

# IMDB Movie Analysis



# Project Description

This project is about performing data analysis on the given data set. This project mainly requires Microsoft excel to group, filter and visualize the data.



**Project Link- [IMDB.xlsx](#)**

# Tech-Stack

Microsoft Excel 2019



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# Cleaning of Data

Use your knowledge learned till now and clean the data provided. (Dropping columns, removing null values, etc.)  
**Your task:** Clean the data



# Approach

Cleaning the data involves the following steps-

1. Delete the unwanted column.
2. Arrange the column & adjust their width.
3. Remove the rows with blank cells.
4. Remove the duplicate row using "Delete Duplicate Row Function".
5. Format them and add serial number.



# Raw data

IMDB\_Movies.csv - Excel

Yuvraj Sharma

File Home Insert Page Layout Formulas Data Review View Help Tell me what you want to do

Clipboard Font Alignment Number Styles Cells Editing

Calibri 11 A A<sup>+</sup> B I U Wrap Text Merge & Center

General % .00 .00

Conditional Formatting Format as Table Cell Styles Insert Delete Format Sort & Find & Filter Select

A1 color

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	color	director_n	num_crit	duration	director_f	actor_3_f	actor_2_n	actor_1_f	gross	genres	actor_1_n	movie_titl	num_vote	cast_total	actor_3_n	facenumb	plot_keyw	movie_im	num_user lar
2	Color	James Car	723	178	0	855	Joel David	1000	7.61E+08	Action Ad	CCH Poun	Avatar	886204	4834	Wes Studi	0	avatar fut	http://ww	3054 En
3	Color	Gore Verb	302	169	563	1000	Orlando B	40000	3.09E+08	Action Ad	Johnny De	Pirates of	471220	48350	Jack Davei	0	goddess r	http://ww	1238 En
4	Color	Sam Menc	602	148	0	161	Rory Kinn	11000	2E+08	Action Ad	Christoph	Spectre	275868	11700	Stephanie	1	bomb esq	http://ww	994 En
5	Color	Christophi	813	164	22000	23000	Christian E	27000	4.48E+08	Action Th	Tom Hard	The Dark I	1144337	106759	Joseph Go	0	deception	http://ww	2701 En
6		Doug Walker			131		Rob Walk	131		Document	Doug Wall	Star Wars	8	143		0	http://ww		
7	Color	Andrew St	462	132	475	530	Samantha	640	73058679	Action Ad	Daryl Sab	John Carte	212204	1873	Polly Walk	1	alien ame	http://ww	738 En
8	Color	Sam Raimi	392	156	0	4000	James Fra	24000	3.37E+08	Action Ad	J.K. Simm	Spider-Ma	383056	46055	Kirsten Du	0	sandman	http://ww	1902 En
9	Color	Nathan Gr	324	100	15	284	Donna Mu	799	2.01E+08	Adventure	Brad Garri	Tangled	294810	2036	M.C. Gain	1	17th cent	http://ww	387 En
10	Color	Joss Whec	635	141	0	19000	Robert Do	26000	4.59E+08	Action Ad	Chris Hem	Avengers:	462669	92000	Scarlett Jo	4	artificial	in http://ww	1117 En
11	Color	David Yate	375	153	282	10000	Daniel Rac	25000	3.02E+08	Adventure	Alan Rickn	Harry Pott	321795	58753	Rupert Gri	3	blood box	http://ww	973 En
12	Color	Zack Snyder	673	183	0	2000	Lauren Co	15000	3.3E+08	Action Ad	Henry Cav	Batman v	371639	24450	Alan D. Pu	0	based on	(http://ww	3018 En
13	Color	Bryan Sing	434	169	0	903	Marlon Br	18000	2E+08	Action Ad	Kevin Spa	Superman	240396	29991	Frank Lanj	0	crystal ep	http://ww	2367 En
14	Color	Marc Fors	403	106	395	393	Mathieu A	451	1.68E+08	Action Ad	Giancarlo	Quantum	330784	2023	Rory Kinn	1	action her	http://ww	1243 En
15	Color	Gore Verb	313	151	563	1000	Orlando B	40000	4.23E+08	Action Ad	Johnny De	Pirates of	522040	48486	Jack Davei	2	box office	http://ww	1832 En
16	Color	Gore Verb	450	150	563	1000	Ruth Wils	40000	89289910	Action Ad	Johnny De	The Lone I	181792	45757	Tom Wilki	1	horse out	http://ww	711 En
17	Color	Zack Snyder	733	143	0	748	Christophi	15000	2.91E+08	Action Ad	Henry Cav	Man of St	548573	20495	Harry Leni	0	based on	(http://ww	2536 En
18	Color	Andrew A	258	150	80	201	Pierfrance	22000	1.42E+08	Action Ad	Peter Dink	The Chron	149922	22697	Dami	4	brother br	http://ww	438 En
19	Color	Joss Whec	703	173	0	19000	Robert Do	26000	6.23E+08	Action Ad	Chris Hem	The Aveng	995415	87697	Scarlett Jo	3	alien invas	http://ww	1722 En
20	Color	Rob Marsl	448	136	252	1000	Sam Clafli	40000	2.41E+08	Action Ad	Johnny De	Pirates of	370704	54083	Stephen Jo	4	blackbear	http://ww	484 En
21	Color	Barry Soni	451	106	188	718	Michael St	10000	1.79E+08	Action Ad	Will Smith	Men in Bl	268154	12572	Nicole Sch	1	alien crim	http://ww	341 En
22	Color	Peter Jack	422	164	0	773	Adam Bro	5000	2.55E+08	Adventure	Aidan Turi	The Hobbi	354228	9152	James Nes	0	army elf	http://ww	802 En
23	Color	Marc Web	599	153	464	963	Andrew G	15000	2.62E+08	Action Ad	Emma Sto	The Amaz	451803	28489	Chris Zylke	0	lizard out	http://ww	1225 En
24	Color	Ridley Sc	243	156	0	738	William H	891	1.05E+08	Action Ad	Mark Add	Robin Hoc	211765	2244	Scott Grim	0	1190 larc	http://ww	546 En

