Title Page

- **Title:** DB Assignment 4
- **Your Name:** Kenny Chau
- **Date: 11/2/2024**

Query 1: What is the average length of films in each category? List the results in alphabetic order of categories.

Query finds the average of each film in their respective categories. Join film, film_category, and category to find which film is in which category. Group each average film length by their category and then order the category by letter.

name	avg_film_length
Action	111.6094
Animation	111.0152
Children	109.8000
Classics	111.6667
Comedy	115.8276
Documentary	108.7500
Drama	120.8387
Family	114.7826
Foreign	121.6986
Games	127.8361
Horror	112.4821
Music	113.6471
New	111.1270
Sci-Fi	108.1967
Sports	128.2027
Travel	113.3158

Query 2: Which categories have the longest and shortest average film lengths?

Query creates a subtable where it finds the average length of each film for their respective category. Next, using the subtable, make two queries that find the category and film length. We find the category by using the where statement to find the max and min of the subtable. Union both of these results to find the the longest and shortest average film lengths.

category	film_length
Sports	128.2027
Sci-Fi	108.1967

Query 3: Which customers have rented action but not comedy or classic movies?

Query first finds information about each customer with the where statement, indicating that they must have rented an action movie. Next use the except statement and do another query that finds customers who have either rented a comedy or classic movie. The except statement will eliminate customers that have rented comedy or classic movies, leaving those customers who rented action but not comedy or classic movies.

customer_id	first_name	last_name
487	HECTOR	POINDEXTER
304	DAVID	ROYAL
545	JULIO	NOLAND
451	JIM	REA
439	ALEXANDER	FENNELL
292	MISTY	LAMBERT
456	RONNIE	RICKETTS
529	ERIK	GUILLEN
463	DARRELL	POWER
590	SETH	HANNON
500	REGINALD	KINDER
336	JOSHUA	MARK
527	CORY	MEEHAN
407	DALE	RATCLIFF
423	ALFRED	CASILLAS
361	LAWRENCE	LAWTON
511	CHESTER	BENNER
49	JOYCE	EDWARDS
11	LISA	ANDERSON

Query 4: Which actor has appeared in the most English-language movies.

Query finds the actor's information and counts how many movies they have been in. Use the where statement to find movies whose language was in English. Group the count by actor and then use a having statement to find the actor who has been in the most movies. The subquery is a repeat of the main query to filter out actors who have less than the most in starred movies.

actor_id	first_name	last_name	starred_in
107	GINA	DEGENERES	42

Query 5: How many distinct movies were rented for exactly 10 days from the store where Mike works?

Query finds the count of distinct movies that Mike's place has rented out. Join the tables and use the where statement to filter in rows where the datediff of each rented movie equaled 10 days and where the store id is one, which represents where Mike works.

films
61

Query 6: Alphabetically list actors who appeared in the movie with the largest cast of actors.

Query creates a subtable ActorCast for each movie that tells the size of each cast. Then use another subtable, ActorList to find the movie who had the max size of cast with the where statement. Finally, join the ActorList subtable with the actors, films, and film_actor table and provide the information of each who was in the movie with the max size cast.

first_name	last_name
JULIA	BARRYMORE
VAL	BOLGER
SCARLETT	DAMON
LUCILLE	DEE
WOODY	HOFFMAN
MENA	HOPPER
REESE	KILMER
CHRISTIAN	NEESON
JAYNE	NOLTE
BURT	POSEY
MENA	TEMPLE
WALTER	TORN
FAY	WINSLET
CAMERON	ZELLWEGER
JULIA	ZELLWEGER