

Report of Assignment 3

Database Management System

-Group 27

-EP19BTECH11003,07,23,25

In this we were queries to perform on our database which we designed in our previous assignments.

For queries doesn't have data will have no screenshot of the output, but it is made from the design of the ER diagram and for missing data explanations is highlighted with red.

1. Write a query to find the list of movies that are directed by at least 2 directors.

Explanation: In this we selected the name of movies from product and dandw.directors as it is an array of directors which directed it so we selected them and put a condition that size of the director should be more than and equal to 2. And that gives us the desired output.

Screenshot:

Data Output	Explain	Messages	Notifications
	primarytitle text	directors character varying[] (100)	
1	Magda	{nm0063413,nm0550220}	
2	In the Days of the Thundering Herd	{nm0132324,nm0334918}	
3	La emboscada trágica	{nm0148546,nm0813682}	
4	La loca del monasterio	{nm0813682,nm0148546}	
5	The Mystery of the Double Cross	{nm0662006,nm0309163}	
6	Mothers of France	{nm0381178,nm0580197}	
7	Joan of Plattsburg	{nm0401967,nm0875869}	
8	Congestion	{nm0231060,nm0659816,nm3...	
9	Carmen of the North	{nm0082914,nm0626455}	
10	Love, Honor and Behave!	{nm0428059,nm0448915}	
11	Pour don Carlos	{nm0209558,nm0615736}	
12	Zuster Brown	{nm0082914,nm0236245}	
13	Adventures of Tarzan	{nm0796657,nm0384616}	
14	Dr. Jack	{nm0628345,nm0853130}	
15	De jantjes	{nm0082914,nm0236245}	
16	The Mohican's Daughter	{nm0853130,nm0853193}	
17	Quo Vadis?	{nm0414985,nm1883879}	
18	Before Midnight	{nm0012317,nm0320102}	
19	Blue Blazes	{nm0603096,nm0291838}	
20	The Student Prince in Old Heidelberg	{nm0523932,nm0821472}	
21	The Air Circus	{nm0001328,nm0782597}	
22	A Modern Casanova	{nm0643138,nm0910446}	
23	The Sunset Legion	{nm0408937,nm0921288}	
24	Tarzan the Mighty	{nm0853028,nm0625424}	
25	Fast Company	{nm0840042,nm0461348}	

2. Find all the actors that made more movies with Zack Snyder than any other director.



Explanation: We start by creating a relation of actor director pair from the person and cast-crew database. This is done by creating table of movies done by the actors and named as a and for directors named as b. From that

we defined in the relation in which actors and directors worked in same movie by equating tconst of the table and named it as actor director pair relation. From here it is just a simple select of the names of actors having condition that

Count(Actor with “Zack Snyder”) > Count (Actor without “Zack Snyder”)

This query becomes long due to selection from table from scratch.

Screenshot:

Data Output	Explain	Messages	Notifications
	primaryname text		
1	Dominic West		
2	Henry Cavill		

3. Find the movie that has won fewer than 2 awards.

Explanation: As award was optional in the attribute in the product .So We select movies from product with the help of movie_info and set the length of the award array <2 from which we get movies that have less than 2 awards.

4. Find the pair of actor and movie director, provided that the movie done by them has a rating above 7 and movie done by the pair should be at most 2.

Explanation: This query is almost the same as 2 just we took respective actors and directors as a and b in the movie. Creating actor directors' pairs for each movie. Just adding a few conditions with the help of ratings table for having ratings greater than 7 and pairs for them should be less than 2.

Screenshot:

Data Output	Explain	Messages	Notifications
	actorname text	directorname text	count bigint
1	Fred Astaire	Stanley Kramer	1
2	Fred Astaire	Robert Allen	1
3	Fred Astaire	Vincente Minnelli	1
4	Fred Astaire	William A. Seiter	2
5	Fred Astaire	George Stevens	1
6	Fred Astaire	Norman Taurog	1
7	Fred Astaire	Charles Walters	1
8	John Belushi	John Landis	2
9	Humphrey Bog...	Billy Wilder	1
10	Humphrey Bog...	Howard Hawks	2
11	Humphrey Bog...	Lloyd Bacon	1
12	Humphrey Bog...	Curtis Bernhardt	1
13	Humphrey Bog...	Richard Brooks	1
14	Humphrey Bog...	John Cromwell	1
15	Humphrey Bog...	Delmer Daves	1
16	Humphrey Bog...	Edward Dmytryk	1
17	Humphrey Bog...	Edmund Goulding	1
18	Humphrey Bog...	Zoltan Korda	1
19	Humphrey Bog...	Archie Mayo	1
20	Humphrey Bog...	Nicholas Ray	1
21	Humphrey Bog...	Mark Robson	1
22	Humphrey Bog...	Vincent Sherman	1
23	Humphrey Bog...	Bretaigne Windust	1
24	Humphrey Bog...	William Wyler	2
25	Marlon Brando	Francis Ford Copp...	2