IMDB Movies

Ready Accessibility: Unavailable

100%

# After Cleaning the data

IMDB.xlsx - Excel											
Table Tools											
Yuvraj Sharma											
File Home Insert Page Layout Formulas Data Review View Help Table Design Tell me what you want to do											
Clipboard Font Alignment Number Styles Cells Editing											
F4											
Action Adventure Thriller											
A	B	C	D	E	F	G	H	I	J	K	
1	S.No	movie_title	imdb_score	director_name	actor_1_name	genres	language	country	title_year	profit	gross
2	1	Avatar	7.9	James Cameron	CCH Pounder	Action Adventure Fantasy Sci-Fi	English	USA	2009	\$52,35,05,847	\$76,05,0
3	2	Pirates of the Caribbean: At World's End	7.1	Gore Verbinski	Johnny Depp	Action Adventure Fantasy	English	USA	2007	\$94,04,152	\$30,94,0
4	3	Spectre	6.8	Sam Mendes	Christoph Waltz	Action Adventure Thriller	English	UK	2015	-\$4,49,25,825	\$20,00,7
5	4	The Dark Knight Rises	8.5	Christopher Nolan	Tom Hardy	Action Thriller	English	USA	2012	\$19,81,30,642	\$44,81,3
6	5	John Carter	6.6	Andrew Stanton	Daryl Sabara	Action Adventure Sci-Fi	English	USA	2012	-\$19,06,41,321	\$7,30,5
7	6	Spider-Man 3	6.2	Sam Raimi	J.K. Simmons	Action Adventure Romance	English	USA	2007	\$7,85,30,303	\$33,65,3
8	7	Tangled	7.8	Nathan Greno	Brad Garrett	Adventure Animation Comedy Family	English	USA	2010	-\$5,91,92,738	\$20,08,0
9	8	Avengers: Age of Ultron	7.5	Joss Whedon	Chris Hemsworth	Action Adventure Sci-Fi	English	USA	2015	\$20,89,91,599	\$45,89,9
10	9	Harry Potter and the Half-Blood Prince	7.5	David Yates	Alan Rickman	Adventure Family Fantasy Mystery	English	UK	2009	\$5,19,56,980	\$30,19,5
11	10	Batman v Superman: Dawn of Justice	6.9	Zack Snyder	Henry Cavill	Action Adventure Sci-Fi	English	USA	2016	\$8,02,49,062	\$33,02,4
12	11	Superman Returns	6.1	Bryan Singer	Kevin Spacey	Action Adventure Sci-Fi	English	USA	2006	-\$89,30,592	\$20,00,6
13	12	Quantum of Solace	6.7	Marc Forster	Giancarlo Giannini	Action Adventure	English	UK	2008	-\$3,16,31,573	\$16,83,6
14	13	Pirates of the Caribbean: Dead Man's Chest	7.3	Gore Verbinski	Johnny Depp	Action Adventure Fantasy	English	USA	2006	\$19,80,32,628	\$42,30,3
15	14	The Lone Ranger	6.5	Gore Verbinski	Johnny Depp	Action Adventure Western	English	USA	2013	-\$12,57,10,090	\$8,92,8
16	15	Man of Steel	7.2	Zack Snyder	Henry Cavill	Action Adventure Fantasy Sci-Fi	English	USA	2013	\$6,60,21,565	\$29,10,2
17	16	The Chronicles of Narnia: Prince Caspian	6.6	Andrew Adamson	Peter Dinklage	Action Adventure Family Fantasy	English	USA	2008	-\$8,33,85,977	\$14,16,1
18	17	The Avengers	8.1	Joss Whedon	Chris Hemsworth	Action Adventure Sci-Fi	English	USA	2012	\$40,32,79,547	\$62,32,7
19	18	Pirates of the Caribbean: On Stranger Tides	6.7	Rob Marshall	Johnny Depp	Action Adventure Fantasy	English	USA	2011	-\$89,36,125	\$24,10,6
20	19	Men in Black 3	6.8	Barry Sonnenfeld	Will Smith	Action Adventure Comedy Family Fantasy	English	USA	2012	-\$4,59,79,146	\$17,90,2
21	20	The Hobbit: The Battle of the Five Armies	7.5	Peter Jackson	Aidan Turner	Adventure Fantasy	English	New Zea	2014	\$51,08,770	\$25,51,0
22	21	The Amazing Spider-Man	7	Marc Webb	Emma Stone	Action Adventure Fantasy	English	USA	2012	\$3,20,30,663	\$26,20,3
23	22	Robin Hood	6.7	Ridley Scott	Mark Addy	Action Adventure Drama History	English	USA	2010	-\$9,47,80,265	\$10,52,1
24	23	The Hobbit: The Desolation of Smaug	7.9	Peter Jackson	Aidan Turner	Adventure Fantasy	English	USA	2013	\$2,32,55,354	\$25,83,5
IMDB_Movies Profit Top250 Top Foreign top Director genres actors user growth											





# Movies With Highest Profit

Create a new column called profit which contains the difference of the two columns: gross and budget. Sort the column using the profit column as reference and observe the outliers using the appropriate chart type.

