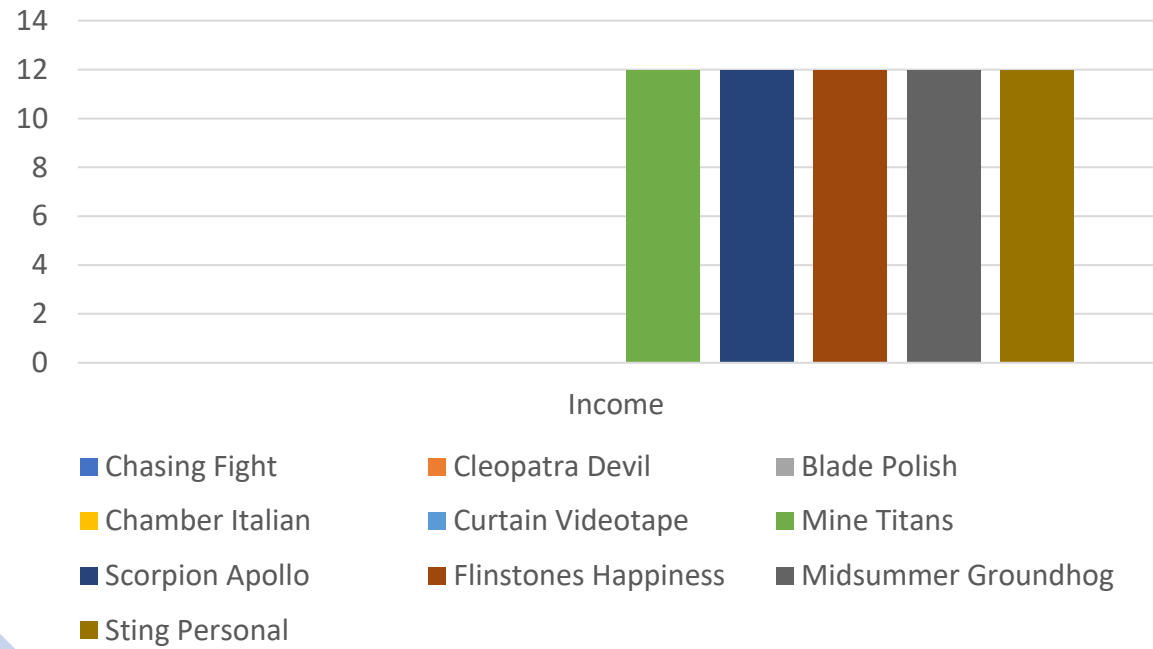# PROJECT: Investigate a Relational Database (dvdrentals)

