

Imdb Exploratory Data Analysis



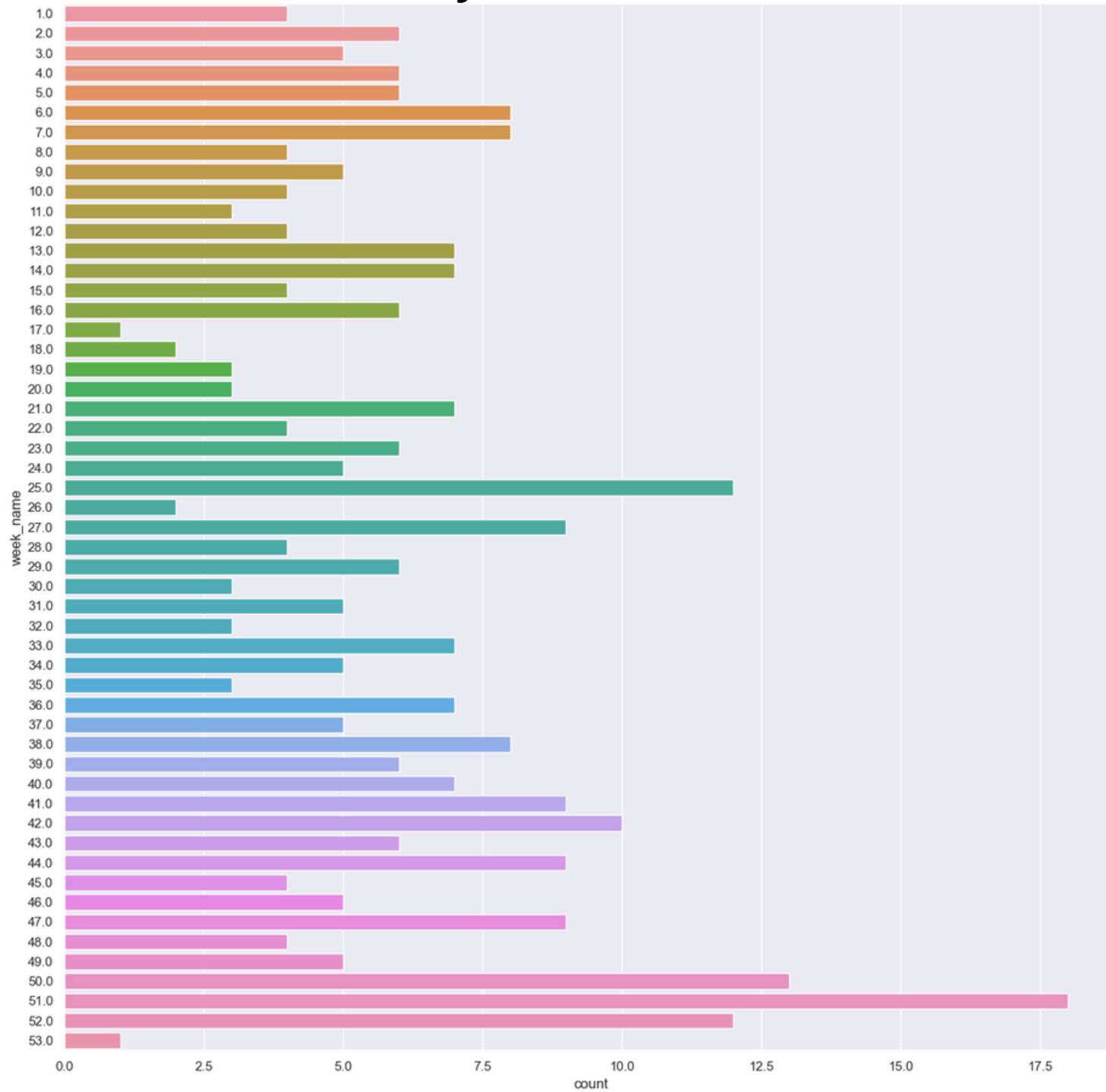
Objective variables:

- Imdb rating
- Gross income

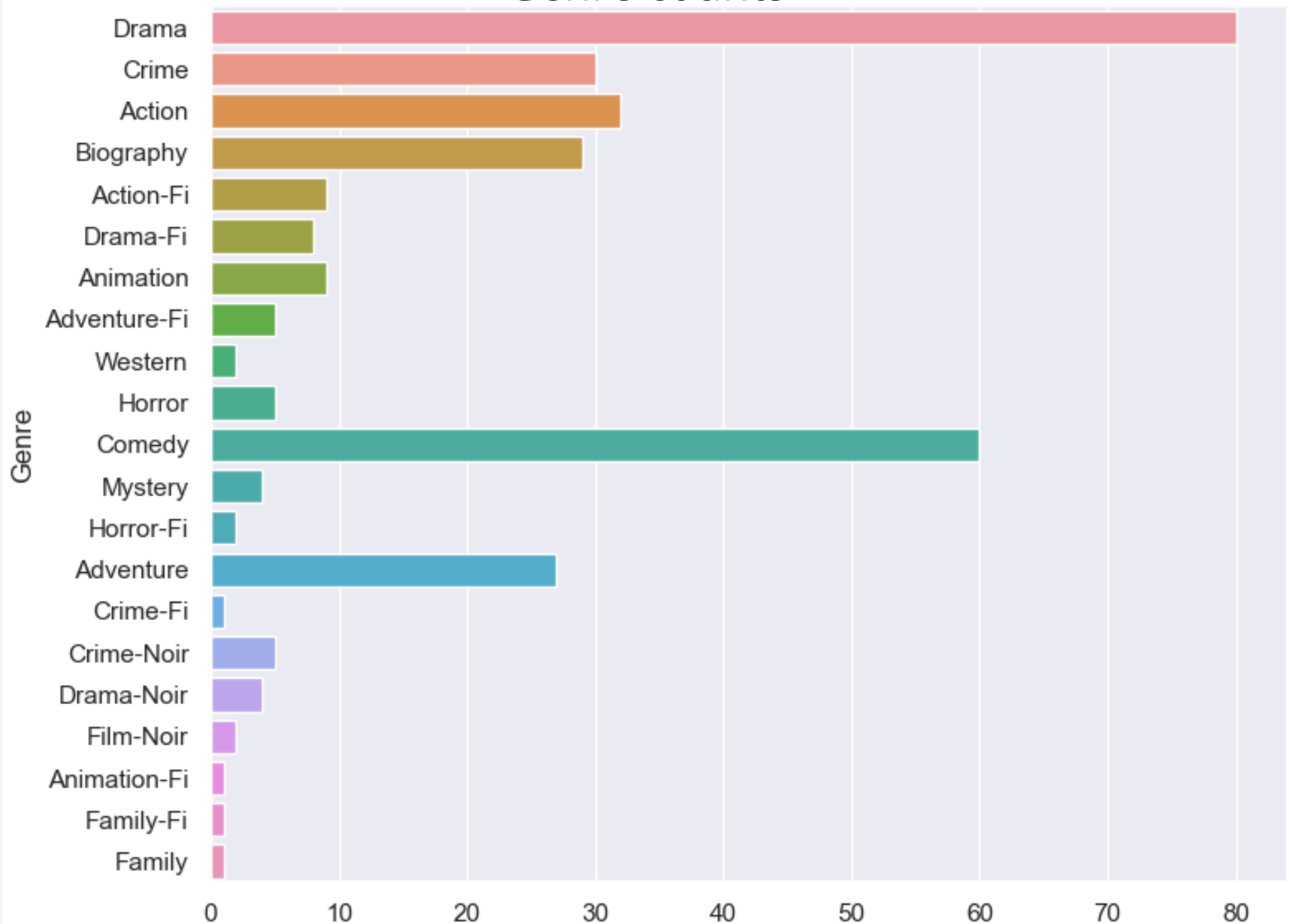
Features:

- Genre
- Certificate
- Country of origin
- Language
- Runtime
- Number of votes

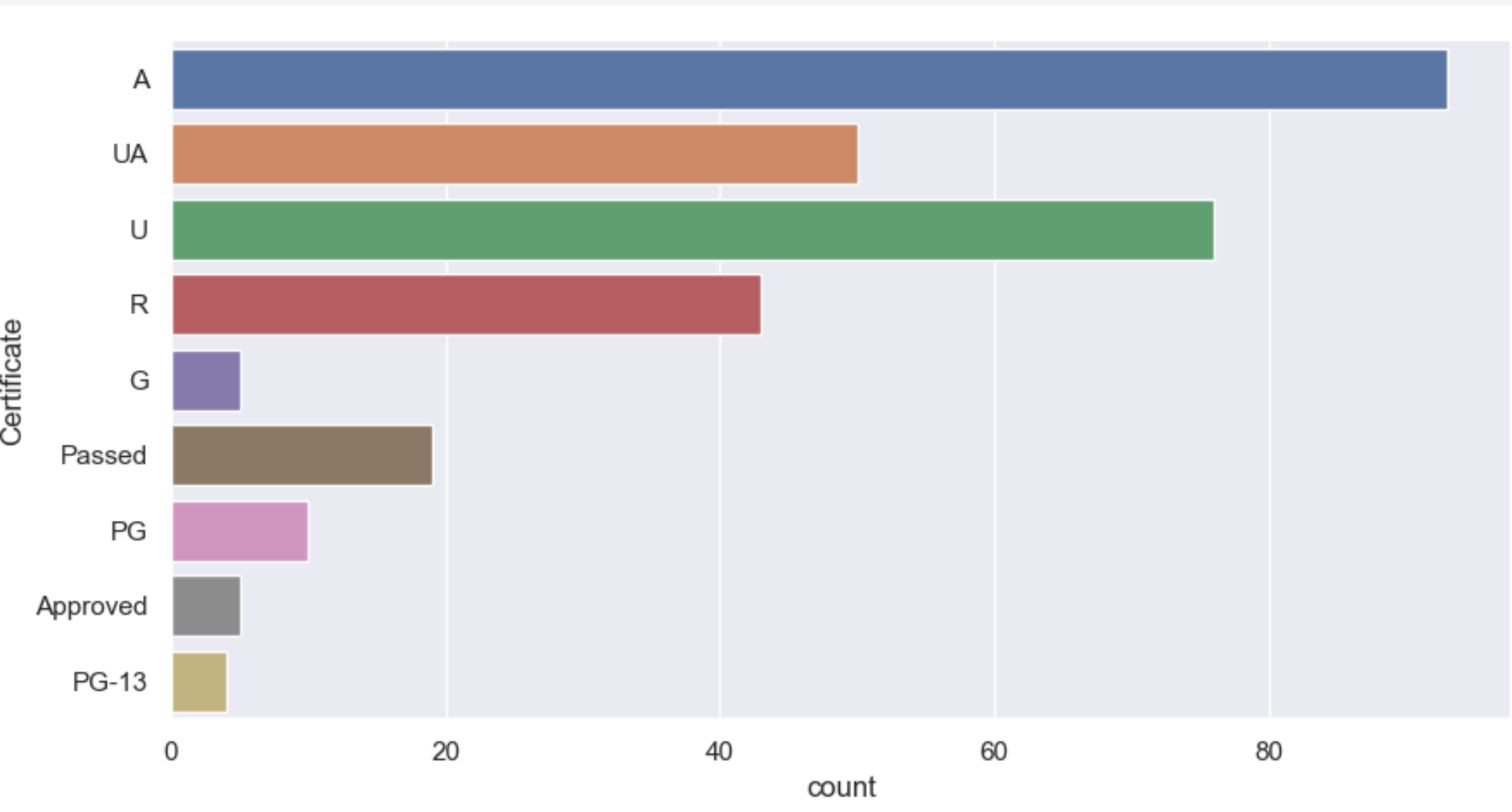