**Your task:** Find the movies with the highest profit?



# Approach

Steps finding Movies with highest profit-

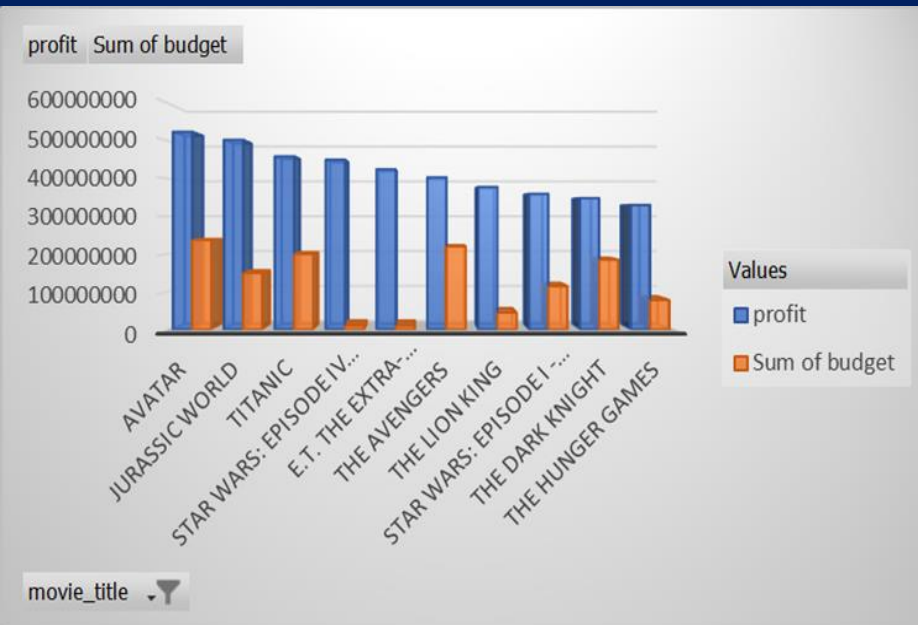
1. Create a new column 'profit', which is the difference between Gross and Budget column.
2. Make a pivot table using movie title, profit and budget.
3. Use value filter to get top 10 highest profit movies.
4. Plot graph.



# Result

Movies	profit	Sum of budget
Avatar	523505847	237000000
Jurassic World	502177271	150000000
Titanic	458672302	200000000
Star Wars: Episode IV - A New Hope	449935665	11000000
E.T. the Extra-Terrestrial	424449459	10500000
The Avengers	403279547	220000000
The Lion King	377783777	45000000
Star Wars: Episode I - The Phantom Menace	359544677	115000000
The Dark Knight	348316061	185000000
The Hunger Games	329999255	78000000

**Star Wars: Episode IV – A New Hope & E.T. the Extra Terrestrial** are the outliers because their profit is huge as compared to their budget.



# Top 250 IMDB Movies

Create a new column `IMDB_Top_250` and store the top 250 movies with the highest IMDb Rating (corresponding to the column: IMDB score. Also Extract all the movies in the `IMDB_Top_250` column which are not in the English language.



# Approach

Steps to find top 250 IMDB Movies-

1. Remove the column which are not required.
2. Sort the movies with num\_voted\_users and remove the movies having votes less than 25000.
3. Sort Movies according to IMDB score and remove all the movies having rank below 250.

Top IMDB Foreign Movies-

Table 1- Filter all movies which are not in English

Table 2 – Filter all movies which are not from USA.



# Result

Rank	movie_title	imdb_score	num_voted_users
1	The Shawshank Redemption	9.3	1689764
2	The Godfather	9.2	1155770
3	The Dark Knight	9	1676169
4	The Godfather: Part II	9	790926
5	Pulp Fiction	8.9	1324680
6	Schindler's List	8.9	865020
7	The Good, the Bad and the Ugly	8.9	503509
8	The Lord of the Rings: The Return of the King	8.9	1215718
9	Fight Club	8.8	1347461
10	Forrest Gump	8.8	1251222
11	Inception	8.8	1468200
12	Star Wars: Episode V - The Empire Strikes Back	8.8	837759
13	The Lord of the Rings: The Fellowship of the Ring	8.8	1238746
14	City of God	8.7	533200
15	Goodfellas	8.7	728685
16	One Flew Over the Cuckoo's Nest	8.7	680041
17	Seven Samurai	8.7	229012
18	Star Wars: Episode IV - A New Hope	8.7	911097
19	The Lord of the Rings: The Two Towers	8.7	1100446
20	The Matrix	8.7	1217752
21	American History X	8.6	782437
22	Interstellar	8.6	928227
23	Modern Times	8.6	143086
24	Saving Private Ryan	8.6	881236
25	Se7en	8.6	1023511
26	Spirited Away	8.6	417971
27	The Silence of the Lambs	8.6	887467
28	The Usual Suspects	8.6	740918
29	Alien	8.5	563827
30	Apocalypse Now	8.5	450676
31	Back to the Future	8.5	732212
32	Children of Heaven	8.5	27882
33	Django Unchained	8.5	955174
34	Gladiator	8.5	982637
35	Memento	8.5	845580
36	Psycho	8.5	422432
37	Raiders of the Lost Ark	8.5	661017
38	Terminator 2: Judgment Day	8.5	744891
39	The Dark Knight Rises	8.5	1144337
40	The Departed	8.5	873649
41	The Green Mile	8.5	782610
42	The Lion King	8.5	644348
43	The Lives of Others	8.5	259379
44	The Pianist	8.5	497946
45	The Prestige	8.5	844052
46	Whiplash	8.5	399138
47	A Separation	8.4	151812
48	Aliens	8.4	488537
49	Amelie	8.4	534262
50	American Beauty	8.4	822500

