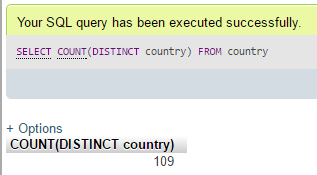
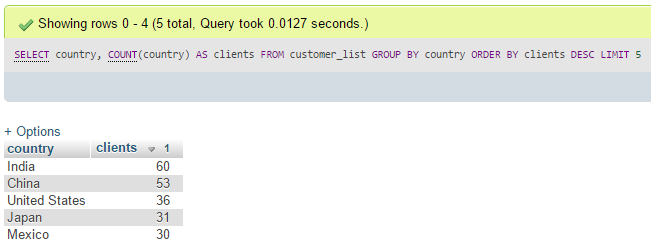
**Write queries (5 points each) against the Sakila database to answer the following requests:**

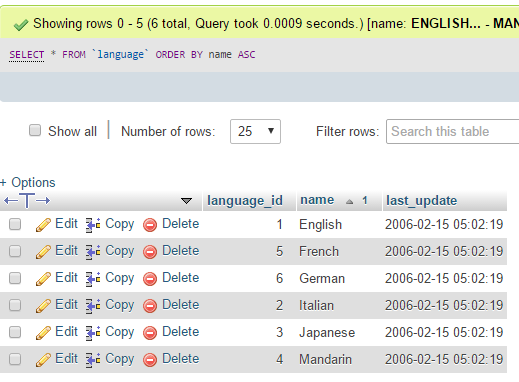
1. How many distinct countries are there?



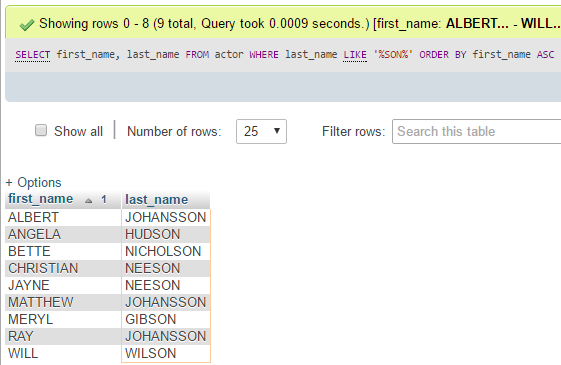
1. Find out the top 5 countries with most number of clients.



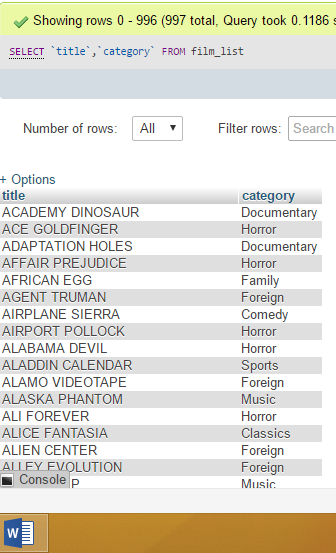
1. What are the names of all the languages in the database (sorted alphabetically)?



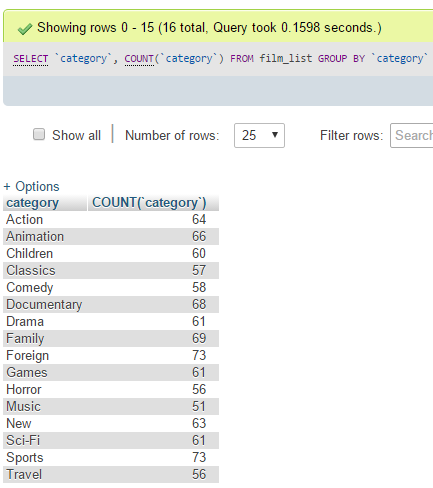
1. Return the full names (first and last) of actors with “SON” in their last name, ordered by their first name.



1. Create a list of films and their corresponding categories.



1. Create a list of categories and the number of films for each category.



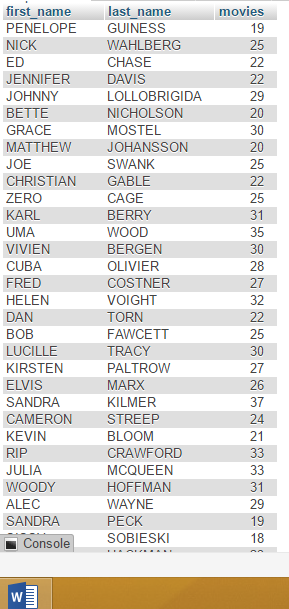
1. Create a list of actors and the number of movies by each actor.

