James Bond
Exploratory Analysis

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This data set is the set of all James Bond movies that had been released up to 2015, with various details about each such as information about the cast, as well as information about the films' length and rating, with some specific classic Bond details. The James Bond series is a series of spy movies that follow MI6 agent James Bond as he tackles larges scale villains who plot against the world. Bond is known for his high class living and expensive lifestyle, with many movies including expensive cars and general fancy situations. Many actors have dawned the moniker of James Bond, and the film series has served as the influence for many other action-thriller movies.

This data set contains 24 rows and 27 columns, with a total of 648 values, with 2 float, 15 integers, and 10 objects.

Variable name	*Data Type*	*Missing Data (%)*
Year	Int64	0
Movie	Object/Nominal	0
Bond	Object/Nominal	0
Director	Object/Nominal	0
Composer	Object/Nominal	0
Writer	Object/Nominal	0
Cinematographer	Object/Nominal	0
Depicted_Fil_Loc	Object/Nominal	0
Shooting_Loc	Object/Nominal	0
Bond_Car_MFG	Object/Nominal	0
Bond_Girl_Nat	Object/Nominal	0
US_Gross	Int64/Ratio	0
US_Adj	Int64/Ratio	0
World_Gross	Int64/Ratio	0
World_Adj	Int64/Ratio	0
Budget	Int64/Ratio	0
Budget_Adj	Int64/Ratio	0
Film_Length	Int64/Ratio	0
Avg_User_IMDB	Float64/Interval	0
Avg_User_Rtn_Tom	Float64/Interval	0
Conquests	Int64/Ratio	0
Martinis	Int64/Ratio	0
BJB	Int64/Ratio	0
Kills_Bond	Int64/Ratio	0
Kills_Others	Int64/Ratio	0
Top_100	Int64/Binary	0
Video Game	Int64/Binary	0

DATA SET SUMMARY STATISTICS

Variable Name	*Count*	*Mean*	*Standard Deviation*	*Min*	*25th*	*50th*	*75th*	*Max*

US Gross	24	8.576758 e+07	7.116355 e+07	1.606704 e+07	4.117500 e+07	5.299250 e+07	1.257109 e+08	3.043603 e+08
US_Adj	24	197093.958 333	91824.5473 67	64907	143166.5	181943.5	211977.75	468754
World_Gross	24	2.882462e+ 08	2.657106e+ 08	5.956704e+ 07	1.226750e+ 08	1.864500e+ 08	3.577551e+ 08	1.108561e+ 09
World_Adj	24	6.264529e+ 05	2.161362e+ 05	2.923920e+ 05	4.832292e+ 05	5.780285e+ 05	7.266525e+ 05	1.120980e+ 06
Budget	24	62091.66	75828.56	1000	7800	29000	104000	245000
Budget_Adj	24	95128.25	70676.67	7688.	48274.50	68923.50	127878	248014
Film_Length	24	126.83	10.96	106.	119.75	127.50	131.50	148.00
Avg_User_IM DB	24	6.85	0.51	6	6.5	6.8	7.125	7.9
Avg_User_Rtn _Tom	24	6.48	0.96	4.7	5.975	6.3	6.825	8.4
Conquests	24	2.54	0.77	1	2	3	3	4
Martinis	24	1.08	1.31	0	0	1	1	6
BJB	24	1.083	0.65	0	1	1	1.25	2
Kills_Bond	24	17	11.34	1	8.75	14	26.25	47
Kills_Others	24	49.08	51.56	5	15.75	32.5	59.75	205

CATEGORICAL VARIABLES

Bond	Frequency	Proportion (%)
Sean Connery	6	25%
George Lazenby	1	4%
Roger Moore	7	29%
Timothy Dalton	2	8%
Pierce Brosnan	4	16.6%
Daniel Craig	4	16.6%

Director	Frequency	Proportion (%)
Terrence Young	3	12.5%
Guy Hamilton	4	16.6%
Lewis Gilbert	3	12.5%
Peter R. Hunt	1	4%
John Glen	5	20.8%
Martin Campbell	1	4%
Roger Spottiswoode	1	4%
Michael Apted	2	8%

Lee Tamahori	1	4%
Marc Forester	1	4%
Sam Mendes	2	8%

Composer	Frequency	Proportion (%)
Monty Norman	1	4%
John Barry	11	45.8%
George Martin	1	4%
Marvin Hamlisch	1	4%
Bill Conti	1	4%
Michael Kamen	1	4%
Eric Serra	1	4%
David Arnold	5	20.8%
Thomas Newman	2	8%