Weekly movie counts



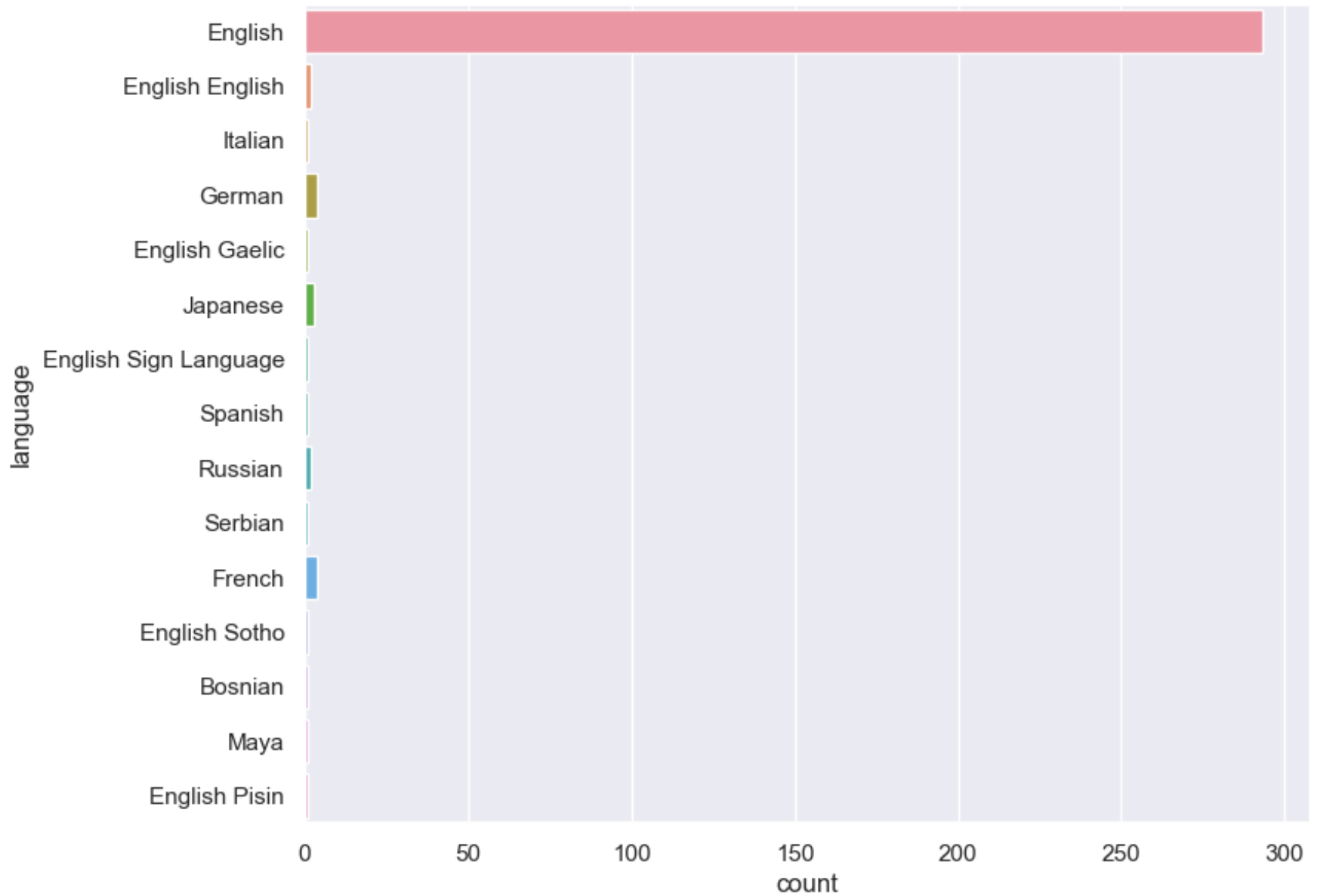
Genre counts



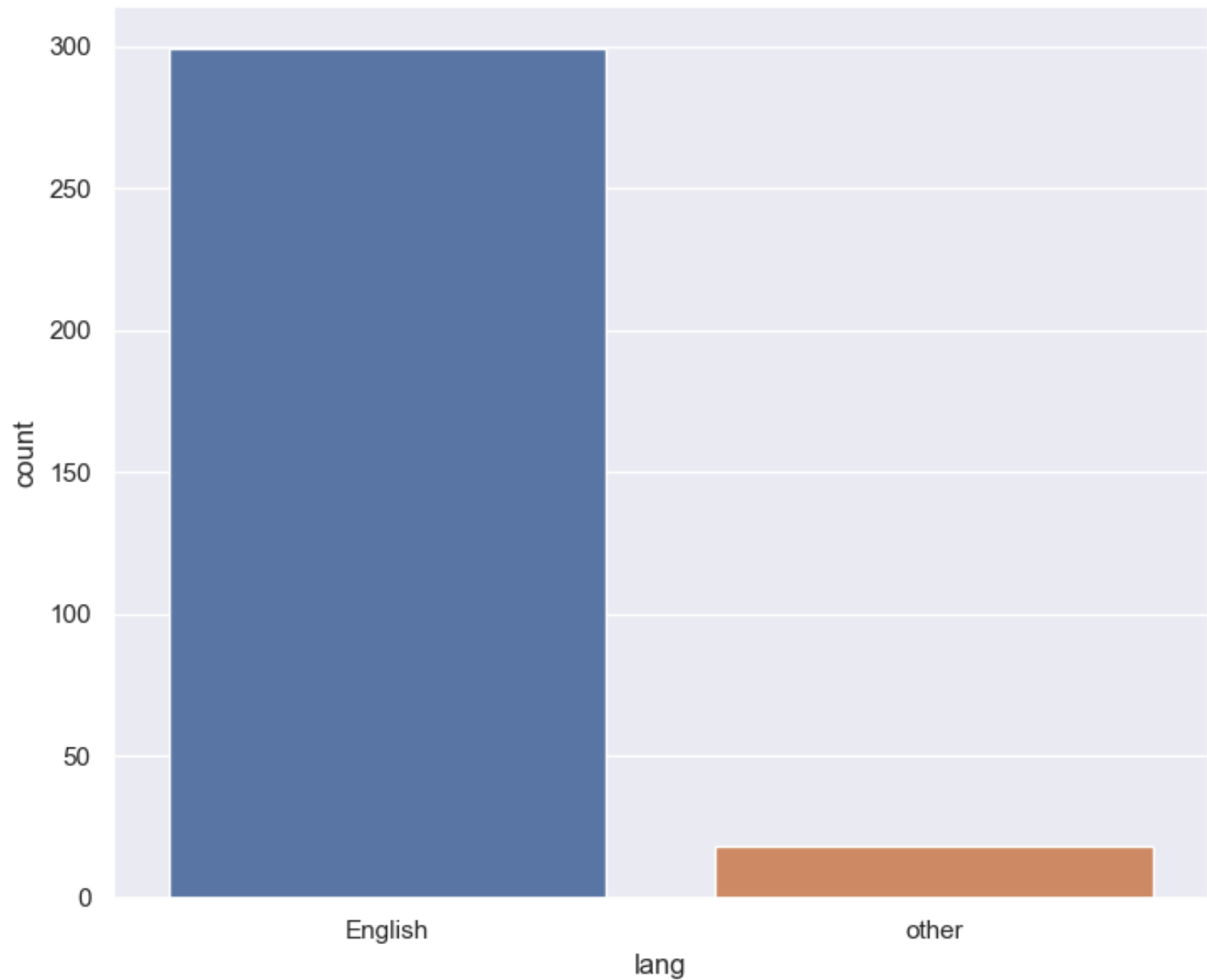