Alejandra Lopez Joseph

1. We would like to know the 5 movies with the lowest income and the 5 with the highest. Provide a table with the payment received by movie and the AVG of the payment add a new column classifying the movies in two groups depending on the amount of the payment (one between 0 and 6 and other greater than 6) and divide them into 4 levels (first_quarter, second_quarter, third_quarter, and final_quarter) based on the quartiles (25%, 50%, 75%) of the rental duration for movies across all categories.
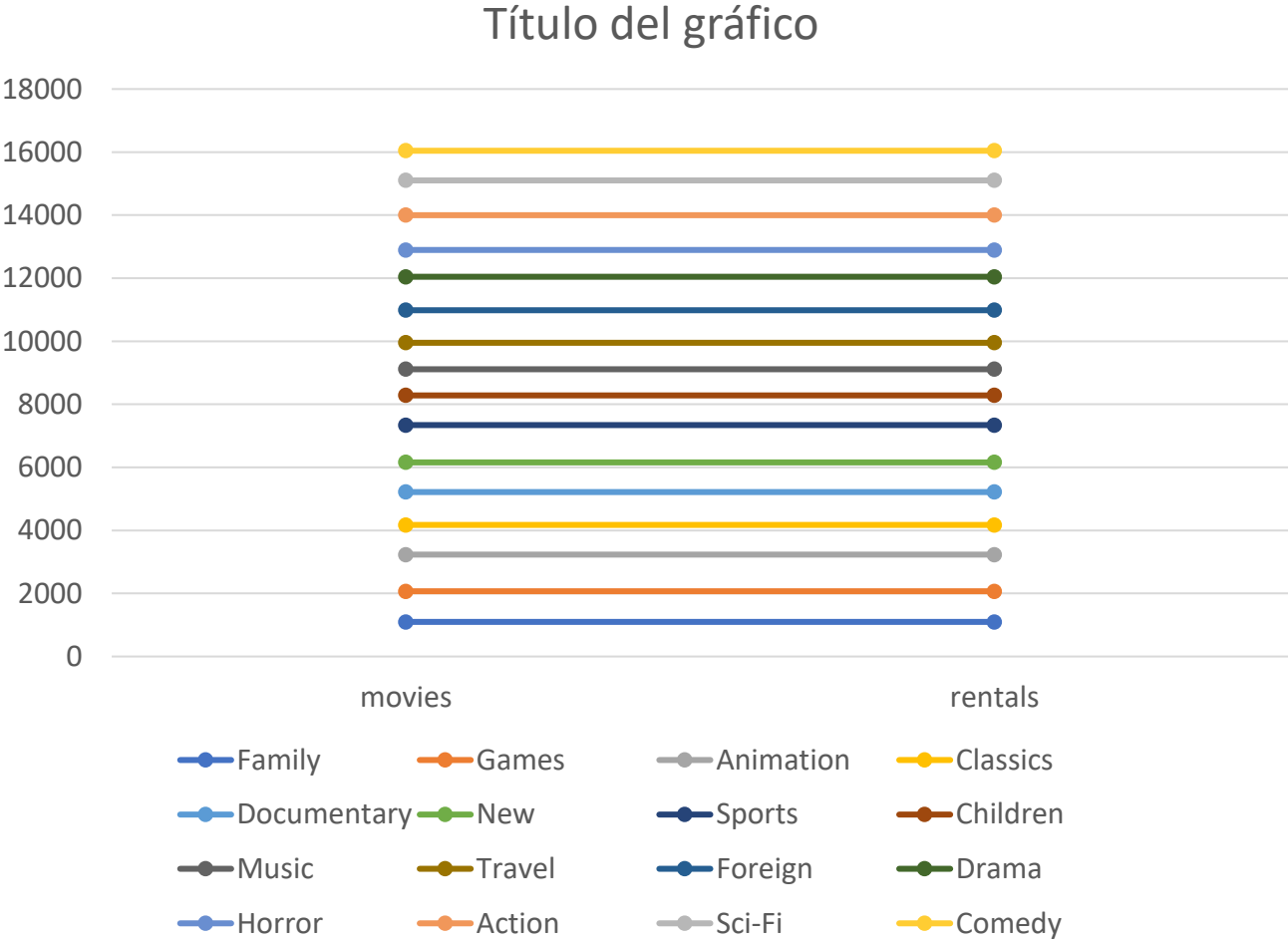

	payment_amt numeric (5,2)	title character varying (255)	avg_payment_amt numeric	rental_duration_q integer	payment_classification text
1	0.00	Chasing Fight	0.00000000000000000000	4	first_group
2	0.00	Cleopatra Devil	0.00000000000000000000	4	first_group
3	0.00	Blade Polish	0.00000000000000000000	1	first_group
4	0.00	Chamber Italian	0.00000000000000000000	3	first_group
5	0.00	Curtain Videotape	0.00000000000000000000	2	first_group

	payment_amt numeric (5,2)	title character varying (255)	avg_payment_amt numeric	rental_duration_q integer	payment_classification text
1	11.99	Mine Titans	11.9900000000000000	4	second_group
2	11.99	Scorpion Apollo	11.9900000000000000	1	second_group
3	11.99	Flintstones Happiness	11.9900000000000000	3	second_group
4	11.99	Midsummer Groundhog	11.9900000000000000	3	second_group
5	11.99	Sting Personal	11.9900000000000000	2	second_group

- The 5 movies with the lowest income, which is 0, and therefore were placed in the first_group are Chasing Fight, Cleopatra Devil, Blade Polish, Chamber Italian and Curtain Videotape.

