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| Sakila Database Exercise Book |
| module 8 – databases |

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## Module 8 – Databases

## Exercises Introduction

This Exercise Book makes use of the pre-loaded **Sakila** database which comes with your **MySQL** installation.

These exercises should provide a good test for your knowledge of Structured Query Language (SQL). Please work through this book at your own pace: it is more important that you use this book to enhance your SQL abilities than to speed through it as fast as you can without retaining anything.

You may be tested on some of this material at the end of the week, so please bear this in mind when completing each Exercise.

You do not need to store the answers to each Exercise in this book, but you are free to use it as an extension of your notes, if you wish.

Sakila database Exercises

Each Exercise should return at least one record, according to its individual specification. These exercises get progressively more difficult as they progress.

1. Select all Actors from the table.

select \* from actor;

1. Find the actor with the first name “John”.

select \* from actor where first\_name = 'John';

1. Find all actors with the surname “Neeson”.

select \* from actor where last\_name = 'Neeson';

1. Find all actors with Id numbers divisible by 10.
2. What is the description of the movie with ID of 100?

select description from film where film\_id = 100;

1. Find every movie with a rating of “R”.

select \* from film where rating = 'R';

1. Find every movie except those with a rating of “R”.

select \* from film where rating != 'R';

1. Find the 10 shortest movies.

select \* title, length from film order by length asc limit 10;

1. Now return only the movie titles.

select title from film;

1. Find all movies with Deleted Scenes.

select \* from film where special\_features = 'Deleted Scenes';

1. Which last names are not repeated?

select distinct last\_name from actor;

1. Which last names appear more than once?

select last\_name, count(\*) from actor group by last\_name having count(\*) > 1;

1. Which actor has appeared in the most films?
2. Is ‘Academy Dinosaur’ available for rent from Store 1?

select \* from inventory where film\_id = 1;

1. When is ‘Academy Dinosaur’ due?

select \* from rental where inventory\_id = 1;

2005-08-30 22:26:43

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

select avg(length) from film;

1. What is the average running time of films by category?
2. How many movies have Robots in them?
3. Find the movie(s) with the longest runtime.

select title, length from film order by length desc limit 5;

1. Count how many movies were released in 2010.

SELECT COUNT(title) FROM film WHERE release\_year = 2010;

1. Find the titles of all horror movies.
2. Return the full name of the staff member – in a column named full\_name – with the ID of 1.

SELECT staff\_id, first\_name + ' ' + last\_name AS Fullname from staff where staff\_id = 1;

1. Retrieve all movies that Fred Costner has appeared in.

select film\_info from actor\_info where first\_name = 'Fred' AND last\_name = 'Costner';

1. Find out which location has the most copies of BUCKET BROTHERHOOD.

select film\_id, title from film where title = 'BUCKET BROTHERHOOD';

SELECT \* from inventory where film\_id = 103;

select \* from store where store\_id = 1 OR 2;

select \* from address where address\_id = 1 OR 2;

1. How many distinct countries are there?

select distinct count(country) from country;

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

select name from language order by name asc;

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

SELECT actor\_id, first\_name + ' ' + last\_name AS Fullname from actor where last\_name LIKE '%son' order by first\_name asc;

1. Create a list of categories and the number of films for each category.
2. Create a list of actors and the number of movies by each actor.