FW: Aggregate Functions and Group By SQL

Meredith Dodd <meredith.dodd@woz-u.com>
Mon 5/11/2020 3:46 PM
To: Meredith Dodd <meredith.dodd@woz-u.com>

Meredith Dodd, Ph.D. | Data Science Program Chair and Instructor
meredith.dodd@woz-u.com
o: 480-291-8068
powered by WOZ U
https://woz-u.com

From: Meredith Dodd
Sent: Monday, May 11, 2020 3:46 PM
To: 'meredith.m.dodd@gmail.com' <meredith.m.dodd@gmail.com>
Subject: Aggregate Functions and Group By SQL

```
#Find the maost a video was ever rented for

select max(amount)
from sakila.payment;

# Find the smallest cost a video was ever rented for

select min(amount)
from sakila.payment;

# What is the total profits derived from renting videos?

select sum(amount)
from sakila.payment;

# What is the average video rental price?

select avg(amount)
from sakila.payment;

# How many times has any video been rented?

select count(rental_id)
from sakila.payment;

# How many records are in the payment table, regardless of whether they are complete?

select count(*)
from sakila.payment;

# How many different prices are there for video rentals?
```

```
select count(distinct amount)
from sakila.payment;

# Make it pretty with an alias

select count(distinct amount) as "Number of Prices"
from sakila.payment;

# How does the price differ by film category (genre)? Find the average price by category.

select avg(amount) as AvgPrice, name
from sakila.payment
join sakila.rental using(rental_id)
join sakila.inventory using (inventory_id)
join sakila.film_category using (film_id)
join sakila.category using (category_id)
group by name;

# What if you wanted to then order this by the average price, even when it is grouped? You can do that, too!

select avg(amount) as AvgPrice, name
from sakila.payment
join sakila.rental using(rental_id)
join sakila.inventory using (inventory_id)
join sakila.film_category using (film_id)
join sakila.category using (category_id)
group by name
order by AvgPrice;

# How about the maximum price by category and by state?

select * from address;

select max(amount) as HighestPrice, name, district
from sakila.payment
join sakila.rental using(rental_id)
join sakila.customer using (customer_id)
join sakila.inventory using (inventory_id)
join sakila.film_category using (film_id)
join sakila.category using (category_id)
join sakila.address using (address_id)
group by name, district;

select max(amount) as HighestPrice, name, district
from sakila.payment
join sakila.rental using(rental_id)
join sakila.customer on rental.customer_id = customer.customer_id
join sakila.inventory using (inventory_id)
join sakila.film_category using (film_id)
join sakila.category using (category_id)
join sakila.address using (address_id)
group by name, district;

# Which genere is most popular?
```

```
select name, count(name) as GenreFrequency
from sakila.payment
join sakila.rental using(rental_id)
join sakila.inventory using (inventory_id)
join sakila.film_category using (film_id)
join sakila.category using (category_id)
group by name
having GenreFrequency;

# Want to see better which one is highest/lowest?

select name, count(name) as GenreFrequency
from sakila.payment
join sakila.rental using(rental_id)
join sakila.inventory using (inventory_id)
join sakila.film_category using (film_id)
join sakila.category using (category_id)
group by name
having GenreFrequency
order by GenreFrequency;

# Which genre has the most variability in pricing?

select name, count(distinct amount) as PriceVariability
from sakila.payment
join sakila.rental using(rental_id)
join sakila.inventory using (inventory_id)
join sakila.film_category using (film_id)
join sakila.category using (category_id)
group by name
having PriceVariability
order by PriceVariability;
```

Meredith Dodd, Ph.D. | Data Science Program Chair and Instructor
meredith.dodd@woz-u.com
o: 480-291-8068
powered by WOZ U
https://woz-u.com