

DBMS - 2

Assignment - 3



Team:

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INTRODUCTION:

- In this assignment, we have written queries based on relational tables, ER diagrams designed in assignment 1,2.
- We have done some changes to changes to the ER diagram, all of them are listed below.
- Some extra information is printed for some of the questions because we thought this way the information provided would be more informative.

ASSUMPTIONS/MODIFICATIONS:

- Assumptions made for all the queries are mentioned below the corresponding query numbers in results.
- Extra attributes are added to some of the entities to correlate our relational schema and the given data set more cohesively.
- We removed the RTC entity from the previous version, and added release_date, rating, filmedin(info) to movie & episode attributes.
- We Added Award_id attribute in the Award table.
- We added antisocial elements in tv_serirs, movies, and episodes separately.
- We removed all foreign key relations as it was becoming difficult to edit.
- We considered unique identifiers as the names wherever asked.
- We added languages, regions, and ordering to Entertainment_product. As id and ordering make a Unique key.
- We removed the location entity completely as we believe it was more of a hindrance than a helpful. So in accordance, corresponding attributes are added to the movie, tv series and episode tables.
- The cast_and_crew relation now is directly connected to entertainment product instead of separately and individually connected to episode and movie entities.
- Region, genre, language of release are now single valued attributes instead of multi valued attributes as the given data set considers these attributes as a string.

- In Person we added the Award_id attribute, which is an array of award_id's won by that person.
- Inner Join between necessary tables is used when the required data cannot be fetched from a single table.
- The Create View command is used to create data sets so that they can be referenced for the future queries or make the query search easier.
- Partition by command is used to fetch data separately corresponding to every specific group.
- Some of the questions do not have results as the given data set is not sufficient to fetch the data asked in the corresponding question.

FILES SUBMITTED:





There are some changes in the relational schema and the same were reflected in the SQL code that is submitted along with the query file. Necessary changes are made in the code to fill the tables as well as there changes in the relational schema.

Files submitted are:-

28_relation_schema.sql	Relation schema (creating tables)
28_data_base.sql	loading the tables
28_temp_data.sql	creating & loading temp tables from data set
28_query.sql	Queries for Assignment-3
28_report.pdf	Detailed report.

RESULTS

Q1

Data Output		Explain	Messages	Notifications
	 id text	 movie_name text	 arr text[]	
1	tt0003...	In the Days of the Thundering ...	{nm0132324,nm0334918}	
2	tt0016...	She	{nm0760547,nm0208113}	
3	tt0019...	Tarzan the Mighty	{nm0625424,nm0853028}	
4	tt0021...	They Learned About Women	{nm0939992,nm0176699}	
5	tt0021...	Der unsterbliche Lump	{nm0879802,nm0562004}	
6	tt0024...	Whistling in the Dark	{nm0718469,nm0637790}	
7	tt0026...	Murder in Harlem	{nm0584778,nm0930293}	
8	tt0026...	She	{nm0681635,nm0390226}	
9	tt0029...	Skicka hem Nr. 7	{nm0062183,nm0906291}	
10	tt0029...	Der zerbrochene Krug	{nm0417837,nm0879802}	
11	tt0031...	Hell's Kitchen	{nm0243295,nm0782597}	
12	tt0031...	Los hijos de la noche	{nm0674398,nm0894022}	
13	tt0032...	Busman's Honeymoon	{nm0861703,nm0940499}	
14	tt0035...	Hans Onsdagsveninde	{nm0491504,nm0641045}	
15	tt0036...	Salainen ase	{nm0527490,nm0881407}	
16	tt0040...	You Gotta Stay Happy	{nm0693281,nm0487237}	
17	tt0041...	My Dream Is Yours	{nm0293989,nm0002031}	
18	tt0042...	Den opvakte jomfru	{nm0491504,nm0641045}	
19	tt0043...	Cerca del cielo	{nm0690041,nm0897340}	
20	tt0044...	King of the Congo	{nm0071560,nm0342622}	
21	tt0046...	La rosa blanca	{nm0273477,nm0553949}	
22	tt0046...	Sang et lumières	{nm0745801,nm0616347}	
23	tt0048...	A Life in the Balance	{nm0395105,nm0692414}	
24	tt0048...	Love Is a Many-Splendored Thi...	{nm0454771,nm0485871}	
25	tt0048...	Souls in Conflict	{nm0716119,nm0743362}	

Since the director list is string data type initially, it was converted to array data type later in order to know the cardinality of the list of directors corresponding to the movie

Q2





```
8 SELECT nid, name FROM person
9 WHERE name = 'Zack Snyder';
```

Data Output	Explain	Messages	Notifications
	nid [PK] text	name text	
1	nm0811583	Zack Snyder	