Writer	Frequency	Proportion (%)
Richard Maibaum	4	16.6%
Ronald Dahl	1	4%
Tom Mankiewicz	3	12.5%
Christopher Wood	2	8%
George MacDonald	1	4%
Michael G Wilson	5	20.8%
Michael France	1	4%
Bruce Feirstein	1	4%
Neal Purvis	5	20.8%
Paul Haggins	1	4%

Cinematographer	Frequency	Proportion (%)
Ted Moore	7	29.2%
Freddie Young	1	4%
Michael Reed	1	4%
Claude Renoir	1	4%
Jean Tournier	1	4%
Alan Hume	3	12.5%
Alec Mills	2	8%
Phil Meneux	2	8%
Robert Elswit	1	4%
Adrian Biddle	1	4%
David Tattersall	1	4%
Roberto Schaefer	1	4%
Roger Deakins	1	4%
Hoyte Van Hoytema	1	4%

Depicted Film Location	Frequency	Proportion (%)
Great Britain	7	29.2%
United States	4	16.6%
France	1	4%
Portugal	1	4%

Japan	1	4%
Austria	1	4%
Russia	4	16.6%
Spain	1	4%
South Korea	1	4%
Czech Republic	1	4%
Italy	1	4%
Turkey	1	4%
Mexico	1	4%

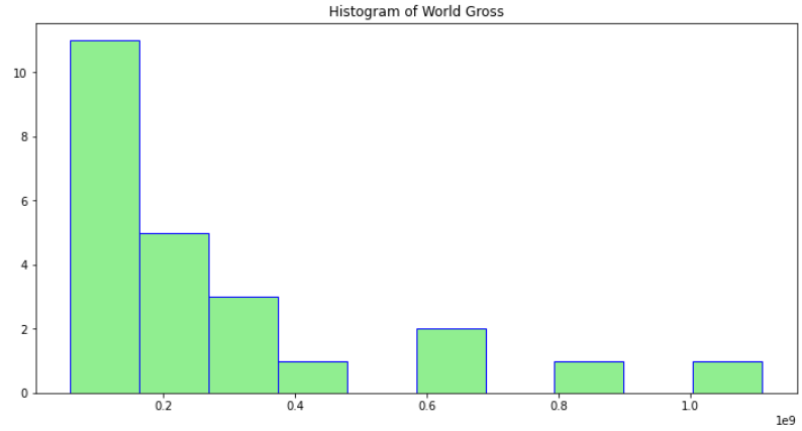
Shooting Location	Frequency	Proportion (%)
England	22	92%
Japan	1	4%
Mexico	1	4%

Bond Car	Frequency	Proportion (%)
SunBeam	1	4%
Bently	1	4%
Aston Martin	9	37.5%
Toyota	1	4%
Mercury	1	4%
Ford	1	4%
AMC	2	8%
Lotus	2	8%
Citroen	1	4%
Bajaj	1	4%
Rolls Royce	2	8%
BMW	2	8%

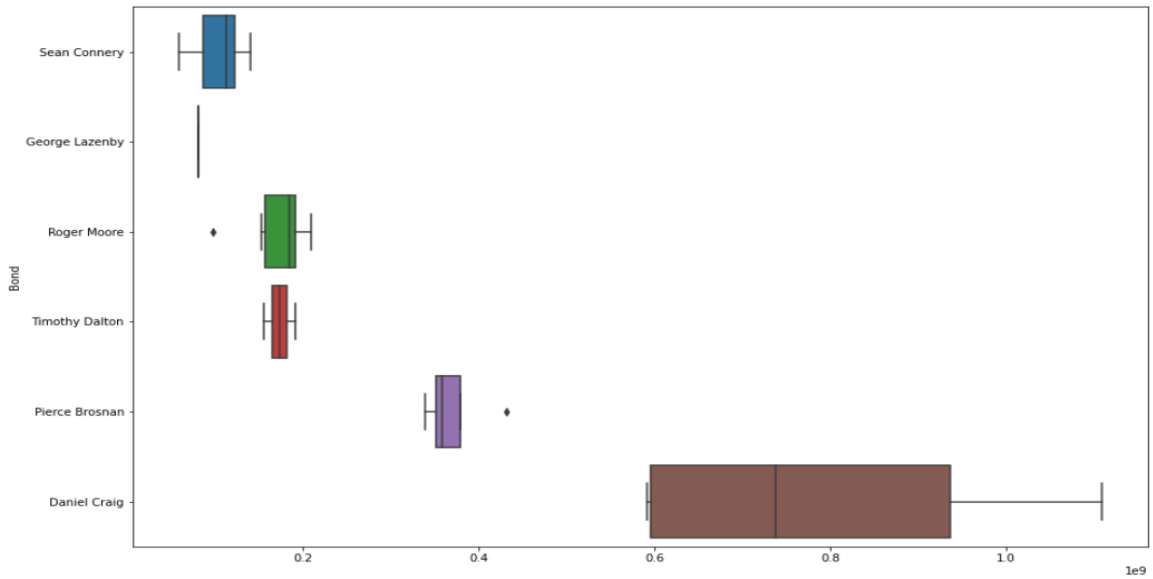
Bond Girl Nat	Frequency	Proportion (%)
English	8	33.3%
Serbian	1	4%
French	4	16.6%
Japanese	1	4%
American	9	37.5%
Polish	1	4%