5. Find the name of the TV series which aired for the longest duration.

Explanation: In this query we just we tv series has the longest duration as Tv series contains the runtime of all the episodes combined. So just find the max runtime from the product given the long-aired TV series.



Screenshot:

Data Output		Explain	Messages	Notifications	
	<div><div></div><div>primarytitle</div><div>text</div></div>	<div><div></div></div>	<div><div>maxruntime</div><div>bigint</div></div>	<div><div></div><div>titletype</div><div>text</div></div>	<div><div></div></div>
1	The Sharing Circle		8400	tvSeries	

6. Find the name of the director who directed the 2nd shortest movie in the year 2020.

Explanation:

Screenshot:





	Data Output	Explain	Messages	Notifications
	 primaryname text			
1	Tony Boldi			
2	Ayush Joshi			
3	Nashir Stan			
4	Natasha Canepa			
5	Natasha Canepa			
6	Susan Huang			
7	Stacy Moon			
8	Nadya Sugiarto			
9	Sophia Carr-Gomm			

7. Print the adult movie and adult TV series with the lowest average rating.

Explanation: First select minimum rating of the adult movies and tv Series from rating and product table. Having a minimum rating using min for ratings.avgrating after that as we have the minimum rating, we just find the

name of movie and TV series from the product and group it by the categories which is movie and tvSeries.

Screenshot:

	Data Output	Explain	Messages	Notifications
	 tconst text	 primarytitle text	 titletype text	 averagerating numeric
1	tt1219322	Bishimai rezu: K...	movie	1.1
2	tt3471528	Kuroi danchi tsu...	movie	1.1
3	tt5081662	Heartwork: Love...	tvSeries	3.0

8. Print the Top 5 directors based on their average rating of all the movies he/she has directed.(In case of equal print all.)

Explanation: First we find the max average in rating for each director by using average function and selecting category for director then we sort the directors by decreasing rating. And use this thing for IN for the outer select for getting name of directors for top 5 average rating.

Screenshot:

	Data Output	Explain	Messages	Notifications
	nconst text		avg numeric	
25	nm10146654		10.0000000000000000	
26	nm10146655		10.0000000000000000	
27	nm1745923		10.0000000000000000	
28	nm1882419		10.0000000000000000	
29	nm1910620		10.0000000000000000	
30	nm2122729		10.0000000000000000	
31	nm2270956		10.0000000000000000	
32	nm2759321		10.0000000000000000	
33	nm11100446		10.0000000000000000	
34	nm3346055		10.0000000000000000	
35	nm5276186		10.0000000000000000	
36	nm5496332		10.0000000000000000	
37	nm11405210		9.9500000000000000	
38	nm2568423		9.9000000000000000	
39	nm11309964		9.9000000000000000	
40	nm1827228		9.9000000000000000	
41	nm8636352		9.9000000000000000	
42	nm8704114		9.9000000000000000	
43	nm12190670		9.9000000000000000	
44	nm1834431		9.9000000000000000	
45	nm5382389		9.9000000000000000	
46	nm4927265		9.9000000000000000	
47	nm1427253		9.9000000000000000	
48	nm2433617		9.9000000000000000	
49	nm12096917		9.9000000000000000	

9. Print TV series produced by 2 or more production companies and same has been released in at least 3 different countries.

Explanation: We created a relation saying more than 3 regions in this we have the products which has more than 3 locations. In this location is represents country. Then we create the from production company and regionmorethan3 having the condition that we have more than 2 production houses. From this we select the Tv Series to get the output .

10. Print the name of the actors in the decreasing order of the year of their Oscar wins.

Explanation: Selecting the actors from cast&crew that work in movies and named it as Movie actor after selecting min(award.year) from awards and having condition that the award name is "OSCAR" and group it by name of actors and year .