51	Baahubali: The Beginning	8.4	62756	101	The Bridge on the River Kwai	8.2	149444	
52	Braveheart	8.4	736638	102	The Secret in Their Eyes	8.2	131831	
53	Das Boot	8.4	168203	103	The Thing	8.2	258078	
54	Lawrence of Arabia	8.4	192775	104	The Wolf of Wall Street	8.2	780588	
55	Oldboy	8.4	356181	105	Trainspotting	8.2	469561	
56	Once Upon a Time in America	8.4	221000	106	V for Vendetta	8.2	791783	
57	Princess Mononoke	8.4	221552	107	Warrior	8.2	332276	
58	Requiem for a Dream	8.4	573541	108	12 Years a Slave	8.1	439176	
59	Reservoir Dogs	8.4	664719	109	Akira	8.1	106160	
60	Star Wars: Episode VI - Return of the Jedi	8.4	681857	110	Amores Perros	8.1	173551	
61	WALL-E	8.4	718837	111	Annie Hall	8.1	192940	
62	2001: A Space Odyssey	8.3	427357	112	Before Sunrise	8.1	183288	
63	Amadeus	8.3	270790	113	Butch Cassidy and the Sundance Kid	8.1	152089	
64	Batman Begins	8.3	980946	114	Deadpool	8.1	479047	
65	Downfall	8.3	248354	115	Donnie Darko	8.1	580999	
66	Eternal Sunshine of the Spotless Mind	8.3	666937	116	Elite Squad	8.1	81644	
67	Good Will Hunting	8.3	604904	117	Gone Girl	8.1	569841	
68	Indiana Jones and the Last Crusade	8.3	515306	118	Groundhog Day	8.1	437418	
69	Inglourious Basterds	8.3	885175	119	Guardians of the Galaxy	8.1	682155	
70	Inside Out	8.3	345198	120	Hotel Rwanda	8.1	264533	
71	L.A. Confidential	8.3	414219	121	Jurassic Park	8.1	613473	
72	Metropolis	8.3	111841	122	Kill Bill: Vol. 1	8.1	735784	
73	Monty Python and the Holy Grail	8.3	382240	123	Mad Max: Fury Road	8.1	552503	
74	Raging Bull	8.3	235133	124	Million Dollar Baby	8.1	482064	
75	Room	8.3	161288	125	Monsters, Inc.	8.1	585659	
76	Scarface	8.3	537442	126	No Country for Old Men	8.1	612060	
77	Snatch	8.3	600996	Pirates of the Caribbean: The Curse of the Black Pearl			8.1	809474
78	Some Like It Hot	8.3	175196	127	Black Pearl	8.1	809474	
79	The Hunt	8.3	170155	128	Platoon	8.1	291603	
80	The Sting	8.3	175607	129	Prisoners	8.1	383591	
81	Toy Story 3	8.3	544884	130	Rocky	8.1	375240	
82	Toy Story	8.3	623757	131	Rush	8.1	312629	
83	Unforgiven	8.3	277505	132	Shutter Island	8.1	786092	
84	Up	8.3	665575	133	Sin City	8.1	656640	
85	A Beautiful Mind	8.2	610568	134	Spotlight	8.1	195333	
86	Blade Runner	8.2	461609	135	Stand by Me	8.1	271794	
87	Captain America: Civil War	8.2	272670	136	Tae Guk Gi: The Brotherhood of War	8.1	31943	
88	Casino	8.2	333542	137	The Avengers	8.1	995415	
89	Die Hard	8.2	592582	138	The Best Years of Our Lives	8.1	40359	
90	Finding Nemo	8.2	692482	139	The Bourne Ultimatum	8.1	491077	
91	Gone with the Wind	8.2	215340	140	The Celebration	8.1	65951	
92	Gran Torino	8.2	561773	141	The Grand Budapest Hotel	8.1	475518	
93	How to Train Your Dragon	8.2	485430	142	The Help	8.1	318955	
94	Howl's Moving Castle	8.2	214091	143	The Imitation Game	8.1	467613	
95	Incendies	8.2	80429	144	The Martian	8.1	472488	
96	Into the Wild	8.2	426359	145	The Princess Bride	8.1	294163	
97	Lock, Stock and Two Smoking Barrels	8.2	414976	146	The Revenant	8.1	406020	
98	On the Waterfront	8.2	100890	147	The Sea Inside	8.1	64556	
99	Pan's Labyrinth	8.2	467234	148	The Sixth Sense	8.1	704766	
100	The Big Lebowski	8.2	537419	149	The Terminator	8.1	600266	
				150	The Truman Show	8.1	667983	

