

# MOVIE RENTAL DATA ANALYSIS

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### **OBJECTIVE**

Use MySql to find the movies that are most popular and help the business in it growth

#### INTRODUCTION

Movie Rental Data Analysis MovieOnRent is a chain of movie rental stores operating in a certain country. It has a vast collection of movies in DVD and Blue Ray disc formats. The management of the company wants to analyze what kind of movies are most often rented, which genres they belong to, and which actors appeared in them. It will help the management stock up the inventory as per audience's preferences for improved business.

PRESENTATION TITLE

#### **BUSINESS PROBLEMS**

- 1. Display the full names of actors available in the database.
- 2
- i. Display the number of times each first name appears in the database.
- ii. What is the count of actors that have unique first names in the database? Display the first names of all these actors.

3.

- i. Display the number of times each last name appears in the database.
- ii. Display all unique last names in the database.

4.

- i. Display the list of records for the movies with the rating "R".
- ii. Display the list of records for the movies that are not rated "R".
- iii. Display the list of records for the movies that are suitable for audience below 13 years of age.

5.

- i. Display the list of records for the movies where the replacement cost is up to \$11.
- ii. Display the list of records for the movies where the replacement cost is between \$11 and \$20.
- iii. Display the list of records for the all movies in descending order of their replacement costs

- 6. Display the names of the top 3 movies with the greatest number of actors.
- 7. Display the titles of the movies starting with the letters 'K' and 'Q'
- 8. Display the names of all actors who appeared in the film "Agent Truman".
- 9. Identify all the movies categorized as family films.

10.

- i. Display the maximum, minimum, and average rental rates of movies based on their ratings. The output must be sorted in descending order of the average rental rates.
- ii. Display the movies in descending order of their rental frequencies, so the management can maintain more copies of those movies.
- 11. In how many film categories, the difference between the average film replacement cost ((disc DVD/Blue Ray) and the average film rental rate is greater than \$15?

Display the list of all film categories identified above, along with the corresponding average film replacement cost and average film rental rate.

12. Display the film categories in which the number of movies is greater than 70.

- i. Display the number of times each last name appears in the database.
- ii. Display all unique last names in the database.

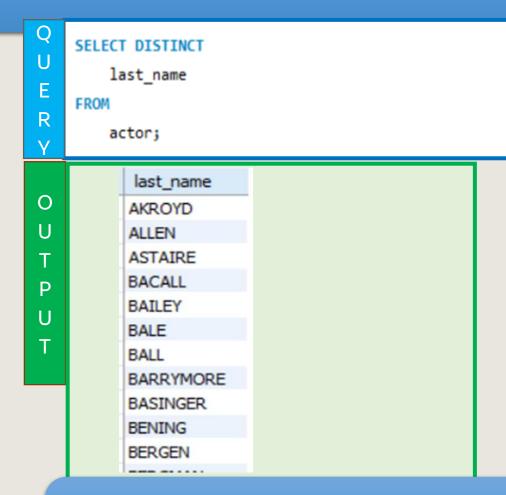
```
SELECT
U last_name, COUNT(*) AS Number_of_occurance

FROM
actor

R GROUP BY last_name
ORDER BY Number_of_occurance DESC;
```

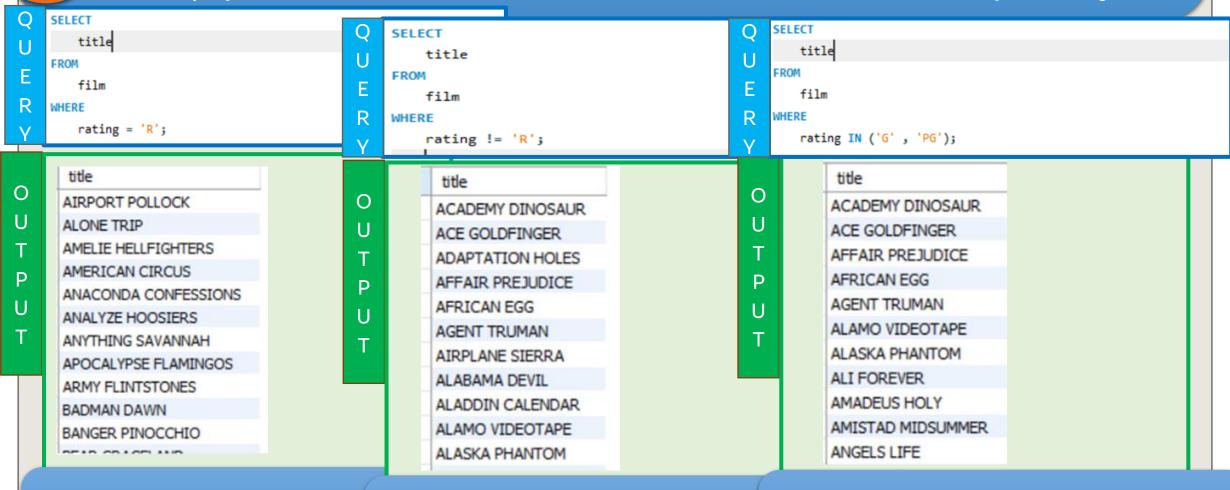
last_name	Number_of_occurance
KILMER	5
NOLTE	4
TEMPLE	4
AKROYD	3
ALLEN	3
BERRY	3
DAVIS	3
DEGENERES	3
GARLAND	3
GUINESS	3
HARRIS	3
	^

