MID-COURSE PROJECT

MySQL for Data Analysis

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MAVEN ANALYTICS

THE SITUATION

The company's insurance policy is up for renewal and the insurance company's underwriters need some updated information from us before they will issue a new policy.

THE OBJECTIVE

Leverage your SQL skills to extract and analyze data from various tables in the Maven Movies database to answer the underwriters' questions.

Each question can be answered by querying just one table. Part of your job as an Analyst is figuring out which table to use.

1

We will need a list of all staff members, including their first and last names, email addresses, and the store identification number where they work.

```
SELECT
first_name, last_name, email, store_id
FROM
staff ;
```

100% 4:1

Result Grid Filter Rows: Search Export:

first_name	last_name	email	store_id
Mike	Hillyer	Mike.Hillyer@sakilastaff.com	1
Jon	Stephens	Jon.Stephens@sakilastaff.com	2

2

We will need separate counts of inventory items held at each of your two stores.

```sql
SELECT store_id,
COUNT(inventory_id) AS total_inventory
FROM inventory
GROUP BY store_id
```

Result Grid Filter Rows:

store_id	total_inventory
1	2270
2	2311

3

We will need a count of active customers for each of your stores. Separately, please.

```sql
SELECT store_id,
COUNT(customer_id) AS active_customers
FROM customer
WHERE active = 1
GROUP BY store_id
```

Result Grid   Filter Rows:  S

store_id	active_customers
1	318
2	266

4

In order to assess the liability of a data breach, we will need you to provide a count of all customer email addresses stored in the database.

```
SELECT COUNT(*) email
FROM customer
```

Result Grid Filter Rc

email
599

5

Part 1

We are interested in how diverse your film offering is as a means of understanding how likely you are to keep customers engaged in the future. Please provide a count of unique film titles you have in inventory at each store and then provide a count of the unique categories of films you provide.

-- Unique film titles in inventory at each store

```sql
SELECT
    store_id, COUNT(DISTINCT film_id) AS unique_title
FROM
    inventory
GROUP BY store_id
```

Result Grid Filter Rows:

store_id	unique_title
1	759
2	762

5

Part 2

We are interested in how diverse your film offering is as a means of understanding how likely you are to keep customers engaged in the future. Please provide a count of unique film titles you have in inventory at each store and then provide a count of the unique categories of films you provide.

-- Total count of categories we provide

```sql
SELECT
    COUNT(DISTINCT name) AS unique_categorie
FROM
    category
```

Result Grid Filter Rows:

unique_categorie
16

6

We would like to understand the replacement cost of your films. Please provide the replacement cost for the film that is least expensive to replace, the most expensive to replace, and the average of all films you carry

```sql
SELECT
    MAX(replacement_cost) AS most_expensive,
    MIN(replacement_cost) AS least_expesive,
    AVG(replacement_cost) AS avg_cost
FROM
    film
```

Result Grid Filter Rows: Search

most_expensive	least_expesive	avg_cost
29.99	9.99	19.984000

7

We are interested in having you put payment monitoring systems and maximum payment processing restrictions in place in order to minimize the future risk of fraud by your staff. Please provide the average payment you process, as well as the maximum payment you have processed.

```sql
SELECT
    AVG(amount) AS avg_payment,
    MAX(amount) AS max_payment
FROM payment
```

avg_payment	max_payment
4.200667	11.99

8

We would like to better understand what your customer base looks like. Please provide a list of all customer identification values, with a count of rentals they have made all time, with your highest volume customers at the top of the list.

```sql
SELECT
    customer_id, COUNT(inventory_id) customer_total_rental
FROM
    rental
GROUP BY customer_id
ORDER BY customer_total_rental DESC
```

	customer_id	customer_total_rental
	148	46
	526	45
	236	42
	144	42
	75	41

THANK YOU!

Muriel Rosario