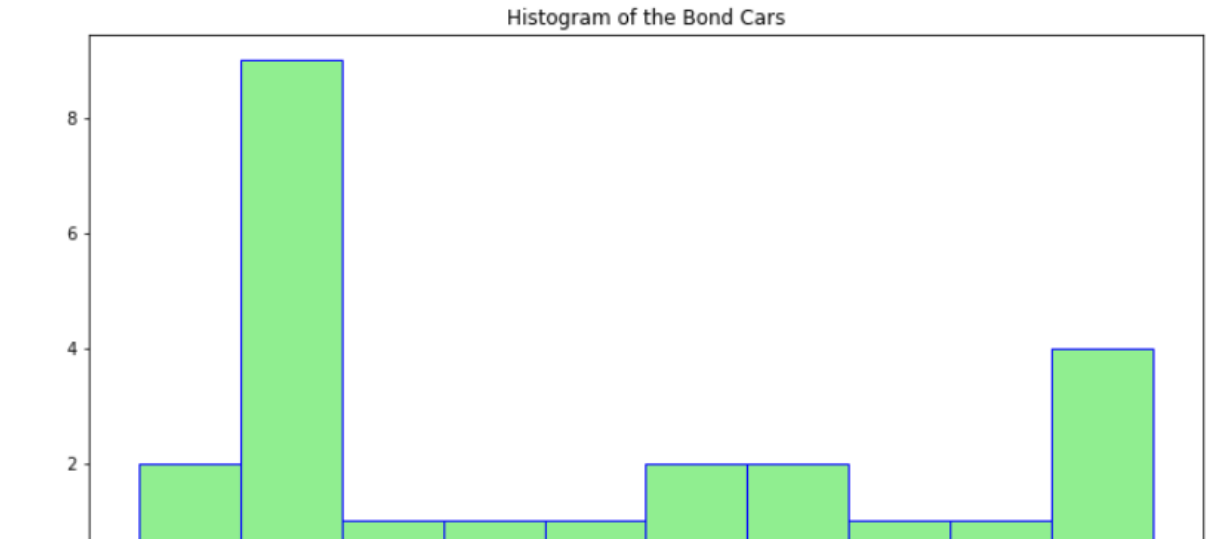
CORRELATION TABLE

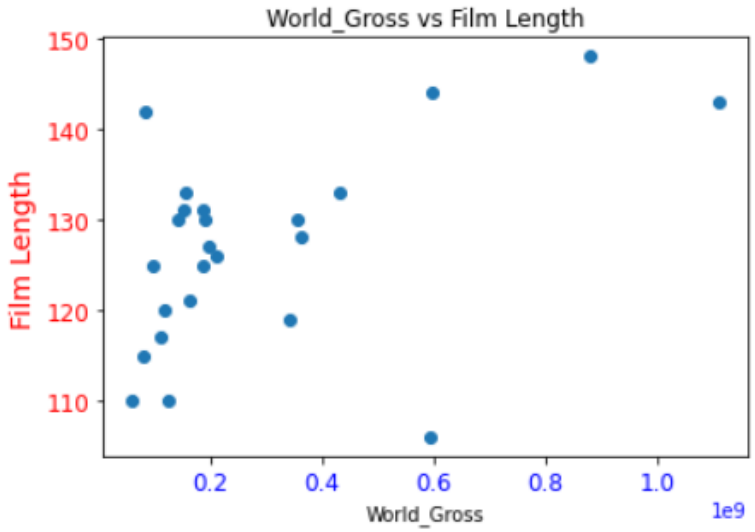
DATA SET GRAPHICAL EXPLORATION