11. You want to make a movie and you are searching for the best director.

List the directors in descending order of their score based on their experience and average movie ratings. Note the score is defined as $\text{Score} = 0.3 * \text{experience} + 0.7 * \text{average movie ratings}$ where,

- experience = number of movies for which he/she worked as director or asst director.

- Average movie ratings = $0.8 * \text{average movie ratings}(\text{worked as director}) + 0.2 * \text{average movie ratings}(\text{worked as asst-director})$.

Explanation:

We first selected all the nconst who worked as directors and assistant directors in movies and added avg rating to that movie from ratings table then we applied the formula given in question by grouping upon nconst and ordered the rows in desc according to score and limited the rows to 1

Screenshot:

	nconst text	primaryname text	score numeric
1	nm0627864	Sam Newfield	63.152240000000000000000000

12.For each genre, print the top 5 movie names and its director name based on their earnings(box office collection - movie budget

Explanation:

13. Print actors who have worked in movies as well as TV series

Explanation: We just select those rows which we worked in a tv series then after that we find the intersection by using selection from that table for finding actors that worked in the movie.

Screenshot:

Data Output	Explain	Messages	Notifications
	primaryname text		
1	Parvin Dabas		
2	Kambiz Dirbaz		
3	Biswajit Chakraborty		
4	Tony Oller		
5	Kohtee Aramboy		
6	Biswajit Chakraborty		
7	Hakuryû		
8	I-Chen Ko		
9	Can Bartu Aslan		
10	Michael Wong		
11	Biswajit Chakraborty		
12	Garrett Morosky		
13	Germaine De Leon		
14	Victor Neri		
15	Gary Private		
16	Biswajit Chakraborty		
17	Ron Funches		
18	Sachin Pilgaonkar		
19	Jason Alexander		
20	Roland Winters		
21	Vittorio Gassman		
22	Nobuo Yana		
23	Kuei Chang		
24	Dom DeLuise		
25	Paavo Piskonen		

14. Print actors who have worked in movies as well as TV series.

Explanation: For find this we select those rows having min runtime and are TV series from product and group by it start year since it is when the series is started. After that just selecting the primary title from products to get the name of the TV series in increasing order.

Screenshot:

Data Output	Explain	Messages	Notifications
	startyear bigint	primarytitle text	
1	1931	Episode dated 18 September 1931	
2	1931	Episode dated 11 September 1931	
3	1931	Episode #1.1	
4	1931	Episode dated 2 October 1931	
5	1931	Episode dated 21 August 1931	
6	1932	Episode dated 26 September 1932	
7	1933	Episode dated 20 February 1933	
8	1934	Jack Frost	
9	1935	Hoi Polloi	
10	1936	Episode #1.1	
11	1937	Episode #1.3	
12	1938	Flat Foot Stooges	
13	1939	The Almost Perfect Murder	
14	1940	Knock Knock	
15	1941	Woody Woodpecker	
16	1941	Pantry Panic	
17	1942	Issue No. 1	
18	1943	Issue No. 23	
19	1943	Issue No. 4	
20	1943	Issue No. 18	
21	1943	Issue No. 19	
22	1943	Issue No. 13	
23	1943	Issue No. 17	
24	1944	The Barber of Seville	
25	1944	Ski for Two	

15. You want to suggest some good movies to your friends. Genre wise print the top 3 rated movies.

Screenshot:

	Data Output	Explain	Messages	Notifications
	primarytitle text	genre character varying	rank bigint	
1	Bluefish	Action	1	
2	College Diary	Action	2	
3	A Father's Fight	Action	3	
4	Girls Loving Girls	Adult	1	
5	Busty Biker Babes	Adult	2	
6	Nicole's Revenge	Adult	3	
7	Single Ladies IV	Adventure	1	
8	Uncivilized	Adventure	2	
9	Surveillance Ca...	Adventure	3	
10	Pets	Animation	1	
11	Bluefish	Animation	2	
12	30 Years and 15...	Animation	3	
13	The Journey	Biography	1	
14	Pou sai more Ni...	Biography	2	
15	Sadika: The Mul...	Biography	3	
16	Filthy Swine	Comedy	1	
17	Making the Day	Comedy	2	
18	Orangutan	Comedy	3	
19	Stray Kids	Crime	1	
20	Raktha Gulabi	Crime	2	
21	Sweet Pain	Crime	3	
22	The Journey	Documentary	1	
23	Barcelona - Mad...	Documentary	2	
24	Homeland Natio...	Documentary	3	
25	A Roda da Vida	Drama	1	

16. Find the movies and TV series who have filmed in Switzerland. A TV series can be counted as filmed in a country if there exists at least one episode filmed in that country.