151	The Wizard of Oz	8.1	291875
152	There Will Be Blood	8.1	372990
153	A Fistful of Dollars	8	147566
154	Aladdin	8	260939
155	Before Sunset	8	168398
156	Big Fish	8	350698
157	Black Swan	8	551363
158	Blood Diamond	8	400292
159	Bowling for Columbine	8	123090
160	Boyhood	8	266020
161	Brazil	8	152306
162	Casino Royale	8	470483
163	Catch Me If You Can	8	525801
164	Central Station	8	28951
165	Cinderella Man	8	148238
166	Dallas Buyers Club	8	326494
167	Dancer in the Dark	8	79330
168	Dances with Wolves	8	186485
169	Dead Poets Society	8	277451
170	District 9	8	531737
171	Doctor Zhivago	8	55816
172	Fiddler on the Roof	8	29839
173	Her	8	355126
174	In Bruges	8	307639
175	Jaws	8	412454
176	JFK	8	113472
177	Kill Bill: Vol. 2	8	512749
178	Life of Pi	8	440084
179	Magnolia	8	241030
180	Mulholland Drive	8	235992
181	My Name Is Khan	8	69759
182	Mystic River	8	338415
183	Persepolis	8	70194
184	Rain Man	8	383784
185	Ratatouille	8	473887
186	Serenity	8	242599
187	Shaun of the Dead	8	395921
188	Sicko	8	66610
189	Sling Blade	8	72443
190	Slumdog Millionaire	8	641997
191	Star Trek	8	504419
192	The Artist	8	190030
193	The Exorcist	8	284252
194	The Incredibles	8	479166
195	The Iron Giant	8	128455
196	The King's Speech	8	503631
197	The Perks of Being a Wallflower	8	351274
198	The Pursuit of Happyness	8	338383
199	The Sound of Music	8	148172
200	The Straight Story	8	63733

201	True Romance	8	163492
202	Waltz with Bashir	8	46107
203	X-Men: Days of Future Past	8	514125
204	Young Frankenstein	8	112671
205	4 Months, 3 Weeks and 2 Days	7.9	44763
206	Almost Famous	7.9	207287
207	Amour	7.9	70382
208	Avatar	7.9	886204
209	Before Midnight	7.9	95362
210	Big Hero 6	7.9	279093
211	Boogie Nights	7.9	189032
212	Captain Phillips	7.9	323353
213	Children of Men	7.9	361767
214	Crash	7.9	361169
215	Crouching Tiger, Hidden Dragon	7.9	217740
216	Do the Right Thing	7.9	59524
217	E.T. the Extra-Terrestrial	7.9	281842
218	Ed Wood	7.9	142416
219	Edge of Tomorrow	7.9	431620
220	Edward Scissorhands	7.9	357581
221	Glory	7.9	101888
222	Halloween	7.9	157857
223	Hero	7.9	149414
224	Hot Fuzz	7.9	352695
225	How to Train Your Dragon 2	7.9	221128
226	Iron Man	7.9	696338
227	Letters from Iwo Jima	7.9	132149
228	Little Miss Sunshine	7.9	355810
229	Moon	7.9	260607
230	My Fair Lady	7.9	66959
231	Nightcrawler	7.9	293304
232	Nine Queens	7.9	38215
233	Once	7.9	90827
234	Shrek	7.9	467113
235	Straight Outta Compton	7.9	119928
236	Taken	7.9	483756
237	The Blues Brothers	7.9	142448
238	The Bourne Identity	7.9	407601
239	The Chorus	7.9	44151
240	The Fighter	7.9	275869
241	The Hateful Eight	7.9	272839
242	The Hobbit: An Unexpected Journey	7.9	637246
243	The Hobbit: The Desolation of Smaug	7.9	483540
244	The Insider	7.9	133526
245	The Notebook	7.9	396396
246	The Remains of the Day	7.9	45703
247	The Right Stuff	7.9	45271
248	The Untouchables	7.9	219008
249	The World's Fastest Indian	7.9	44198
250	The Wrestler	7.9	251349

## Top IMDB movies which are not in English language

Rank	movie_title	imdb_score	language	country
1	The Good, the Bad and the Ugly	8.9	Italian	Italy
2	City of God	8.7	Portuguese	Brazil
3	Seven Samurai	8.7	Japanese	Japan
4	Spirited Away	8.6	Japanese	Japan
5	Children of Heaven	8.5	Persian	Iran
6	The Lives of Others	8.5	German	Germany
7	A Separation	8.4	Persian	Iran
8	Amelie	8.4	French	France
9	Baahubali: The Beginning	8.4	Telugu	India
10	Das Boot	8.4	German	West Germany
11	Oldboy	8.4	Korean	South Korea
12	Princess Mononoke	8.4	Japanese	Japan
13	Downfall	8.3	German	Germany
14	Metropolis	8.3	German	Germany
15	The Hunt	8.3	Danish	Denmark
16	Howl's Moving Castle	8.2	Japanese	Japan
17	Incendies	8.2	French	Canada
18	Pan's Labyrinth	8.2	Spanish	Spain
19	The Secret in Their Eyes	8.2	Spanish	Argentina
20	Akira	8.1	Japanese	Japan
21	Amores Perros	8.1	Spanish	Mexico
22	Elite Squad	8.1	Portuguese	Brazil
23	Tae Guk Gi: The Brotherhood of War	8.1	Korean	South Korea
24	The Celebration	8.1	Danish	Denmark
25	The Sea Inside	8.1	Spanish	Spain
26	A Fistful of Dollars	8	Italian	Italy
27	Central Station	8	Portuguese	Brazil
28	My Name Is Khan	8	Hindi	India
29	Persepolis	8	French	France
30	Waltz with Bashir	8	Hebrew	Israel
31	4 Months, 3 Weeks and 2 Days	7.9	Romanian	Romania
32	Amour	7.9	French	France
33	Crouching Tiger, Hidden Dragon	7.9	Mandarin	Taiwan
34	Hero	7.9	Mandarin	China
35	Letters from Iwo Jima	7.9	Japanese	USA
36	Nine Queens	7.9	Spanish	Argentina
37	The Chorus	7.9	French	France