- On the other side the 5 movies with the highest income were Mine Titans Scorpion Apollo, Flinstones Happiness, Midsummer Groundhog and Sting Personal and they were placed in the second_group.
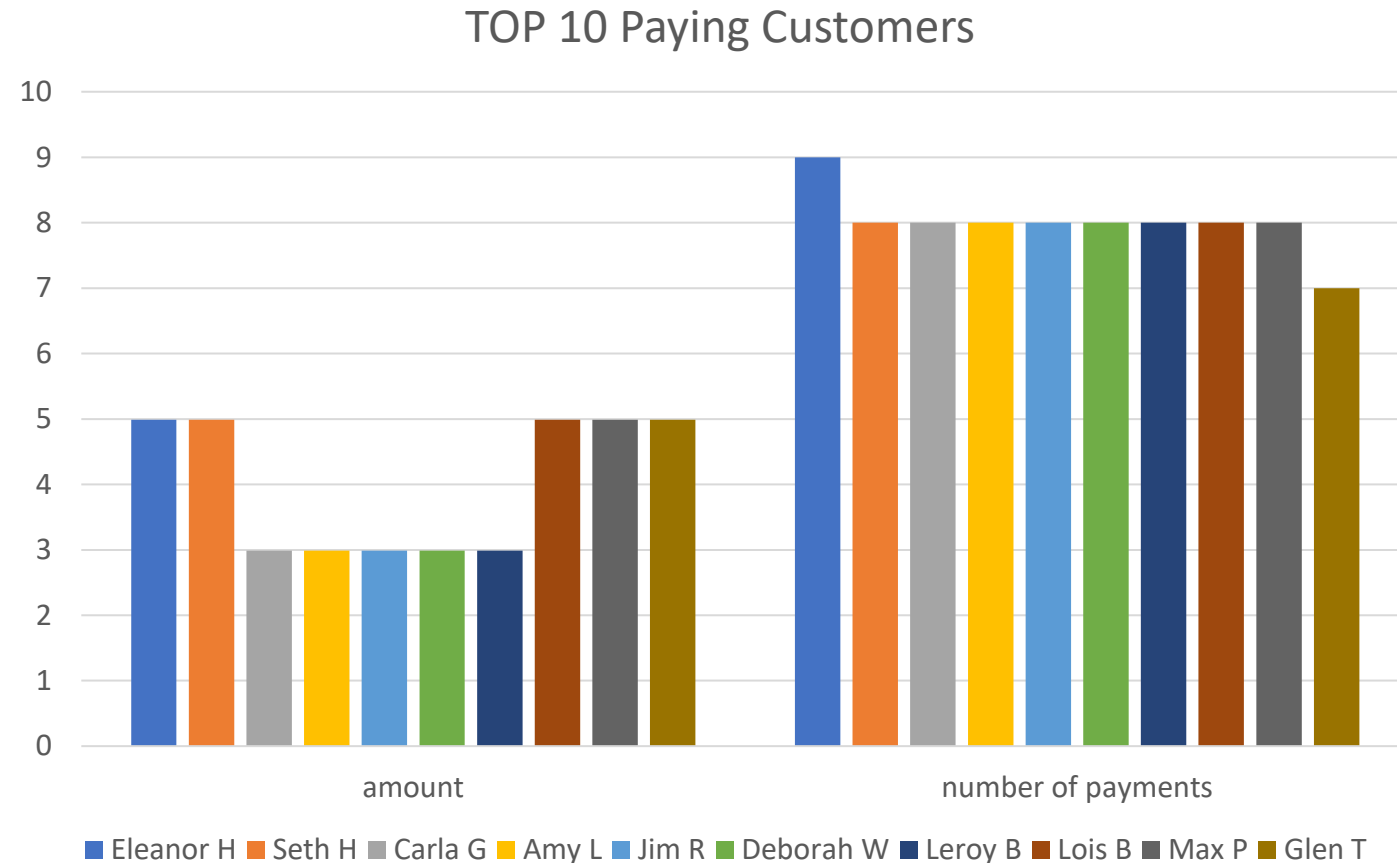
2. We want to know how many movies of each category we have (Animation, Children, Classics, Comedy, Family and Music) and would be helpful if we could know the rental count for each category.