Certification counts



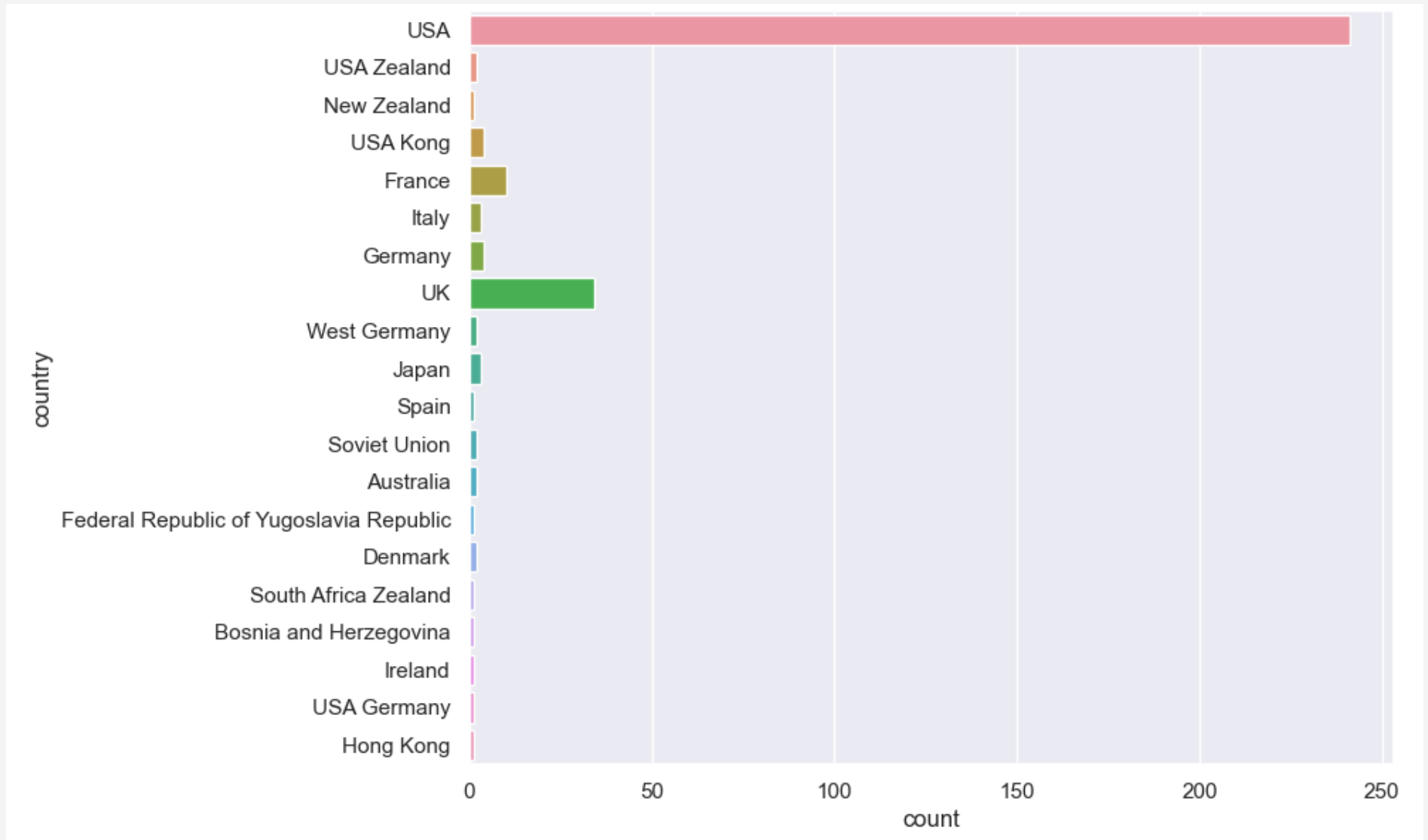
Language counts



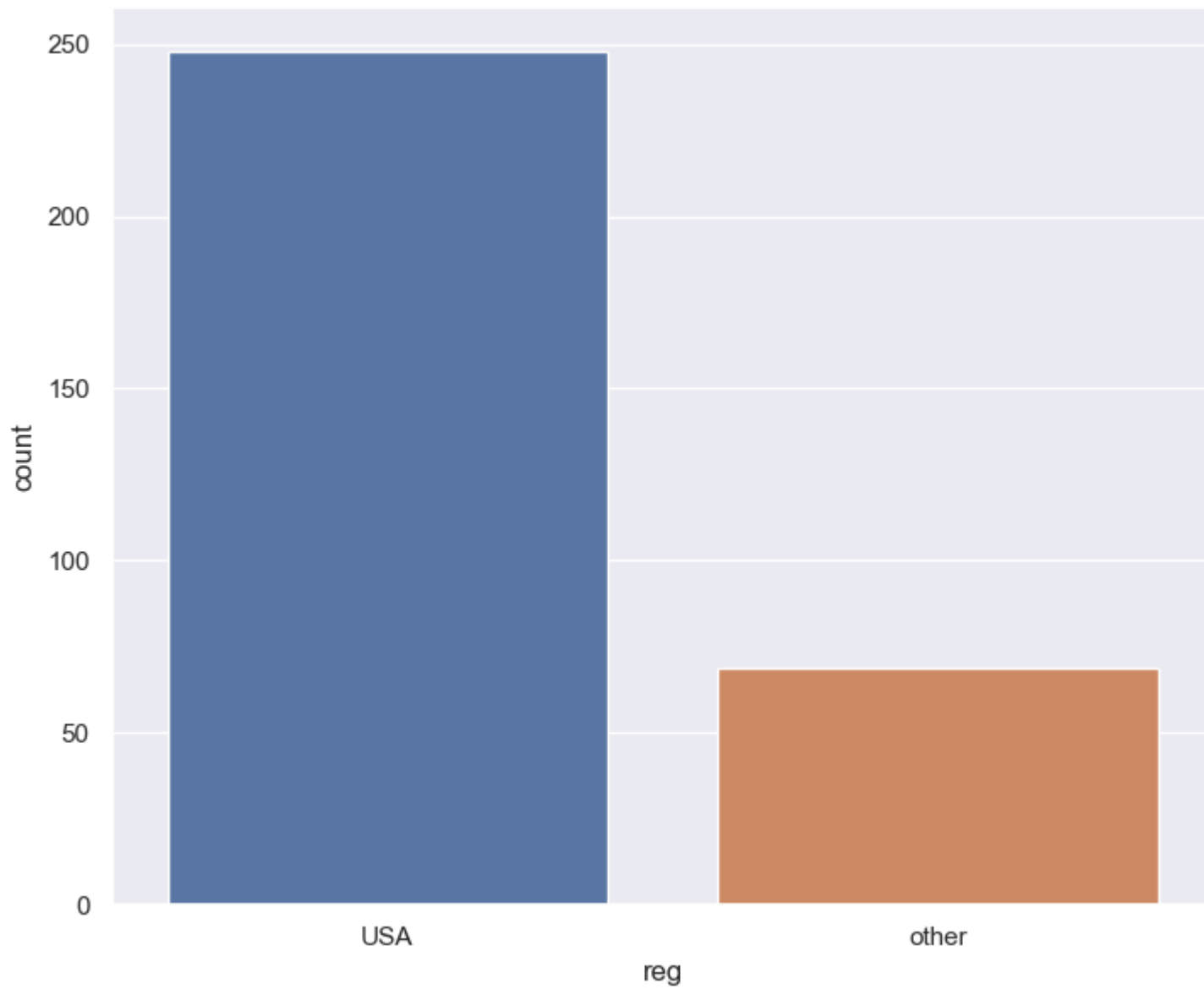