## Top foreign IMDB movies which are not from USA

Rank	movie_title	imdb_score	language	country
1	The Good, the Bad and the Ugly	8.9	Italian	Italy
2	The Lord of the Rings: The Fellowship of the Ring	8.8	English	New Zealand
3	City of God	8.7	Portuguese	Brazil
4	Seven Samurai	8.7	Japanese	Japan
5	Spirited Away	8.6	Japanese	Japan
6	Alien	8.5	English	UK
7	Children of Heaven	8.5	Persian	Iran
8	The Lives of Others	8.5	German	Germany
9	The Pianist	8.5	English	France
10	A Separation	8.4	Persian	Iran
11	Amelie	8.4	French	France
12	Baahubali: The Beginning	8.4	Telugu	India
13	Das Boot	8.4	German	West Germany
14	Lawrence of Arabia	8.4	English	UK
15	Oldboy	8.4	Korean	South Korea
16	Once Upon a Time in America	8.4	English	Italy
17	Princess Mononoke	8.4	Japanese	Japan
18	2001: A Space Odyssey	8.3	English	UK
19	Downfall	8.3	German	Germany
20	Metropolis	8.3	German	Germany
21	Monty Python and the Holy Grail	8.3	English	UK
22	Room	8.3	English	Ireland
23	Snatch	8.3	English	UK
24	The Hunt	8.3	Danish	Denmark
25	Howl's Moving Castle	8.2	Japanese	Japan
26	Incendies	8.2	French	Canada
27	Lock, Stock and Two Smoking Barrels	8.2	English	UK
28	Pan's Labyrinth	8.2	Spanish	Spain
29	The Bridge on the River Kwai	8.2	English	UK
30	The Secret in Their Eyes	8.2	Spanish	Argentina
31	Trainspotting	8.2	English	UK
32	Akira	8.1	Japanese	Japan
33	Amores Perros	8.1	Spanish	Mexico
34	Elite Squad	8.1	Portuguese	Brazil
35	Hotel Rwanda	8.1	English	UK
36	Mad Max: Fury Road	8.1	English	Australia
37	Platoon	8.1	English	UK

38	Rush	8.1	English	UK
39	Tae Guk Gi: The Brotherhood of War	8.1	Korean	South Korea
40	The Celebration	8.1	Danish	Denmark
41	The Imitation Game	8.1	English	UK
42	The Sea Inside	8.1	Spanish	Spain
43	The Terminator	8.1	English	UK
44	A Fistful of Dollars	8	Italian	Italy
45	Blood Diamond	8	English	Germany
46	Bowling for Columbine	8	English	Germany
47	Brazil	8	English	UK
48	Casino Royale	8	English	UK
49	Central Station	8	Portuguese	Brazil
50	Dancer in the Dark	8	English	Denmark
51	District 9	8	English	South Africa
52	In Bruges	8	English	UK
53	JFK	8	English	France
54	Mulholland Drive	8	English	France
55	My Name Is Khan	8	Hindi	India
56	Persepolis	8	French	France
57	Shaun of the Dead	8	English	UK
58	Slumdog Millionaire	8	English	UK
59	The Artist	8	English	France
60	The King's Speech	8	English	UK
61	The Straight Story	8	English	France
62	Waltz with Bashir	8	Hebrew	Israel
63	4 Months, 3 Weeks and 2 Days	7.9	Romanian	Romania
64	Amour	7.9	French	France
65	Crash	7.9	English	Germany
66	Crouching Tiger, Hidden Dragon	7.9	Mandarin	Taiwan
67	Hero	7.9	Mandarin	China
68	Hot Fuzz	7.9	English	UK
69	Moon	7.9	English	UK
70	Nine Queens	7.9	Spanish	Argentina
71	Once	7.9	English	Ireland
72	Taken	7.9	English	France
73	The Chorus	7.9	French	France
74	The Remains of the Day	7.9	English	UK
75	The World's Fastest Indian	7.9	English	New Zealand



# Top Directors

Find out the top 10 directors for whom the mean of `imdb_score` is the highest and store them in a new column `top10director`. In case of a tie in IMDb score between two directors, sort them alphabetically.

**Your task:** Find the best directors



# Approach

Steps to get Top Directors-

1. Use pivot table to get directors and their mean IMDB score.
2. Sort them with their mean IMDB score.
3. Use filter value to get top 10 IMDB directors.
4. Manually sort them alphabetically.