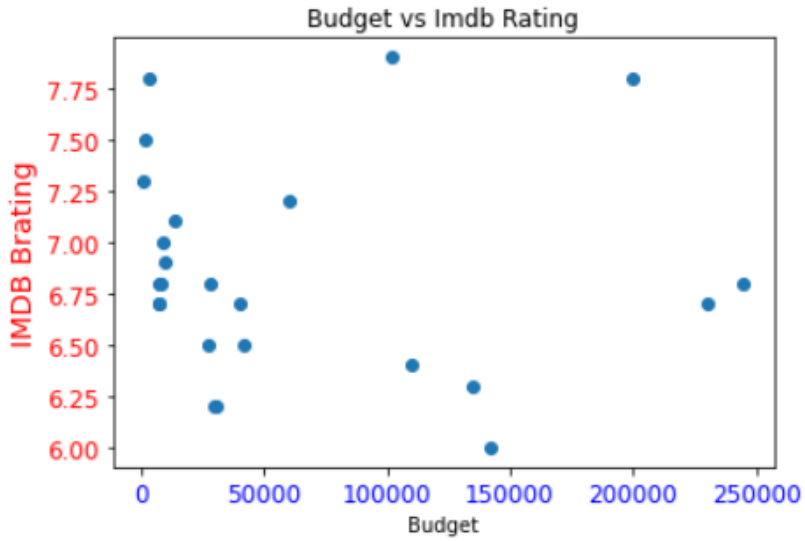


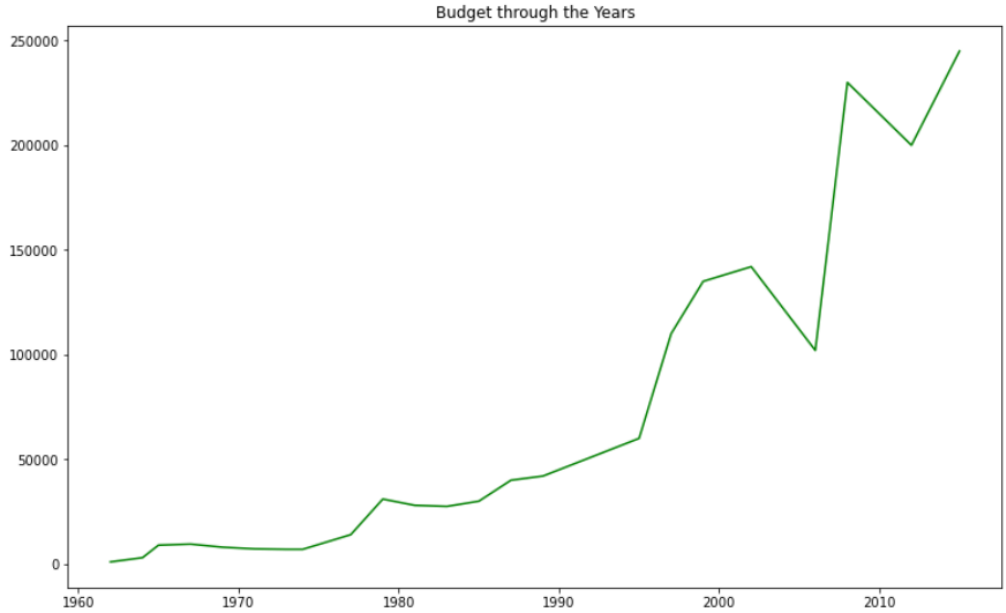
Box Plot of Bond Actor and their World Grosses per movie

