

Title Page

- **Title:** DB Assignment 4
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- **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