Data Output	Explain	Messages	Notification:
	nid text	director text	mc bigint
1	nm0372176	nm0811583	1
2	nm0180411	nm0811583	1
3	nm0147147	nm0811583	3
4	nm3009232	nm0811583	1
5	nm0010736	nm0811583	3
6	nm0015196	nm0811583	1
7	nm0355097	nm0811583	1
8	nm0115161	nm0811583	1
9	nm0597388	nm0811583	1
10	nm0836343	nm0811583	1
11	nm0922035	nm0811583	1
12	nm0916617	nm0811583	1
13	nm1120593	nm0811583	1
14	nm0001616	nm0811583	1
15	nm0920992	nm0811583	2
16	nm2933757	nm0811583	2

The director column was initially string data type and later was split into tables. Later natural join between movie and cast_and_crew tables is used to find director and actor pair. From there we selected the actors if their maximum movies with a director is equal to maximum movies with 'Zack Snyder'.


Q4

	Data Output	Explain	Messages	Notifications
	 nid text	 director text	 count bigint	 rating double precision
1	nm0293530	nm0695937	1	7.3
2	nm0485388	nm0548096	1	7.7
3	nm0000818	nm1142222	1	7.1
4	nm0162134	nm0440317	1	7.4
5	nm0084435	nm0154206	1	7.9
6	nm5345492	nm5344999	1	8
7	nm6130968	nm5954636	1	8.6
8	nm5544029	nm7635529	1	7.4
9	nm1621887	nm1528235	1	7.4
10	nm0901513	nm0540949	1	7.3
11	nm4583370	nm4583370	1	9.5
12	nm0777717	nm0778247	1	7.2
13	nm5514564	nm0952569	1	7.2
14	nm12057790	nm10965365	1	8
15	nm6816398	nm2316935	1	7.1
16	nm1188555	nm0619162	1	7.4
17	nm4779485	nm0673278	1	7.5
18	nm0097008	nm1986754	1	7.2
19	nm1621887	nm1065292	1	7.4
20	nm5216544	nm5221134	1	7.5
21	nm9317894	nm9311497	1	8.6
22	nm0700354	nm0136579	1	7.4
23	nm0878240	nm0724798	1	7.5
24	nm1603571	nm7799316	1	7.7
25	nm0767800	nm0710563	1	7.9
26	nm6155343	nm6405127	1	7.2
27	nm0949350	nm0383111	1	7.9
28	nm0000620	nm0000233	1	8
29	nm0611481	nm0320890	1	7.2
30	nm1245618	nm0562925	1	8.4


Q5

Data Output	Explain	Messages	Notifications
<div> <div>▲</div> <div>Id [PK] text </div> </div>	<div> <div>series_name text </div> </div>	<div> <div>long_aired integer </div> </div>	
1 tt0195452	Crackerjack!		65
2 tt0043224	The Red Skelton ...		65


Q6

Data Output	Explain	Messages	Notifications
<div> <div>▲</div> <div>directors text </div> </div>			
1 nm11859548			




Q7

Data Output	Explain	Messages	Notifications
<div> <div>▲</div> <div>series_name text </div> </div>			
1 Heartwork: Symphony Destruction			

Q7_2

Data Output	Explain	Messages	Notifications
<div> <div>▲</div> <div>movie_name text </div> </div>			
1 Kuroi danchi tsuma: Ninshin shitai nyūkyo-sha			
2 Bishimai rezu: Kichū no hi ni...			

Q8

	Data Output	Explain	Messages	Notifications
	 director text	 ratings double precision		
1	nm11405210		9.95	
2	nm11178176		9.8	
3	nm10703150		9.8	
4	nm1096148		9.8	
5	nm10971510		9.8	

For this query we used the virtual table in Q2 and printed nid of directors with top rating.

Q3) There is no required awards data corresponding to a movie to run the query

Q9) There is no required production company data corresponding to a tv series to run the query

Q10) There is no required Oscar awards data corresponding to a person/entertainment product to run the query

Q12) There is no required box office collections data corresponding to a movie to run the query

Q16) There is no required filmed in location data corresponding to a tv series to run the query