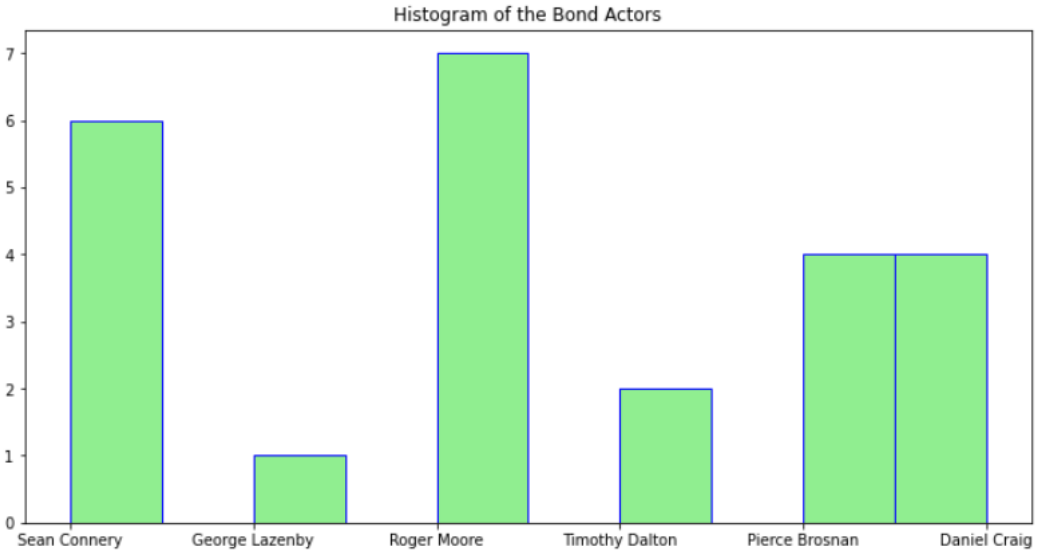


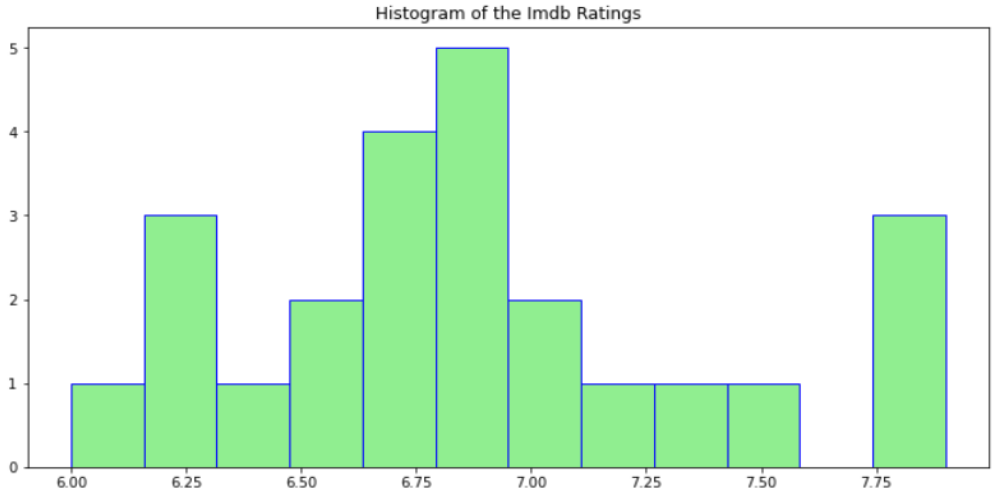


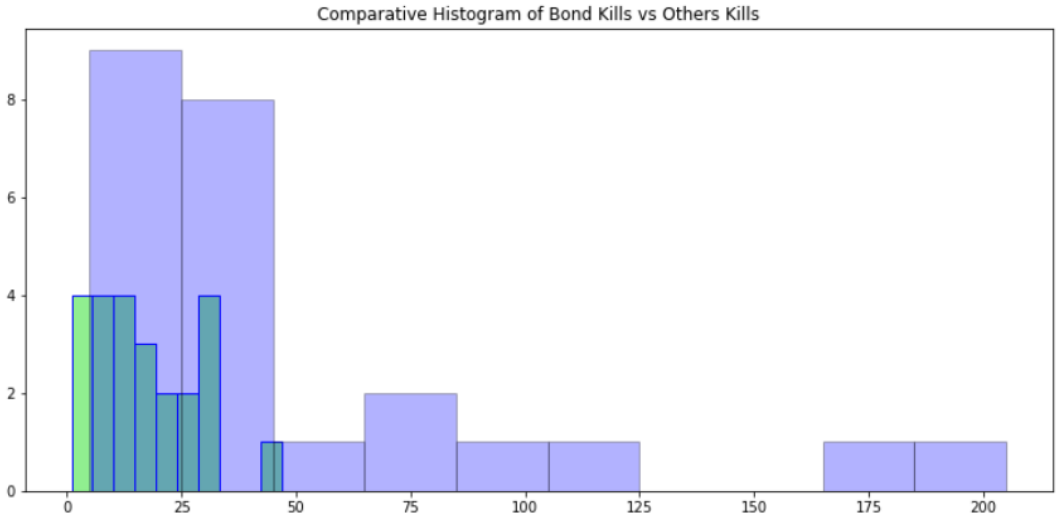

World_Gross vs Film Length
Film Length
150
140
130
120
110
0.2
0.4
0.6
0.8
1.0
World_Gross
1e9

