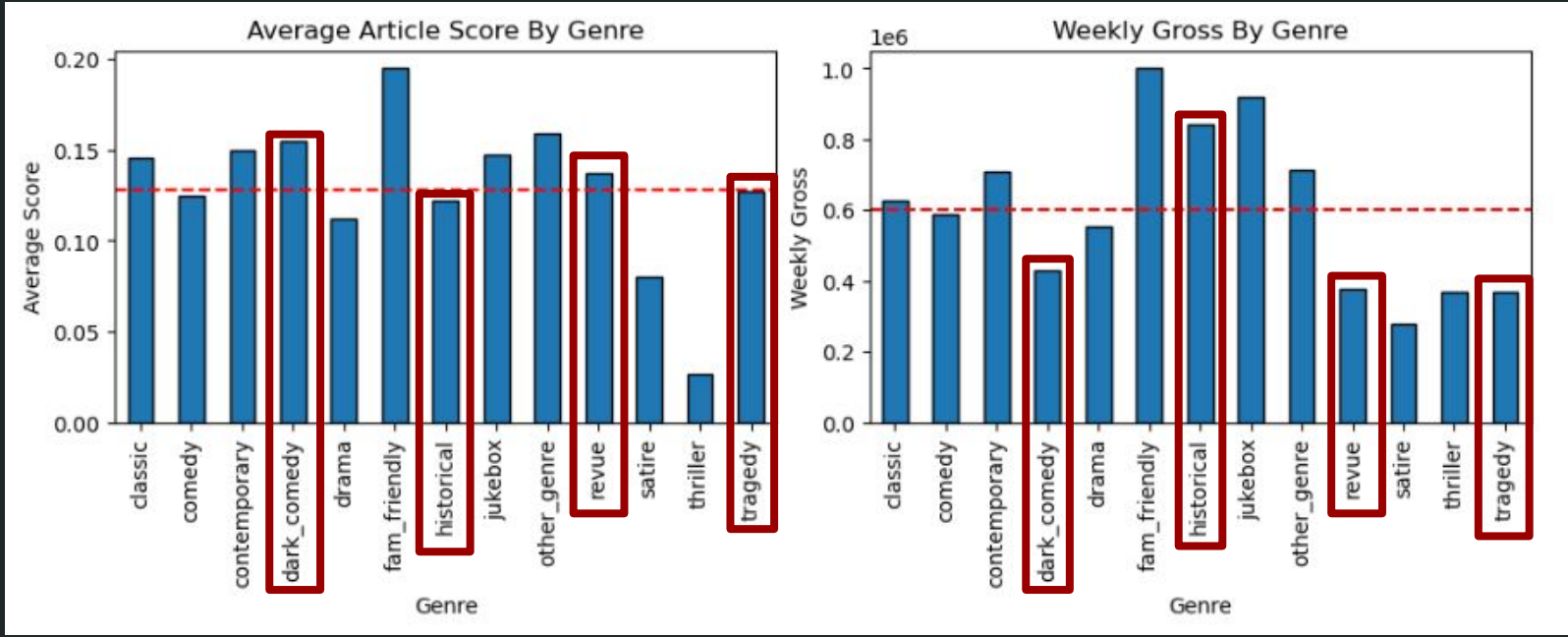
Not a lot to infer

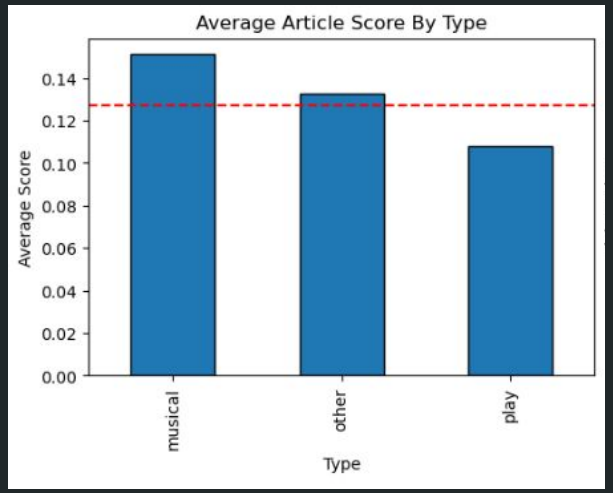

week_gross
avg_ticket
top_ticket
seats_sold
seats_in_theater
num_performances
capacity_filled
-0.0015
0.063
0.35
0.15
-0.043
0.025
0.26
0.17
-0.12
-0.03
0.24
0.13
-0.031
0.07
0.42
0.14
-0.064
0.051
0.34
0.099
0.12
0.14
0.36
0.069
0.035
0.064
0.2
0.15
rating
fixed_sent
article_score
article_subj