Q11

Data Output	Explain	Messages	Notifications
	nid text	score double precision	
1	nm0627864	63.9403	
2	nm0001238	57.16167597765364	
3	nm0002031	54.49875	
4	nm0064415	48.2952380952381	
5	nm0554924	44.63507462686567	
6	nm0782947	44.00363636363637	
7	nm0484645	43.71090909090909	
8	nm0861703	42.89945736434109	
9	nm0853028	40.868852459016395	
10	nm0781261	40.3495867768595	
11	nm0000406	40.14925	
12	nm0437356	40.01470588235294	
13	nm0061792	38.98823529411765	
14	nm0385171	38.784	
15	nm0947998	37.485727272727274	
16	nm0792450	37.01238532110092	
17	nm0217035	36.09133333333333	
18	nm0706484	34.944117647058825	
19	nm0939147	34.90970873786408	
20	nm0567757	34.57415841584159	
21	nm0005847	33.813737373737375	
22	nm0245385	33.800714285714285	
23	nm0071560	33.668571428571425	
24	nm0768422	33.39642857142857	
25	nm0001090	33.07767676767676	
26	nm0187671	33.02360824742268	
27	nm0151653	32.71351063829787	

Since there are no assistant directors in the given data, we just considered directors where the corresponding multiplication factor is 1 instead of 0.8 for their movies.







Q13

Data Output		Explain	Messages	Notifications
	nid text			
1	nm0000001			
2	nm0000002			
3	nm0000003			
4	nm0000005			
5	nm0000007			
6	nm0000008			
7	nm0000009			
8	nm0000011			
9	nm0000012			
10	nm0000013			
11	nm0000015			
12	nm0000018			
13	nm0000019			
14	nm0000020			
15	nm0000021			
16	nm0000023			
17	nm0000024			
18	nm0000027			
19	nm0000029			
20	nm0000030			
21	nm0000032			

Q14

Data Output	Explain	Messages	Notifications
	release_date integer	episode_name text	min_runtime integer
1	1931	Episode dated 18 S...	15
2	1931	Episode dated 21 A...	15
3	1931	Episode #1.1	15
4	1931	Episode dated 2 Oct...	15
5	1931	Episode dated 11 S...	15
6	1932	Episode dated 26 S...	15
7	1933	Episode dated 20 F...	15
8	1934	Jack Frost	8
9	1935	Hoi Polloi	17
10	1936	Episode #1.1	10
11	1937	Episode #1.3	5
12	1938	Flat Foot Stooges	16
13	1939	The Almost Perfect ...	15
14	1940	Knock Knock	7
15	1941	Pantry Panic	7
16	1941	Woody Woodpecker	7
17	1942	Issue No. 1	11
18	1943	Issue No. 17	9
19	1943	Issue No. 18	9
20	1943	Issue No. 4	9

Q15







Data Output		Explain	Messages	Notifications	
	id  text	movie_name  text	genre  text	rating  double precision	row_no  bigint
1	tt6596...	Bluefish	Action	9.4	1
2	tt9526...	College Diary	Action	9.4	2
3	tt1041...	Munduvareda Ad...	Action	9.4	3
4	tt0160...	Girls Loving Girls	Adult	10	1
5	tt0134...	Busty Biker Babes	Adult	9.8	2
6	tt0143...	Nicole's Revenge	Adult	9.7	3
7	tt1044...	Uncivilized	Adventure	9.7	1
8	tt1169...	Single Ladies IV	Adventure	9.7	2
9	tt1358...	Surveillance Cam...	Adventure	9.6	3
10	tt1237...	Pets	Animation	9.6	1
11	tt6596...	Bluefish	Animation	9.4	2
12	tt1286...	30 Years and 15 ...	Animation	9.2	3
13	tt1486...	Lo spirito del serc...	Biography	9.7	1
14	tt3854...	Queen of Thursda...	Biography	9.7	2
15	tt6259...	Dolorosa Gioia	Biography	9.7	3
16	tt1116...	Orangutan	Comedy	9.8	1
17	tt1206...	Tenets of the Mal...	Comedy	9.7	2
18	tt0997...	Cafe Coexistence	Comedy	9.7	3
19	tt6259...	Dolorosa Gioia	Crime	9.7	1
20	tt4335...	De nuevo a la vida	Crime	9.5	2
21	tt5076...	Baytown's Finest	Crime	9.5	3
22	tt1192...	Days of Géants	Documen...	10	1
23	tt1237...	Barcelona - Madrid	Documen...	10	2
24	tt1298...	Days of Géants II	Documen...	9.9	3
25	tt1320...	L'aria del lago	Drama	9.8	1
26	tt6772...	Parallel Parking	Drama	9.8	2
27	tt1116...	Orangutan	Drama	9.8	3
28	tt1195...	Mnohaya lita. Sto...	Family	9.7	1
29	tt1367...	Ando	Familv	9.7	2