KILMER is the last name which occurs the most number of times (5 times)



There are a total of 121 unique last names

- 4
- i. Display the list of records for the movies with the rating "R".
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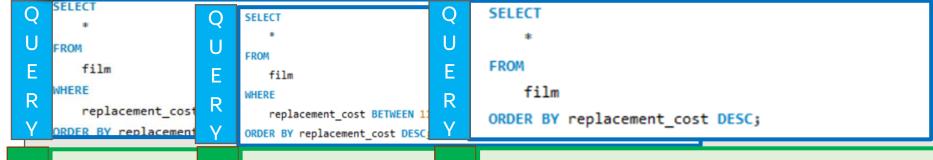
There are a total of 128 movi rated 'R'

There are a total of 805 movies that rated 'R'

There are a total of 372 movies that are suitable for children below 13



- i. Display the list of records for the movies where the replacement cost is up to \$11.
- ii. Display the list of records for the movies where the replacement cost is between \$11 and \$20.
- iii. Display the list of records for the all movies in descending order of their replacement costs



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			U	film_id	title	description	U	film_id	title	description	release_y langu	iage original_langu	a rental_duration	rental_rate	length	replacement_cost	rating	special_features	last_update
film_id	title	description		24	ANALYZE HOOSIERS	A Thoughtful Display of a Explorer And a Pastr		34	ARABIA DOGMA	A Touching Epistle of a Madman And a Mad Cow who must D	2006 1	NULL	6	0.99	62	29.99	NC-17	Commentaries, Deleted Scenes	2006-02-15 05:03:42
15	ALIEN CENTER AMISTAD MIDSUMMER	A Brilliant Drama of a Cat And a A Emotional Character Study of	T	92	BOWFINGER GABLES	A Fast-Paced Yarn of a Waitress And a Compos	T	52	BALLROOM MOCKINGBIRD	A Thrilling Documentary of a Composer And a Monkey who m	2006 1	NULL	6	0.99	173	29.99	G	Commentaries, Deleted Scenes	2006-02-15 05:03:42
633	OCTOBER SUBMARINE	A Taut Epistle of a Monkey And	D	108	BUTCH PANTHER	A Lacklusture Yarn of a Feminist And a Databas	Ъ	81	BLINDNESS GUN	A Touching Drama of a Robot And a Dentist who must Meet a	2006 1	NULL	6	4.99	103	29.99	PG-13	Trailers, Behind the Scenes	2006-02-15 05:03:42
39 42	ARMAGEDDON LOST  ARTIST COLDBLOODED	A Fast-Paced Tale of a Boat An A Stunning Reflection of a Robo		113	CALIFORNIA BIRDS	A Thrilling Yarn of a Database Administrator An	Р	85	BONNIE HOLOCAUST	A Fast-Paced Story of a Crocodile And a Robot who must Fin	2006 1	HULL	4	0.99		29,99		Deleted Scenes	2006-02-15 05:03:42
51	BALLOON HOMEWARD	A Insightful Panorama of a Fore		125	CASSIDY WYOMING	A Intrepid Drama of a Frisbee And a Hunter wh		138	CHARIOTS CONSPIRACY	A Unbelieveable Epistle of a Robot And a Husband who must	2006 1	NULL	5	2.99		29,99		Deleted Scenes, Behind the Scenes	2006-02-15 05:03:42
116	BLADE POLISH CANDIDATE PERDITION	A Thoughtful Character Study of A Brilliant Epistle of a Composer		166	COLOR PHILADELPHIA			157	CLOCKWORK PARADISE	A Insightful Documentary of a Technical Writer And a Feminis	2006 1	HULL	7	0.99		29,99		Trailers, Commentaries, Deleted Scenes, Behind t	
	CATCH AMISTAD PLATOON INSTINCT	A Boring Reflection of a Lumber A Thrilling Panorama of a Man A	T	169 192	CROSSING DIVORCE	A Unbelieveable Panorama of a Pioneer And a A Beautiful Documentary of a Dog And a Robot		163	CLYDE THEORY	A Beautiful Yarn of a Astronaut And a Frisbee who must Ove	2006 1	NULL	4	0.99		29,99		Commentaries, Deleted Scenes, Behind the Scenes	
	COMA HEAD CONTACT ANONYMOUS	A Awe-Inspiring Drama of a Boy A Insightful Display of a A Shar		213	DATE SPEED	A Touching Saga of a Composer And a Moose i		196	CRUELTY UNFORGIVEN	A Brilliant Tale of a Car And a Moose who must Battle a Denti	2006 1	HULL	7	0.99		29.99		Deleted Scenes, Behind the Scenes	2006-02-15 05:03:42
	POTLUCK MIXED	A Beautiful Story of a Dog And a	recinical writer w		DESTINATION JERK	A Beautiful Yarn of a Teacher And a Cat who mu		199	CUPBOARD SINNERS	A Emotional Reflection of a Frisbee And a Boat who must Rea	2006 1	NULL	4	2.99		29,99		Behind the Scenes	2006-02-15 05:03:42
185 746	COWBOY DOOM	A Astounding Drama of a Boy An A Association Drama of a Astro	The state of the s	236	DIVINE RESURRECTION	A Boring Character Study of a Man And a Woma	anizer who mu	224	DESPERATE TRAINSPOTTING	A Epic Yarn of a Forensic Psychologist And a Teacher who mu	2006 1	NULL	7	4.99		29.99		Deleted Scenes	2006-02-15 05:03:42
				247	DOUBLET CHOUSE	ser itt (nid (ste		222	NINT/ LAF	the billion of the shifter	2006	NULL		0.00	117	20.00	10.43		2005 00 45 05 00 40