Language counts

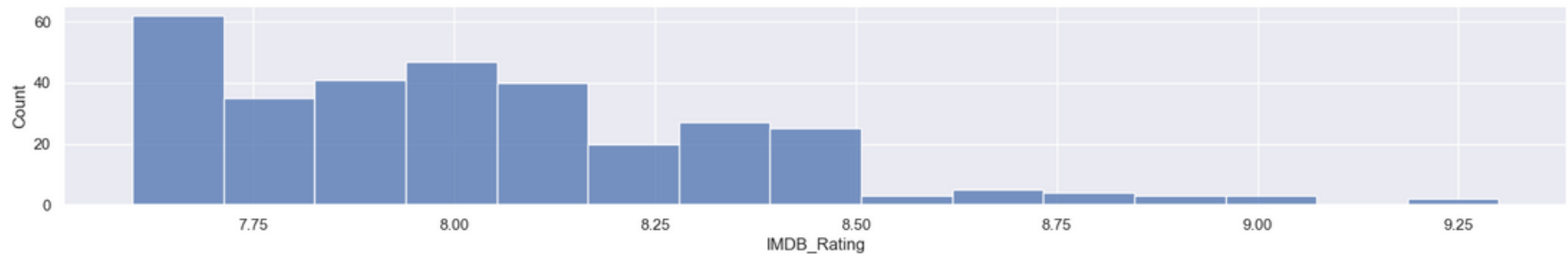
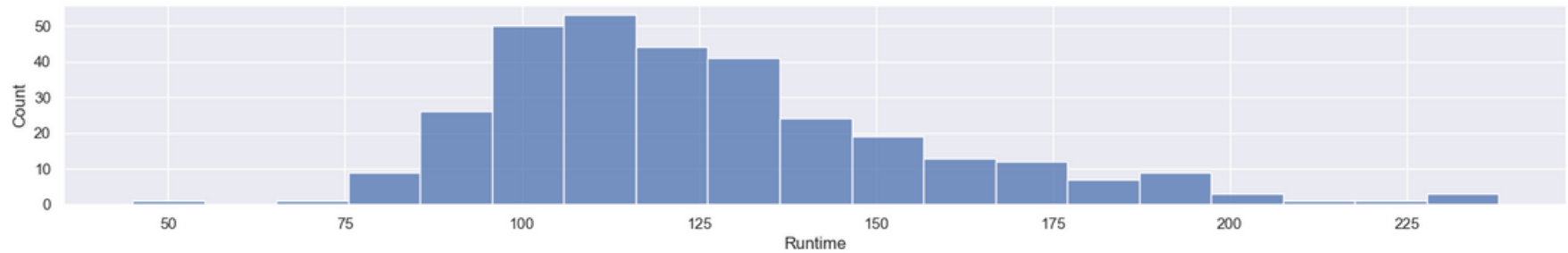