Q17

Data Output		Explain	Messages	Notifications
	<div><div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div></div><div>id</div><div>[PK] text</div></div>	<div><div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div></div><div>movie_name</div><div>text</div></div>	<div><div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div></div><div>release_date</div><div>integer</div></div>	<div><div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div></div><div>isadult</div><div>boolean</div></div>
1	tt0145430	Rebecca, la signora del desiderio	1995	true
2	tt0160090	Buttman's Big Butt Backdoor Babes	1995	true
3	tt0237315	La calda vita di Al Capone	1995	true
4	tt0274142	Swedish Erotica 78	1995	true
5	tt0125344	L'ultimo treno	1995	true
6	tt0143768	Nicole's Revenge	1995	true
7	tt0122940	Angel Wolf	1995	true
8	tt0208916	Don Salvatore - L'ultimo siciliano	1995	true
9	tt0298255	The Caracas Adventure	1995	true
10	tt0124213	Wide Open Spaces	1995	true
11	tt0156261	Action Packed	1995	true
12	tt0383224	Nessa no wakusei - Jokouankan: Kate	1995	true
13	tt0110214	Tharzan - La vera storia del figlio della giungla	1995	true
14	tt0114855	Virtual Desire	1995	true
15	tt0114401	Sex and Money	1995	true
16	tt0274143	Swedish Erotica 79	1995	true
17	tt0205730	L'albero delle zoccole	1995	true
18	tt0160590	Nurses Are Cumming	1995	true
19	tt4683638	Ona's Doll House	1995	true
20	tt0156276	All Amateur Perfect 10's	1995	true
21	tt0125199	Il marito	1995	true
22	tt0124371	Della Borsa	1995	true




Since we don't have compound data of certificate & location from the given data set, we just considered ,If isAdult is true as A certificate movie. And printed Every adult movie in 1995.

Q18

Data Output		Explain	Messages	Notifications						
	nid text		name text		birth_year integer		role text		row_no bigint	
1	nm10913258		Shea Lightfoot		2019		actor		1	
2	nm11929892		Lilah Sykes		2020		actress		1	
3	nm11564929		Wilfred Johnson		2020		archive_footage		1	
4	nm6386378		Dom Fantana		2000		archive_sound		1	
5	nm6168671		Mike Nijdam		2005		cinematographer		1	
6	nm5513057		Murzylka		2009		composer		1	
7	nm12203950		Amairani Gómez		2020		director		1	
8	nm10816648		Tom Sykes		2005		editor		1	
9	nm8531667		Mingze Liu		2007		producer		1	
10	nm3812397		Taya-Morgan Moore		2002		production_desi...		1	
11	nm12222762		Matteo Chigvintsev		2020		self		1	
12	nm11077484		Shiloh Bearman		2011		writer		1	

For many people, birth_year was null, we eliminated persons with birth year null and partitioned by role and ordered by birth year in descending order.

Q19

Data Output	Explain	Messages	Notifications
 nid text		count bigint	
1	nm0000010		1
2	nm0000080		1
3	nm0000795		1
4	nm0001008		1
5	nm0001088		1
6	nm0004746		1
7	nm0006837		1
8	nm0021201		1
9	nm0118059		1
10	nm0123221		1
11	nm0326679		1
12	nm0336335		1
13	nm0347858		1
14	nm0432213		1
15	nm0493126		1
16	nm0633271		1
17	nm0649185		1
18	nm0843401		1
19	nm0850074		1
20	nm0921276		3
21	nm10596690		1
22	nm1065785		1
23	nm11957853		1
24	nm1955540		1
25	nm2233358		2
26	nm2773421		1
27	nm3498099		1
28	nm5080976		1
29	nm6650760		1
30	nm6676867		1
31	nm8973157		1

Since there is no role as music technician so we took the “archive_sound” role as a musician role.

Q20

Data Output		Explain	Messages	Notifications
	nid text		max_crew bigint	
1	nm0000135		7	
2	nm0000408		7	
3	nm0000447		7	
4	nm0000556		7	
5	nm0000607		7	
6	nm0000625		7	
7	nm0000711		7	
8	nm0000757		7	
9	nm0000770		7	
10	nm0000790		7	
11	nm0000844		7	
12	nm0000864		7	
13	nm0000868		7	
14	nm0000873		7	
15	nm0000892		7	
16	nm0000911		7	
17	nm0001052		7	
18	nm0001126		7	
19	nm0001138		7	
20	nm0001147		7	
21	nm0001205		7	
22	nm0001219		7	
23	nm0001339		7	
24	nm0001407		7	
25	nm0001535		7	

For this query we took a movie titled as Angel Wolf, the no.of crew worked in this movie is 7.And the list of actors worked in 7 movies is printed.

THE END.