

# Trabajo consultas SQL

Jaime García Lozano

10 de abril de 2023

```
[6]: import mysql.connector
import pandas as pd
import warnings
warnings.filterwarnings('ignore')
```

```
[2]: config = {
    'user': 'root',
    'password': 'hola',
    'host': '127.0.0.1', # lo mismo que escribir local host
    'database': 'sakila',
    'port': 3306,
    'raise_on_warnings': True
}
```

```
[9]: def run_query(query):
    cnx = mysql.connector.connect(**config)
    results = pd.read_sql_query(query, cnx)
    return(results)
```

## 1. Consultas

### 1. ¿Quién es el empleado con más ventas?

```
[13]: query="""SELECT staff.first_name, staff.last_name,COUNT(staff.staff_id) AS `
    ↪`ventas`
    FROM staff JOIN rental on staff.staff_id=rental.staff_id
    GROUP BY staff.staff_id ORDER BY `ventas` DESC"""

data=run_query(query)
data
```

	first_name	last_name	ventas
0	Mike	Hillyer	8040
1	Jon	Stephens	8004

Tabla 1

## 2. ¿Quién es el empleado con más ingresos generados?

```
[14]: query="""SELECT staff.first_name, staff.last_name,SUM(payment.amount) AS
      ↳`ingresos`
      FROM staff JOIN payment on staff.staff_id=payment.staff_id
      GROUP BY staff.staff_id ORDER BY `ingresos` DESC"""
data = run_query(query)
data
```

	first_name	last_name	ingresos
0	Jon	Stephens	33927.04
1	Mike	Hillyer	33489.47

Tabla 2

## 3. ¿Quién es el empleado que más clientes (diferentes) ha tratado?

```
[15]: query="""SELECT staff.first_name, staff.last_name, COUNT(DISTINCT(rental.
      ↳customer_id)) AS `clientes`
      FROM staff INNER JOIN rental on staff.staff_id=rental.staff_id
      GROUP BY staff.staff_id ORDER BY `clientes` DESC"""
data = run_query(query)
data
```

	first_name	last_name	clientes
0	Mike	Hillyer	599
1	Jon	Stephens	599

Tabla 3

## 4. Mostrar el inventario de cada tienda, es decir, el número de copias por películas. Necesitamos la siguiente información: Título de la película, Tienda, y N° de Copias

```
[17]: query="SELECT film.title, inventory.store_id, COUNT(inventory.film_id) AS
      ↳`cantidad` FROM film JOIN inventory on film.film_id=inventory.film_id
      ↳GROUP BY inventory.store_id, film.title ORDER BY film.title"
data = run_query(query)
data[:20]
```

	title	store_id	cantidad
0	ACADEMY DINOSAUR	1	4
1	ACADEMY DINOSAUR	2	4
2	ACE GOLDFINGER	2	3
3	ADAPTATION HOLES	2	4
4	AFFAIR PREJUDICE	1	4
5	AFFAIR PREJUDICE	2	3
6	AFRICAN EGG	2	3
7	AGENT TRUMAN	1	3
8	AGENT TRUMAN	2	3
9	AIRPLANE SIERRA	1	2
10	AIRPLANE SIERRA	2	3
11	AIRPORT POLLOCK	2	4
12	ALABAMA DEVIL	1	3
13	ALABAMA DEVIL	2	2
14	ALADDIN CALENDAR	1	4
15	ALADDIN CALENDAR	2	3
16	ALAMO VIDEOTAPE	1	4
17	ALAMO VIDEOTAPE	2	3
18	ALASKA PHANTOM	1	3
19	ALASKA PHANTOM	2	4

Tabla 4

##### 5. ¿Quién es el empleado con más ventas en 2005 y 2006?

```
[18]: query="""SELECT staff.first_name, staff.last_name,COUNT(staff.staff_id) AS_
      ↪`ventas`
      FROM staff JOIN rental on staff.staff_id=rental.staff_id
      WHERE rental.rental_date>= '2005/01/01' AND rental.rental_date<=
      ↪'2006/01/01'
      GROUP BY staff.staff_id ORDER BY `ventas` DESC """
data = run_query(query)
data
```