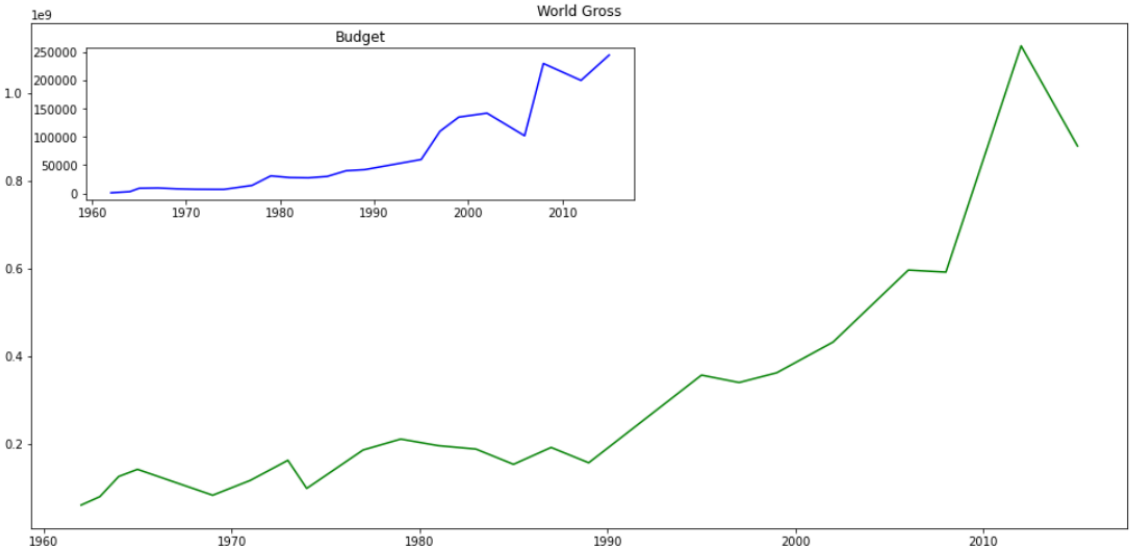

Budget vs Imdb Rating
IMDB Brating
7.75
7.50
7.25
7.00
6.75
6.50
6.25
6.00
0
50000
100000
150000
200000
250000
Budget


Budget through the Years
250000
200000
150000
100000
50000
0
1960
1970
1980
1990
2000
2010


Histogram of the Bond Actors
0
1
2
3
4
5
6
7
Sean Connery
George Lazenby
Roger Moore
Timothy Dalton
Pierce Brosnan
Daniel Craig


Histogram of the Imdb Ratings
0
1
2
3
4
5
6.00
6.25
6.50
6.75
7.00
7.25
7.50
7.75


Comparative Histogram of Bond Kills vs Others Kills
0
2
4
6
8
0
25
50
75
100
125
150
175
200



SUMMARY OF FINDINGS

Through my analysis of the Bond Movies and the many statistics and variables that came with each, much information can be deducted. Generally, as seen in the correlation table and the side by side line plot of the budget and the world gross amount, both had positive trends, indicating that as the budget was increased, the amount of money that the movie would bring in would also increase. Another interesting observation is the relationship between the world gross and the film length, something I didn't expect to have a relationship. As seen in the scatterplot, as either increased, the other increased as well. The correlation coefficient between the two is 0.49, which indicates a relatively positive relationship. The scatterplot of the IMDB rating compared to the budget also was interesting to me. I would have figured that as the budget increased, the general ratings would increase as well as the more financial backing you have for a movie, the better the product you would think. However, the scatterplot showed generally no relationship between the two. The histogram of the ratings was rather disappointing to me as it was rather normally distributed but was centered around 6.8 or so, which I believe is too low for such a astounding film series. The number of Bond cars was also fascinating as I hadn't realized how many there were, as I only really remember the famous Aston Martin and BMW. Overall, much insight was gathered from this data set and I'm glad I was able to understand this great film series to a deeper extent.