# Result

top 10 Directors	Average of imdb_score
Charles Chaplin	8.6
Tony Kaye	8.6
Alfred Hitchcock	8.5
Damien Chazelle	8.5
Majid Majidi	8.5
Ron Fricke	8.5
Sergio Leone	8.433333333
Christopher Nolan	8.425
Asghar Farhadi	8.4
Marius A. Markevicius	8.4
Richard Marquand	8.4
S.S. Rajamouli	8.4



# Top Genres

**Popular Genres:** Perform this step using the knowledge gained while performing previous steps.  
**Your task:** Find popular genres.



# Approach

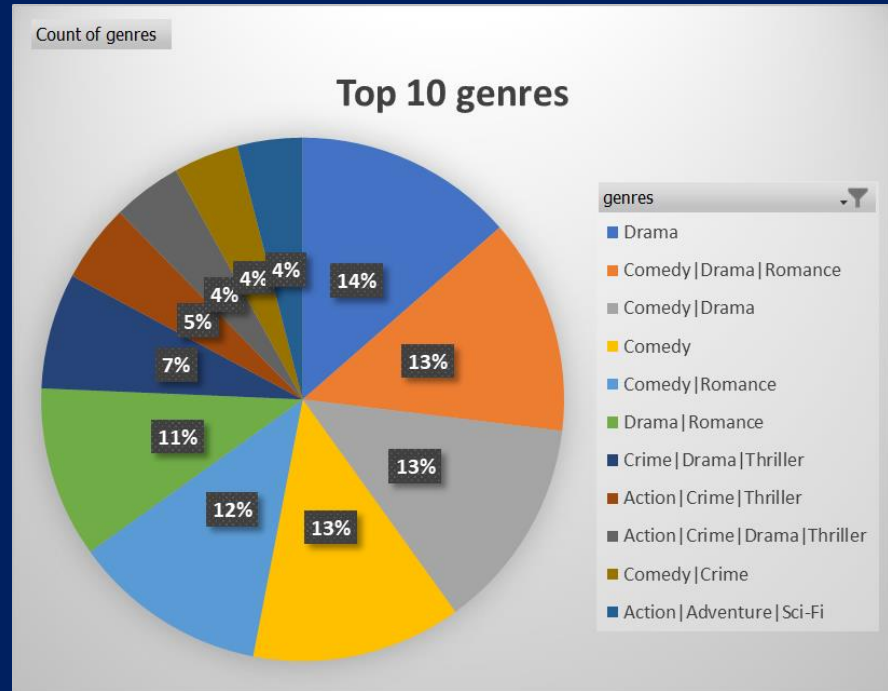
Steps to get top 10 genres-

1. Use Pivot Table to group the genres with highest count.
2. Use value filter to get top 10 genres.
3. Plot the pie chart.



# Result

Genres	Count of genres
Drama	152
Comedy Drama Romance	149
Comedy Drama	147
Comedy	145
Comedy Romance	135
Drama Romance	118
Crime Drama Thriller	80
Action Crime Thriller	54
Action Crime Drama Thriller	48
Comedy Crime	45
Action Adventure Sci-Fi	45



# Charts

Who has the most reviews of critics and users among Leonardo DiCaprio, Brad Pitt and Meryl Streep. Also plot the graph for growth of users votes for past 10 decades.



# Approach

Steps to get the charts-

1. Use pivot table to get all three actors in column with their critics and user reviews in rows.
2. Plot the chart.
3. Now use title year and sum of user votes to plot the graph of user growth.
4. Use group function to group the years in the interval of 10 years.
5. Plot the chart.





# Result

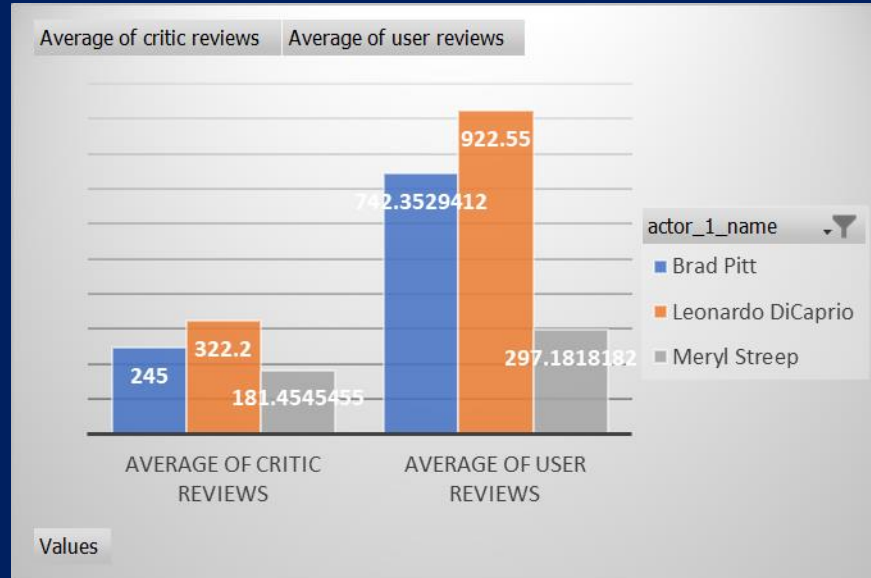
Brad Pitt	Leonardo DiCaprio	Meryl Streep
Babel	Blood Diamond	
By the Sea	Body of Lies	A Prairie Home Companion
Fight Club	Catch Me If You Can	
Fury	Django Unchained	Hope Springs
Interview with the Vampire: The Vampire Chronicles	Gangs of New York	
Killing Them Softly	Inception	It's Complicated
Mr. & Mrs. Smith	J. Edgar	
Ocean's Eleven	Marvin's Room	Julie & Julia
Ocean's Twelve	Revolutionary Road	
Seven Years in Tibet	Romeo + Juliet	Lions for Lambs
	Shutter Island	One True Thing
Sinbad: Legend of the Seven Seas	The Aviator	Out of Africa
Spy Game	The Beach	
	The Departed	The Devil Wears Prada
The Assassination of Jesse James by the Coward Robert Ford	The Great Gatsby	
	The Man in the Iron Mask	The Hours
The Curious Case of Benjamin Button	The Quick and the Dead	
The Tree of Life	The Revenant	The Iron Lady
Troy	The Wolf of Wall Street	
True Romance	Titanic	The River Wild