	name character varying (25)	count_movies bigint	count_rental bigint
1	Family	1096	1096
2	Games	969	969
3	Animation	1166	1166
4	Classics	939	939
5	Documentary	1050	1050
6	New	940	940
7	Sports	1179	1179
8	Children	945	945
9	Music	830	830
10	Travel	837	837
11	Foreign	1033	1033
12	Drama	1060	1060
13	Horror	846	846
14	Action	1112	1112
15	Sci-Fi	1101	1101
16	Comedy	941	941

Título del gráfico

- The amount of movies in each category is the same as the number of rentals, that means that we have the same amount of film id´s and rental id´s in each category.

3. We would like to know who were our top 10 paying customers, how many payments they made monthly during 2007, and what was the amount of the monthly payments. Can you write a query to capture the customer's name, month and year of payment, and total payment amount for each month by these top 10 paying customers?

TOP 10 Paying Customers

- We found our top 10 paying customers in 2007, we could see on the chart the amount of the monthly payment and the number of payments by each customer.

4. Finally, we want to make an online rental service for our customers for that we need to know which customers still active and generate a temporary password for their account with the first letter of the name, following for the number of letters of their country, the last name and finishing with the last letter of their name. We need a table with the full name, the email, and the new password.

	full_name text	email character varying (50)	password text
1	Jared Ely	jared.ely@sakilacustomer.org	J9Elyd
2	Mary Smith	mary.smith@sakilacustomer...	M5Smithy
3	Patricia Johns...	patricia.johnson@sakilacust...	P13Johnsona
4	Linda Williams	linda.williams@sakilacusto...	L6Williamsa
5	Barbara Jones	barbara.jones@sakilacusto...	B7Jonesa
6	Elizabeth Brown	elizabeth.brown@sakilacust...	E6Brownh
7	Jennifer Davis	jennifer.davis@sakilacustom...	J13Davisr
8	Maria Miller	maria.miller@sakilacustome...	M10Millera
9	Susan Wilson	susan.wilson@sakilacustom...	S11Wilsonn
10	Margaret Moore	margaret.moore@sakilacust...	M4Mooret
11	Dorothy Taylor	dorothy.taylor@sakilacusto...	D4Taylory
12	Lisa Anderson	lisa.anderson@sakilacusto...	L5Andersona
13	Nancy Thomas	nancy.thomas@sakilacusto...	N5Thomasy
14	Karen Jackson	karen.jackson@sakilacusto...	K6Jacksonn

15	Betty White	betty.white@sakilacustomer...	B13Whitey
16	Helen Harris	helen.harris@sakilacustome...	H5Harrisn
17	Sandra Martin	sandra.martin@sakilacusto...	S14Martina
18	Donna Thomp...	donna.thompson@sakilacus...	D18Thompsona
19	Carol Garcia	carol.garcia@sakilacustome...	C7Garcial
20	Ruth Martinez	ruth.martinez@sakilacusto...	R12Martinezh
21	Sharon Robins...	sharon.robinson@sakilacust...	S8Robinsonn
22	Michelle Clark	michelle.clark@sakilacusto...	M10Clarke
23	Laura Rodrigu...	laura.rodriguez@sakilacusto...	L7Rodrigueza
24	Sarah Lewis	sarah.lewis@sakilacustomer...	S6Lewish
25	Kimberly Lee	kimberly.lee@sakilacustome...	K9Leey
26	Deborah Walker	deborah.walker@sakilacust...	D8Walkerh
27	Jessica Hall	jessica.hall@sakilacustomer...	J29Halla
28	Shirley Allen	shirley.allen@sakilacustome...	S11Alleny
29	Cynthia Young	cynthia.young@sakilacusto...	C5Younga

- We generate password for 599 active customers.