Explanation:

First we found the Tv series which are shooted in Switerland and movies
filmed at switzerland and then simply applied a union on both

17. List all movies who have A certificate in the same location in the year 1995.

Explanation: We created an adult movie relation having conditions of adult movie and start year =1995. Created two relation l2, and l1 which natural join of location and adult movies after that selecting the name of the movies from l1 and l2 having condition $l1.location = l2.location$ and movies should have same name as they released in same year and have same location which is done by $l1.primarytitle \neq l2.primarytitle$.

18. For each profession print the youngest one.

Explanation: This is the easier the just using cast&crew and person for this relation selecting the category from the cast&crew and taking max value of birth year as he will be the youngest one and group it by category.

Screenshot:

	Data Output	Explain	Messages	Notifications
	primaryname text	category text	birthyear bigint	
1	Shea Lightfoot	actor	2019	
2	Lilah Sykes	actress	2020	
3	Daisy Bloom	archive_footage	2020	
4	Rue Shumpert	archive_footage	2020	
5	Wilfred Johnson	archive_footage	2020	
6	Dom Fantana	archive_sound	2000	
7	Jacob Bertrand	archive_sound	2000	
8	Brayden Lacer	cinematographer	2005	
9	Mike Nijdam	cinematographer	2005	
10	Murzylka	composer	2009	
11	Amairani Gómez	director	2020	
12	Tom Sykes	editor	2005	
13	Mingze Liu	producer	2007	
14	Dylan Mitchell	production_designer	2000	
15	Emily Adrig	production_designer	2000	
16	Buddy Danielson	self	2020	
17	Lilah Sykes	self	2020	
18	Matteo Chigvintsev	self	2020	
19	Shiloh Bearman	writer	2011	

19. Print all the music technicians(soundtrack producers) who have worked for at least 5 movies.

Explanation: We create a relation named as experienced composer in this we just count the movies by each composer set the condition that count of movies should be greater than five. After that we just the name of the person from the person table.

Screenshot:

Data Output	Explain	Messages	Notifications
	nconst [PK] character varying (50)		primaryname text
1	nm0000016		Georges Delerue
2	nm0000025		Jerry Goldsmith
3	nm0000035		James Horner
4	nm0000049		Henry Mancini
5	nm0000055		Alfred Newman
6	nm0000065		Nino Rota
7	nm0000067		Miklós Rózsa
8	nm0000070		Max Steiner
9	nm0000077		Franz Waxman
10	nm0000082		Victor Young
11	nm0000118		John Carpenter
12	nm0000187		Madonna
13	nm0000290		John Barry
14	nm0000309		David Bowie
15	nm0000384		Danny Elfman
16	nm0000573		Dolly Parton
17	nm0000647		Alan Smithee
18	nm0000710		David Raksin
19	nm0000820		Burt Bacharach
20	nm0000823		Angelo Badalame...
21	nm0000927		Irving Berlin
22	nm0000930		Elmer Bernstein
23	nm0000954		Jon Bon Jovi
24	nm0001087		Lee Curreri
25	nm0001168		Bob Dylan

20. Print the actor's name who has worked in as many movies as the number of crew members in the movie titled.

Explanation: We take a movie and count the crew members and remove the respective actors and actress and after that we select the actor's name having

condition that they have worked the same number of movies as the number of crew in a particular movie.

Screenshot:

Data Output			Explain	Messages	Notifications
	primaryname text				
1	Alfred Newman				
2	Miklós Rózsa				
3	Gérard Pirès				
4	George Lucas				
5	Jean-Jacques Ann...				
6	John Barry				
7	Brian De Palma				
8	Ang Lee				
9	Terrence Malick				
10	David Mamet				
11	Joseph L. Mankie...				
12	Billy Wilder				
13	Robert Zemeckis				
14	Jim Abrahams				
15	Percy Adlon				
16	Irwin Allen				
17	Néstor Almendros				
18	Michelangelo Ant...				
19	Roger Avary				
20	Burt Bacharach				
21	Michael Ballhaus				
22	Saul Bass				

Remarks:

- 1) Respective assumption is made of non-available dataset for example
Awards dataset would contain nconst, award name and award year.
- 2) Assuming Movie info has box office collection and budget of the movie.
- 3) For location table we assumed it contained tconst and location_name as
columns