	first_name	last_name	ventas
0	Mike	Hillyer	7955
1	Jon	Stephens	7907

Tabla 5: 2005

```
[19]: query="""SELECT staff.first_name, staff.last_name,COUNT(staff.staff_id) AS_
      ↪`ventas`
      FROM staff JOIN rental on staff.staff_id=rental.staff_id
      WHERE rental.rental_date>= '2006/01/01'
```

```
GROUP BY staff.staff_id ORDER BY `ventas` DESC """
```

```
data = run_query(query)
data
```

	first_name	last_name	ventas
0	Jon	Stephens	97
1	Mike	Hillyer	85

Tabla 6: 2006

## 6. ¿Quién es el empleado con más ingresos generados en 2005?

```
[20]: query="""SELECT staff.first_name, staff.last_name,SUM(payment.amount) AS_
      ↳`ingresos`
      FROM staff JOIN payment on staff.staff_id=payment.staff_id
      WHERE payment.payment_date>='2005/01/01' AND payment.
      ↳payment_date<= '2006/01/01'
      GROUP BY staff.staff_id ORDER BY `ingresos` DESC"""
```

```
data = run_query(query)
data
```

	first_name	last_name	ingresos
0	Jon	Stephens	33646.95
1	Mike	Hillyer	33255.38

Tabla 7

## 7. ¿Quién es el empleado que más clientes (diferentes) ha tratado en 2006 de EEUU?

```
[22]: query="""SELECT staff.first_name, staff.last_name, COUNT(DISTINCT(rental.
      ↳customer_id)) AS `clientes`
      FROM staff INNER JOIN rental on staff.staff_id=rental.staff_id
      INNER JOIN customer on rental.customer_id=customer.customer_id
      INNER JOIN address on customer.address_id=address.address_id
      INNER JOIN city on address.city_id=city.city_id
      INNER JOIN country on city.country_id=country.country_id
      WHERE rental.rental_date>='2006/01/01' AND country.
      ↳country='United States'
      GROUP BY staff.staff_id ORDER BY `clientes` DESC """
```

```
data = run_query(query)
data
```

	first_name	last_name	clientes
0	Mike	Hillyer	6
1	Jon	Stephens	4

Tabla 8

#### 8. ¿En qué película han participado más actores?

```
[24]: query="""SELECT film.title, COUNT(DISTINCT(actor.actor_id)) AS `nº actores`
        FROM film INNER JOIN film_actor on film.film_id= film_actor.
        ↳film_id
        JOIN actor on film_actor.actor_id=actor.actor_id
        GROUP BY film.title ORDER BY COUNT(actor.actor_id) DESC"""

data = run_query(query)
data[:5]
```

	title	nº actores
0	LAMBS CINCINATTI	15
1	DRACULA CRYSTAL	13
2	CRAZY HOME	13
3	CHITTY LOCK	13
4	MUMMY CREATURES	13

Tabla 9

#### 9. ¿Cuál es el actor con mayor número de participaciones en películas?

```
[25]: query="""SELECT CONCAT(actor.first_name,' ', actor.last_name) AS `actor`,
        ↳COUNT(DISTINCT(film_actor.film_id)) AS `nº películas`
        FROM actor INNER JOIN film_actor on actor.actor_id= film_actor.
        ↳actor_id
        JOIN film on film_actor.film_id=film.film_id
        GROUP BY actor.actor_id ORDER BY COUNT(film.film_id) DESC"""

data = run_query(query)
data[:5]
```

	actor	nº películas
0	GINA DEGENERES	42
1	WALTER TORN	41
2	MARY KEITEL	40
3	MATTHEW CARREY	39
4	SANDRA KILMER	37

Tabla 10

10. ¿Quién es el cliente que más películas diferentes ha alquilado?

```
[27]: query="""SELECT CONCAT(customer.first_name,' ',customer.last_name) AS_
      ↳`name`, COUNT(inventory.film_id) AS `nº películas`
      FROM customer INNER JOIN rental on customer.customer_id=rental.
      ↳customer_id
      INNER JOIN inventory on rental.inventory_id=inventory.inventory_id
      GROUP BY `name` ORDER BY `nº películas` DESC"""

data = run_query(query)
data[:5]
```

	name	nº películas
0	ELEANOR HUNT	46
1	KARL SEAL	45
2	MARCIA DEAN	42
3	CLARA SHAW	42
4	TAMMY SANDERS	41

Tabla 11