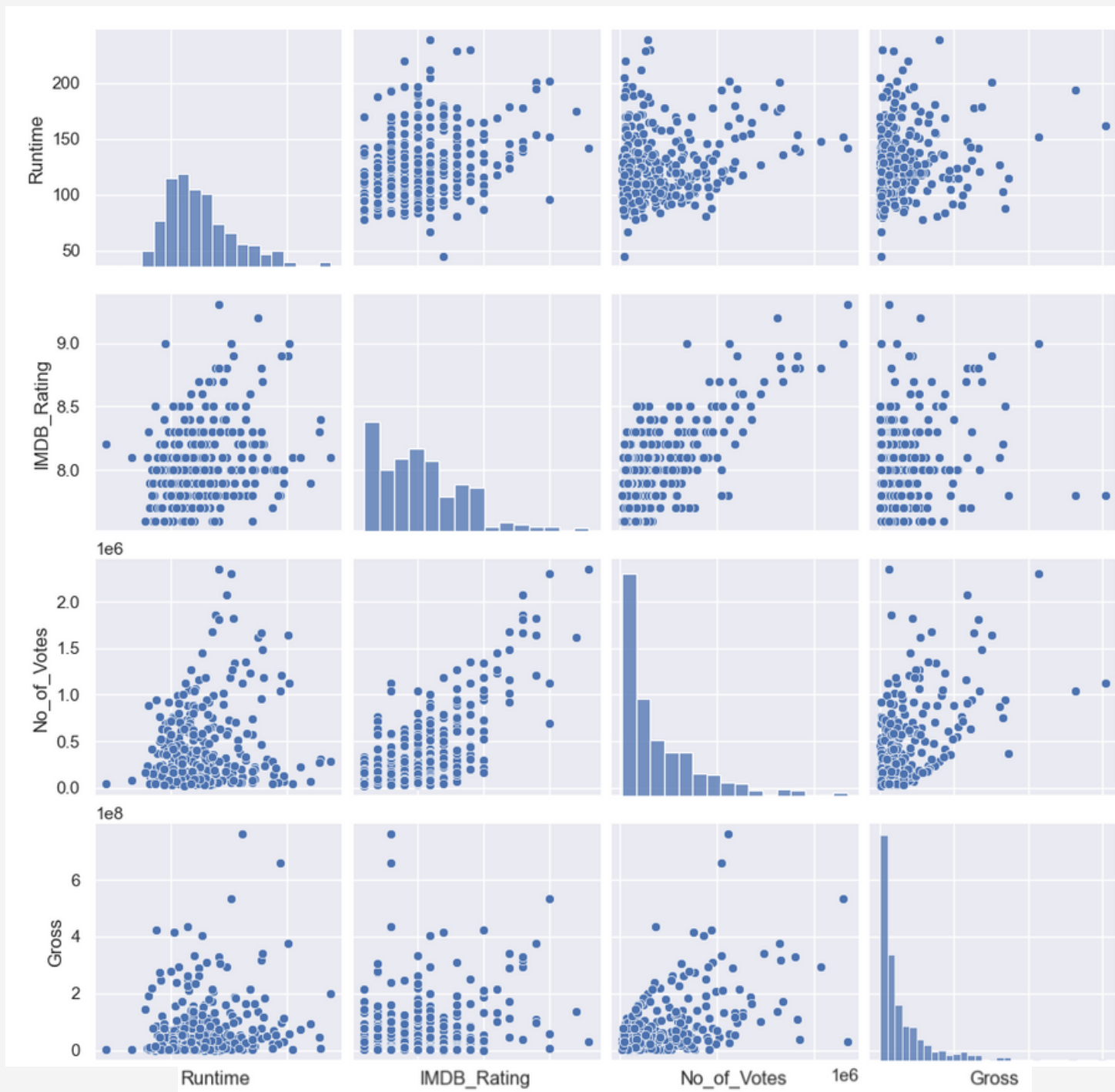
Country counts

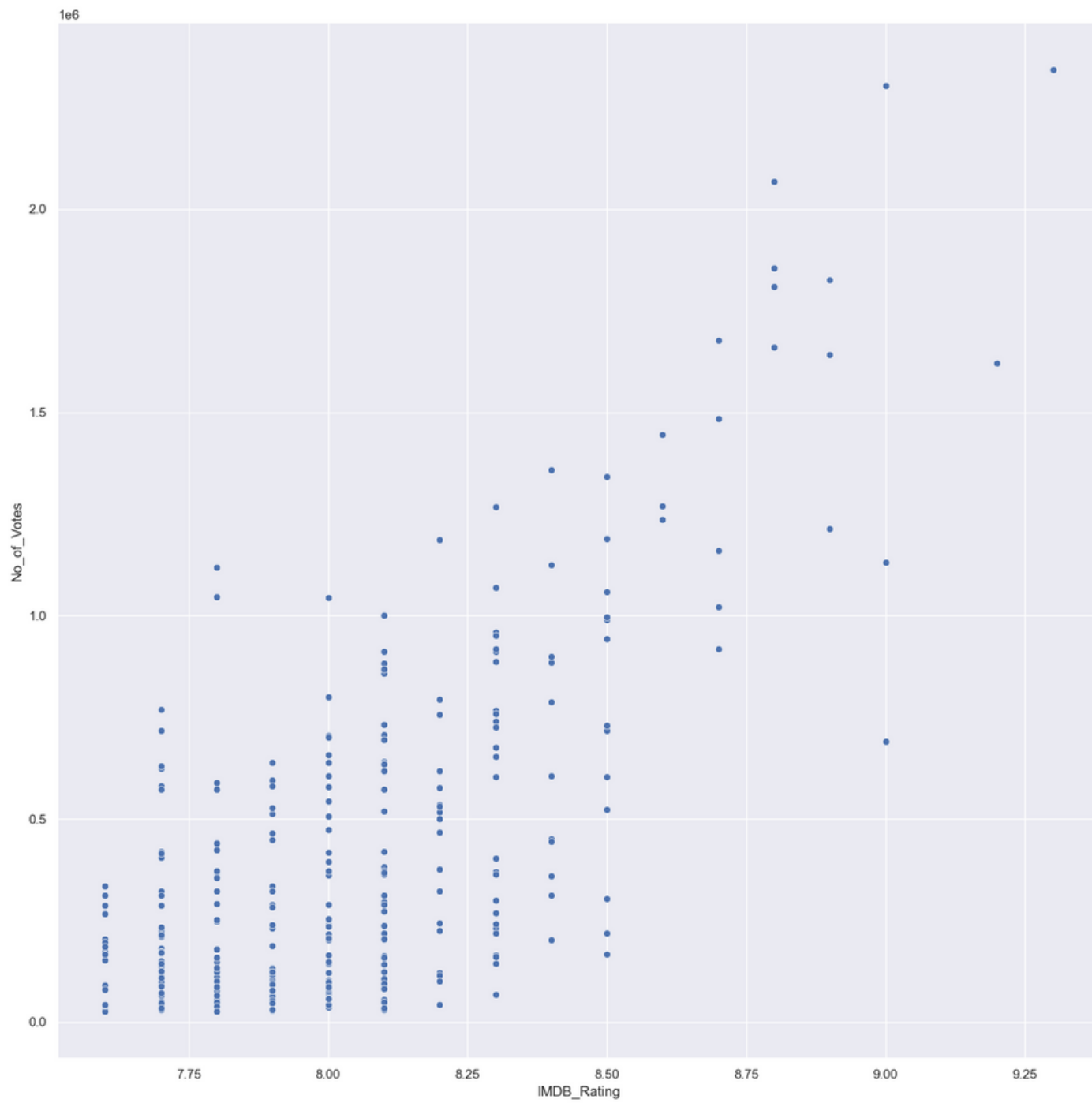


Country counts

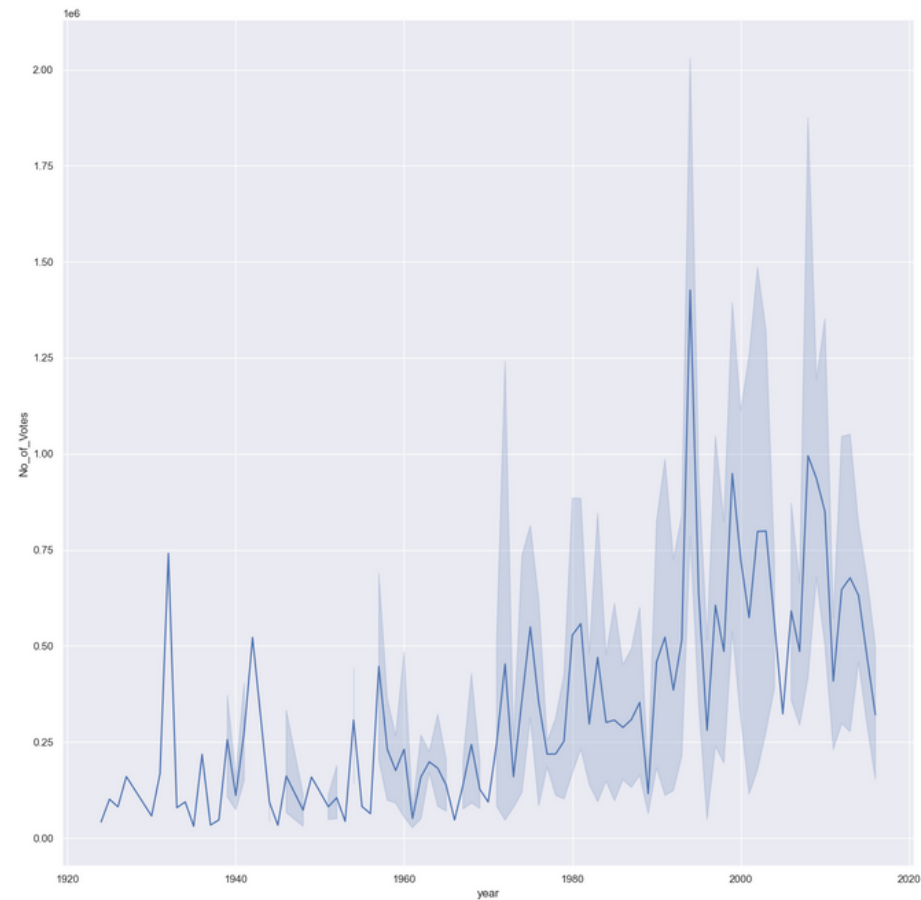




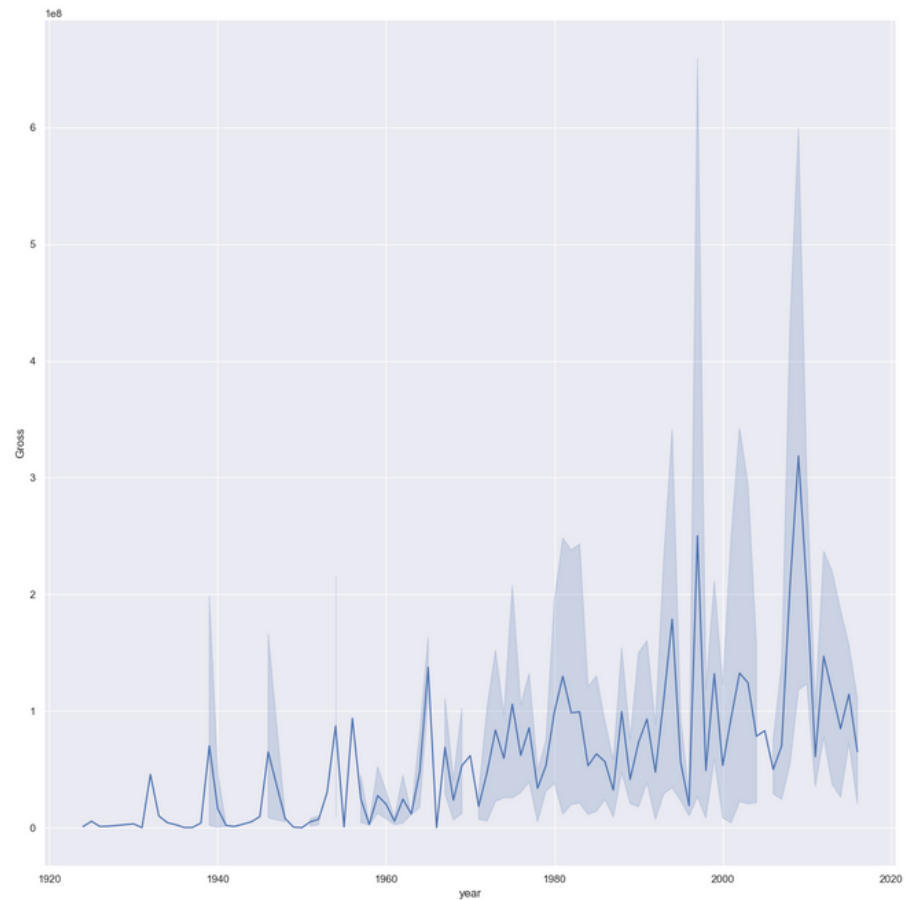




N° of votes by year



Gross revenue by year



MLR Imdb rating

OLS Regression Results

Dep. Variable:	IMDB_Rating	R-squared:	0.677
Model:	OLS	Adj. R-squared:	0.640
Method:	Least Squares	F-statistic:	17.86
Date:	Thu, 09 Feb 2023	Prob (F-statistic):	8.01e-50
Time:	13:11:59	Log-Likelihood:	87.762
No. Observations:	305	AIC:	-109.5
Df Residuals:	272	BIC:	13.25
Df Model:	32		
Covariance Type:	nonrobust	Rmse:	0.14

Independent variables:

- Certificate
- Genre
- Country of origin
- Language
- Number of votes
- Runtime

	coef	std err	t	P> t	[0.025	0.975]
Intercept	7.5591	0.066	113.848	0.000	7.428	7.690
Certificate[T.Approved]	0.2712	0.103	2.629	0.009	0.068	0.474
Certificate[T.G]	0.4147	0.096	4.333	0.000	0.226	0.603
Certificate[T.PG]	0.1140	0.069	1.664	0.097	-0.021	0.249
Certificate[T.PG-13]	0.0272	0.103	0.264	0.792	-0.176	0.230
Certificate[T.Passed]	0.2554	0.054	4.730	0.000	0.149	0.362
Certificate[T.R]	-0.0167	0.038	-0.439	0.661	-0.091	0.058
Certificate[T.U]	0.0833	0.034	2.434	0.016	0.016	0.151
Certificate[T.UA]	-0.1530	0.037	-4.161	0.000	-0.225	-0.081
Genre[T.Action-Fi]	-0.0040	0.074	-0.054	0.957	-0.150	0.142
Genre[T.Adventure]	0.0239	0.053	0.448	0.654	-0.081	0.129
Genre[T.Adventure-Fi]	0.0292	0.094	0.310	0.757	-0.156	0.214
Genre[T.Animation]	-0.1752	0.080	-2.185	0.030	-0.333	-0.017
Genre[T.Animation-Fi]	0.1785	0.204	0.875	0.382	-0.223	0.580
Genre[T.Biography]	0.0231	0.052	0.448	0.654	-0.078	0.125
Genre[T.Comedy]	0.0227	0.046	0.495	0.621	-0.068	0.113
Genre[T.Crime]	0.1233	0.051	2.414	0.016	0.023	0.224
Genre[T.Crime-Fi]	0.0998	0.198	0.504	0.615	-0.290	0.490
Genre[T.Crime-Noir]	0.1442	0.108	1.334	0.183	-0.069	0.357
Genre[T.Drama]	0.0629	0.042	1.514	0.131	-0.019	0.145
Genre[T.Drama-Fi]	-0.0491	0.082	-0.600	0.549	-0.210	0.112
Genre[T.Drama-Noir]	0.0545	0.109	0.501	0.616	-0.159	0.268
Genre[T.Family]	-0.0668	0.198	-0.338	0.735	-0.456	0.322
Genre[T.Family-Fi]	-0.2042	0.197	-1.036	0.301	-0.592	0.184
Genre[T.Film-Noir]	0.0370	0.222	0.167	0.868	-0.400	0.474
Genre[T.Horror]	0.1308	0.104	1.252	0.212	-0.075	0.336
Genre[T.Horror-Fi]	0.2030	0.142	1.433	0.153	-0.076	0.482
Genre[T.Mystery]	0.2583	0.103	2.497	0.013	0.055	0.462
Genre[T.Western]	0.1785	0.144	1.244	0.215	-0.104	0.461
reg[T.other]	0.0161	0.032	0.506	0.614	-0.047	0.079
lang[T.other]	0.1562	0.062	2.524	0.012	0.034	0.278
No of Votes	6.211e-07	3.14e-08	19.793	0.000	5.59e-07	6.83e-07
Runtime	0.0011	0.000	2.691	0.008	0.000	0.002

MLR Gross Revenue

Dep. Variable:	Gross	R-squared:	0.570
Model:	OLS	Adj. R-squared:	0.520
Method:	Least Squares	F-statistic:	11.29
Date:	Thu, 09 Feb 2023	Prob (F-statistic):	5.34e-34
Time:	13:11:59	Log-Likelihood:	-5935.1
No. Observations:	305	AIC:	1.194e+04
Df Residuals:	272	BIC:	1.206e+04
Df Model:	32		
Covariance Type:	nonrobust	Rmse:	68

Independent variables:

- Certificate
- Genre
- Country of origin
- Language
- Number of votes
- Runtime

	coef	std err	t	P> t	[0.025	0.975]
Intercept	-6.7955	25.018	-0.272	0.786	-56.048	42.457
Certificate[T.Approved]	-10.7304	38.876	-0.276	0.783	-87.267	65.806
Certificate[T.G]	-14.9569	36.060	-0.415	0.679	-85.949	56.035
Certificate[T.PG]	16.9377	25.822	0.656	0.512	-33.898	67.774
Certificate[T.PG-13]	50.6799	38.797	1.306	0.193	-25.702	127.061
Certificate[T.Passed]	-9.1282	20.350	-0.449	0.654	-49.192	30.936
Certificate[T.R]	5.7512	14.288	0.403	0.688	-22.378	33.880
Certificate[T.U]	35.1531	12.894	2.726	0.007	9.769	60.538
Certificate[T.UA]	75.9062	13.851	5.480	0.000	48.638	103.174
Genre[T.Action-Fi]	-56.2506	27.922	-2.015	0.045	-111.221	-1.280
Genre[T.Adventure]	-83.7043	20.054	-4.174	0.000	-123.185	-44.224
Genre[T.Adventure-Fi]	-63.5437	35.420	-1.794	0.074	-133.275	6.188
Genre[T.Animation]	109.9653	30.208	3.640	0.000	50.494	169.436
Genre[T.Animation-Fi]	-113.8960	76.871	-1.482	0.140	-265.233	37.441
Genre[T.Biography]	-70.6013	19.430	-3.634	0.000	-108.855	-32.348
Genre[T.Comedy]	-62.0522	17.265	-3.594	0.000	-96.042	-28.062
Genre[T.Crime]	-102.3178	19.245	-5.317	0.000	-140.205	-64.430
Genre[T.Crime-Fi]	-129.7244	74.644	-1.738	0.083	-276.677	17.228
Genre[T.Crime-Noir]	-75.7791	40.721	-1.861	0.064	-155.948	4.390
Genre[T.Drama]	-72.0123	15.647	-4.602	0.000	-102.818	-41.207
Genre[T.Drama-Fi]	-84.7379	30.817	-2.750	0.006	-145.408	-24.068
Genre[T.Drama-Noir]	-59.0836	40.934	-1.443	0.150	-139.672	21.504
Genre[T.Family]	-108.3489	74.451	-1.455	0.147	-254.922	38.224
Genre[T.Family-Fi]	293.4017	74.271	3.950	0.000	147.182	439.621
Genre[T.Film-Noir]	-43.4619	83.625	-0.520	0.604	-208.096	121.172
Genre[T.Horror]	-15.0435	39.359	-0.382	0.703	-92.531	62.444
Genre[T.Horror-Fi]	-70.9620	53.403	-1.329	0.185	-176.097	34.173
Genre[T.Mystery]	-138.5482	38.971	-3.555	0.000	-215.271	-61.826
Genre[T.Western]	-83.2308	54.099	-1.538	0.125	-189.737	23.275
reg[T.other]	-23.1882	12.015	-1.930	0.055	-46.843	0.466
lang[T.other]	-29.9291	23.308	-1.284	0.200	-75.815	15.957
No_of_Votes	0.0001	1.18e-05	8.491	0.000	7.71e-05	0.000
Runtime	0.6605	0.159	4.161	0.000	0.348	0.973