There a repl

There are 42

The highest replacement cost is 29.99 and movies like Arabia Dogma has the highest replacement cost

#### Identify all the movies categorized as family films.

```
title,name AS CategoryName

FROM
    film f
    INNER JOIN film_category fc ON fc.film_id=f.film_id
    INNER JOIN category c ON c.category_id=fc.category_id

WHERE
    name = 'Family';
```

title	CategoryName
AFRICAN EGG	Family
APACHE DIVINE	Family
ATLANTIS CAUSE	Family
BAKED CLEOPATRA	Family
BANG KWAI	Family
BEDAZZLED MARRIED	Family
BILKO ANONYMOUS	Family
BLANKET BEVERLY	Family

There are 69 such movies

```
Q U E R
```

```
SELECT
    Name, COUNT(title) AS Num_Of_Movies
FROM
    film f
        INNER JOIN
    film_category fc ON f.film_id = fc.film_id
        INNER JOIN
    category c ON c.category_id = fc.category_id
GROUP BY Name
HAVING Num_Of_Movies > 70
ORDER BY Num_Of_Movies DESC;
```

S

0

U

Р

U

Name Num\_Of\_Movies

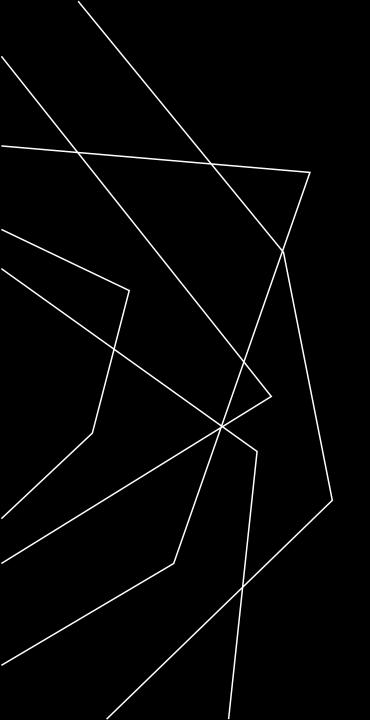
Sports 74

Foreign 73

The sports and Foreign are the only two category which have more than 70 movies

#### **SUMMARY**

- 1. Approximately one-third of the movies are suitable for children below the age of 13
- 2. Sports and Foreign category has most number of movies
- 3. The highest replacement cost is 29.99
- 4. There are 90 movies having replacement cost below 11
- 5. There are around 459 movies replacement cost between \$ 11 to \$ 20
- 6. Most number of movies have replacement cost above \$ 20
- 7. The number of movies in Family category should be increased



# THANK YOU