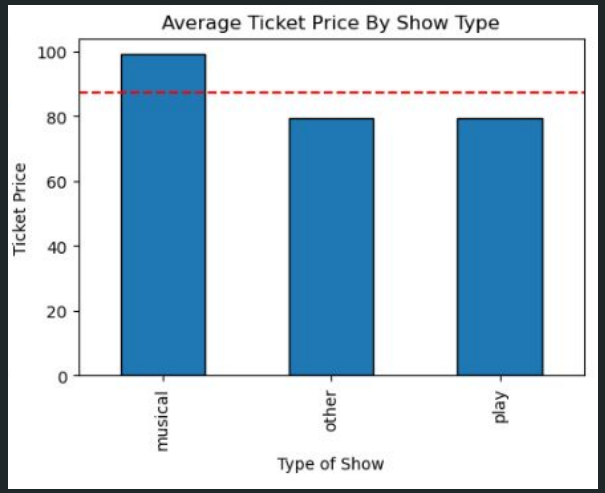
Our focus

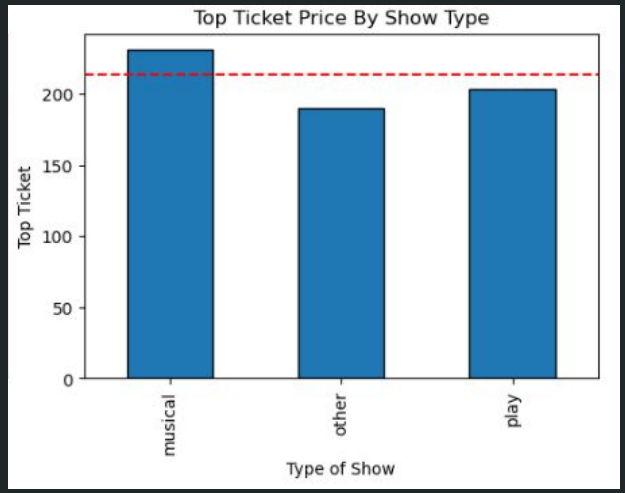

Average Article Score By Genre
Average Score
0.20
0.15
0.10
0.05
0.00
classic
comedy
contemporary
dark_comedy
drama
fam_friendly
historical
jukebox
other_genre
revue
satire
thriller
tragedy
Genre
Average Ticket Price By Genre
Ticket Price
120
100
80
60
40
20
0
classic
comedy
contemporary
dark_comedy
drama
fam_friendly
historical
jukebox
other_genre
revue
satire
thriller
tragedy
Genre

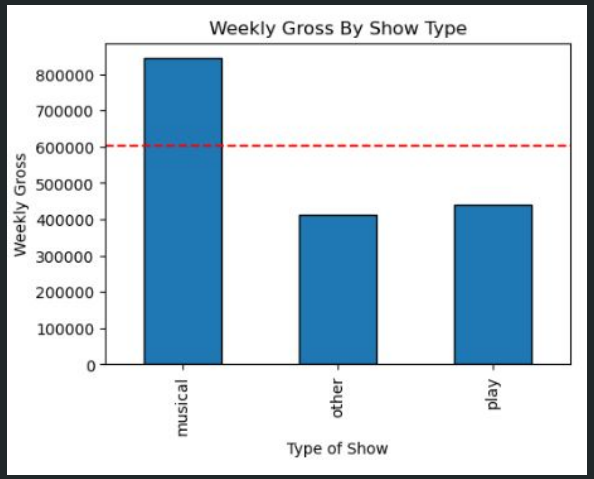

Average Article Score By Genre
Average Score
0.20
0.15
0.10
0.05
0.00
classic
comedy
contemporary
dark_comedy
drama
fam_friendly
historical
jukebox
other_genre
revue
satire
thriller
tragedy
Genre
Top Ticket Price By Genre
Ticket Price
250
200
150
100
50
0
classic
comedy
contemporary
dark_comedy
drama
fam_friendly
historical
jukebox
other_genre
revue
satire
thriller
tragedy
Genre

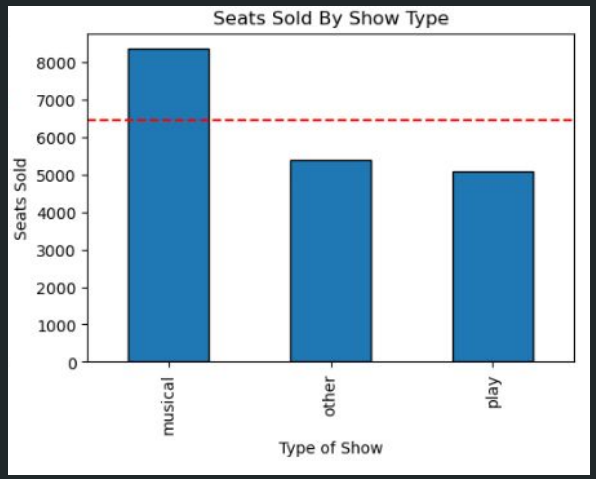

Average Article Score By Genre
Average Score
0.20
0.15
0.10
0.05
0.00
classic
comedy
contemporary
dark_comedy
drama
fam_friendly
historical
jukebox
other_genre
revue
satire
thriller
tragedy
Genre
Weekly Gross By Genre
1e6
Weekly Gross
1.0
0.8
0.6
0.4
0.2
0.0
classic
comedy
contemporary
dark_comedy
drama
fam_friendly
historical
jukebox
other_genre
revue
satire
thriller
tragedy
Genre


Average Article Score By Type
Average Score
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
musical
other
play
Type


Average Ticket Price By Show Type
Ticket Price
100
80
60
40
20
0
musical
other
play
Type of Show


Top Ticket Price By Show Type
Top Ticket
200
150
100
50
0
musical
other
play
Type of Show


Weekly Gross By Show Type
Weekly Gross
800000
700000
600000
500000
400000
300000
200000
100000
0
musical
other
play
Type of Show


Seats Sold By Show Type
Seats Sold
8000
7000
6000
5000
4000
3000
2000
1000
0
musical
other
play
Type of Show

What’s next?

- Crawl more websites
- Reviews from critics AND audience
- More effective web scraping tool?