[SELECT](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) actor.first\_name,actor.last\_name,[COUNT](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_count)(film\_actor.actor\_id) AS movies

FROM film\_actor JOIN actor

ON film\_actor.actor\_id=actor.actor\_id

GROUP BY film\_actor.actor\_id



1. Find the number of English films in the category of ‘Documentary’

[SELECT](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) [COUNT](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_count)(\*) FROM `film`

JOIN language ON film.language\_id=language.language\_id

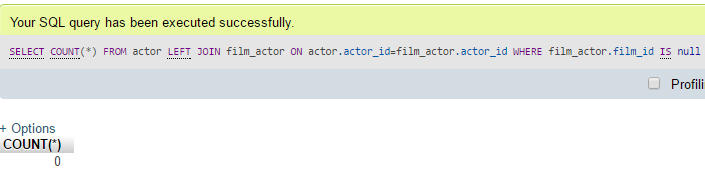
JOIN film\_category ON film\_category.film\_id=film.film\_id

JOIN category ONcategory.category\_id=film\_category.category\_id

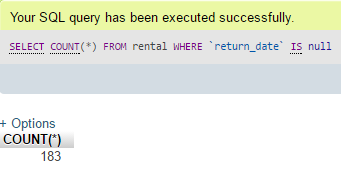
WHERE language.name='English'[AND](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/logical-operators.html#operator_and) category.name='Documentary'



1. How many actors have not acted in any films?



1. How many films are out on rent?

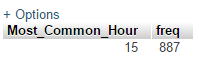


1. What is the most common hour when people pay for a dvd rental?

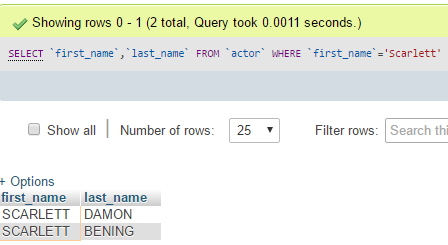
[SELECT](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) hour AS Most\_Common\_Hour, [COUNT](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_count)(hour)AS freq

FROM ([SELECT](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) EXTRACT(HOUR FROM `payment\_date`)AS hour FROM `payment`) AS hours

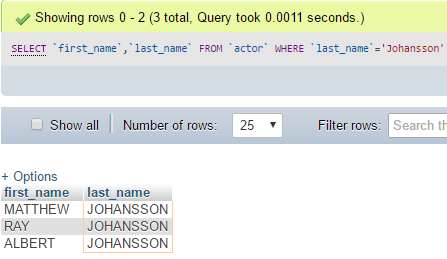
GROUP BY hour ORDER BY freq DESC LIMIT 1



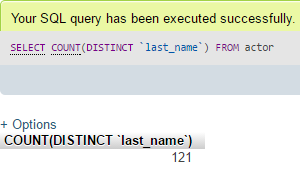
1. Which actors have the first name ‘Scarlett’?



1. Which actors have the last name ‘Johansson’



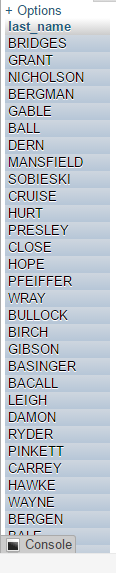
1. How many distinct actors last names are there?



1. Which last names are not repeated?

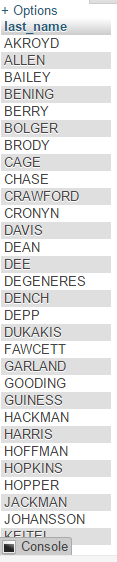
[SELECT](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) last\_name FROM

([SELECT](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) last\_name,[COUNT](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_count)(last\_name)AS times FROM actor GROUP BY last\_name)AS last\_names WHERE times=1



1. Which last names appear more than once?

[SELECT](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) last\_name FROM ([SELECT](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) last\_name,[COUNT](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_count)(last\_name)AS times FROM actor GROUP BY last\_name)AS last\_names WHERE times>1



1. Which actor has appeared in the most films?

[SELECT](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) actor.first\_name,actor.last\_name,[COUNT](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_count)(film\_actor.actor\_id)AS appeared FROM film\_actor JOIN actor ON actor.actor\_id=film\_actor.actor\_id GROUP BY film\_actor.actor\_id ORDER BY appeared DESC LIMIT 1

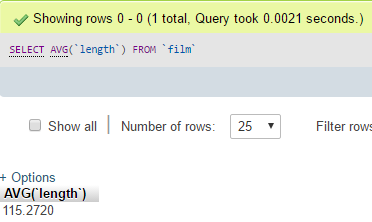


1. When is ‘Academy Dinosaur’ due?

[select](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) rental\_date, rental\_date + [interval](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/comparison-operators.html#function_interval) ([select](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) rental\_duration from film where film\_id = 1) day as due\_date from rental where rental\_id = ([select](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) rental\_id from rental order byrental\_id desc limit 1)



1. What is that average running time of all the films in the sakila DB?



1. What is the average running time of films by category?

[select](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) category.name, [avg](http://127.0.0.1:81/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_avg)(length) from film

join film\_category using (film\_id)

join category using (category\_id) group by category.name