Combined	Group by
Babel	Brad Pitt
By the Sea	Brad Pitt
Fight Club	Brad Pitt
Fury	Brad Pitt
Interview with the Vampire: The Vampire Chronicles	Brad Pitt
Killing Them Softly	Brad Pitt
Mr. & Mrs. Smith	Brad Pitt
Ocean's Eleven	Brad Pitt
Ocean's Twelve	Brad Pitt
Seven Years in Tibet	Brad Pitt
Sinbad: Legend of the Seven Seas	Brad Pitt
Spy Game	Brad Pitt
The Assassination of Jesse James by the Coward Robert Ford	Brad Pitt
The Curious Case of Benjamin Button	Brad Pitt
The Tree of Life	Brad Pitt
Troy	Brad Pitt
True Romance	Brad Pitt
Blood Diamond	Leonardo DiCaprio
Body of Lies	Leonardo DiCaprio
Catch Me If You Can	Leonardo DiCaprio
Django Unchained	Leonardo DiCaprio
Gangs of New York	Leonardo DiCaprio
Inception	Leonardo DiCaprio
J. Edgar	Leonardo DiCaprio
Marvin's Room	Leonardo DiCaprio
Revolutionary Road	Leonardo DiCaprio
Romeo + Juliet	Leonardo DiCaprio
Shutter Island	Leonardo DiCaprio
The Aviator	Leonardo DiCaprio
The Beach	Leonardo DiCaprio
The Departed	Leonardo DiCaprio
The Great Gatsby	Leonardo DiCaprio
The Man in the Iron Mask	Leonardo DiCaprio
The Quick and the Dead	Leonardo DiCaprio
The Revenant	Leonardo DiCaprio
The Wolf of Wall Street	Leonardo DiCaprio
A Prairie Home Companion	Meryl Streep
Hope Springs	Meryl Streep
It's Complicated	Meryl Streep
Julie & Julia	Meryl Streep
Lions for Lambs	Meryl Streep
One True Thing	Meryl Streep
Out of Africa	Meryl Streep
The Devil Wears Prada	Meryl Streep
The Hours	Meryl Streep
The Iron Lady	Meryl Streep
The River Wild	Meryl Streep



# Result

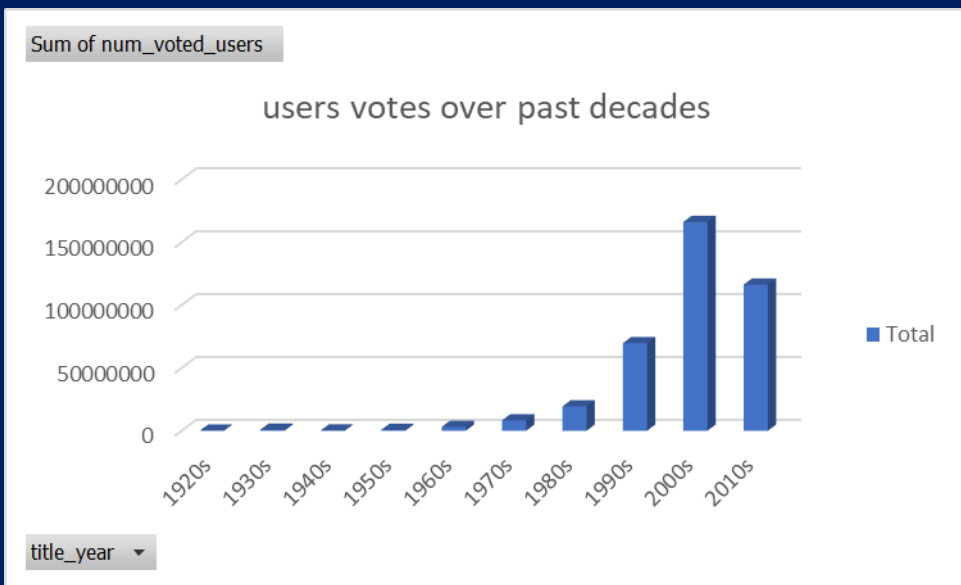
Values	Brad Pitt	Leonardo DiCaprio	Meryl Streep
Average of critic reviews	245	322.2	181.4545455
Average of user reviews	742.3529412	922.55	297.1818182



# Result

df_by_decades	Sum of num_voted_users
1920s	116387
1930s	804839
1940s	230838
1950s	678336
1960s	2983442
1970s	8269828
1980s	19344369
1990s	69635863
2000s	166041149
2010s	116239604

**Exponential Growth in user votes since past 10 decades**



## Insights & Results-

**This project helped me understand different types of techniques and functions of MS excel.**



# Thanks

