

2. Indique cuáles son las relaciones uno a uno, uno a muchos, muchos a muchos

Relaciones 1 - 1

NO se encontraron

Relaciones M - n

Film - Category

Film - Actor

Film - Language

Relaciones 1 - N

Film - Inventory

Store - Inventory

Inventory - Rental

Rental - Payment

Customer - Payment

Customer - Rental

Staff - Payment

Staff - Rental

Store - Customer

Address - Customer

Address - Store

Staff - Store (Manager_staff_id)

Store - Staff

Country - City

City - Address

3. Cuales son las claves primarias y foráneas de las tablas: Actor, Film, Customer, Staff

ACTOR

PK actor_id

Film

PK film_id

FK language_id

FK language_language_id

Customer

PK customer_id

FK store_id

FK address_id

Staff

PK staff_id

FK address_id

FK store_id

4 Contar y consultar todos los actores que existen en la BD usando sentencias SQL.

`select count(actor_id) from actor;`

The screenshot displays two instances of SQL Enterprise Manager. The top instance shows a query window with the following SQL code:

```
1 USE SAKILA;  
2  
3 select count(actor_id) from actor;  
4  
5
```

The results grid shows a single row with the value 200.

The bottom instance shows a query window with the following SQL code:

```
1 USE SAKILA;  
2 /*P4*/  
3 select count(actor_id) from actor;  
4 select * from actor;  
5
```

The results grid shows a table with 15 rows of actor data:

actor_id	first_name	last_name	last_update
1	PENELOPE	GUINESS	2006-02-15 04:34:33
2	NICK	WAHLBERG	2006-02-15 04:34:33
3	ED	CHASE	2006-02-15 04:34:33
4	JENNIFER	DAVIS	2006-02-15 04:34:33
5	JOHNNY	LOLLOBRIGIDA	2006-02-15 04:34:33
6	BETTE	NICHOLSON	2006-02-15 04:34:33
7	GRACE	MOSTEL	2006-02-15 04:34:33
8	MATTHEW	JOHANSSON	2006-02-15 04:34:33
9	JOE	SWANK	2006-02-15 04:34:33
10	CHRISTIAN	GABLE	2006-02-15 04:34:33
11	ZERO	CAGE	2006-02-15 04:34:33
12	KARL	BERRY	2006-02-15 04:34:33
13	UMA	WOOD	2006-02-15 04:34:33
14	VIVIEN	BERGEN	2006-02-15 04:34:33
15	CUBA	OLIVIER	2006-02-15 04:34:33

The output window shows the execution of the second query, returning 20 rows.

5 Consultar cuáles actores participan en las películas ACADEMY DINOSAUR, BERETS AGENT

```
select
    f.title as "NOMBRE DE LA PELICULA", a.first_name AS "NOMBRE", a.last_name AS
"APELLIDO"
from
    film f inner join film_actor f_a on f.film_id = f_a.film_id
    inner join actor a on f_a.actor_id = a.actor_id
where
    f.title = "ACADEMY DINOSAUR" or f.title = "BERETS AGENT";
```

The screenshot shows the SQL Developer interface. The query editor contains the following SQL code:

```
4 select * from actor;
5
6 /* 5 Consultar cuáles actores participan en las películas ACADEMY DINOSAUR, BERETS
7 AGENT*/
8 select
9     f.title as "NOMBRE DE LA PELICULA", a.first_name AS "NOMBRE", a.last_name AS "APELLIDO"
10 from
11     film f inner join film_actor f_a on f.film_id = f_a.film_id
12     inner join actor a on f_a.actor_id = a.actor_id
13 where
14     f.title = "ACADEMY DINOSAUR" or f.title = "BERETS AGENT";
15
```

The Results window displays the following data:

NOMBRE DE LA PELICULA	NOMBRE	APELLIDO
ACADEMY DINOSAUR	PENELOPE	GUINESS
ACADEMY DINOSAUR	CHRISTIAN	GABLE
ACADEMY DINOSAUR	LUCILLE	TRACY
ACADEMY DINOSAUR	SANDRA	PECK

The Action Output window shows the execution history:

#	Time	Action	Message	Duration / Fetch
2	08:41:24	select f.title, a.first_name, a.last_name from film f inner join film_actor f_a on f.film_id = f...	20 row(s) returned	0.016 sec / 0.000 sec
3	08:45:47	select f.title as "NOMBRE DE LA PELICULA", a.first_name, a.last_name from film f inn...	20 row(s) returned	0.000 sec / 0.000 sec
4	08:46:30	select f.title as "NOMBRE DE LA PELICULA", a.first_name AS "NOMBRE", a.last_na...	20 row(s) returned	0.000 sec / 0.000 sec

6 Consultar en cuáles películas ha participado KARL BERRY y cual es la categoría de dichas películas.

select

f.title as Titulo, c.name as Categoria

from

actor a inner join film_actor f_a on a.actor_id = f_a.actor_id

inner join film f on f_a.film_id = f.film_id

inner join film_category f_c on f.film_id = f_c.film_id

inner join category c on f_c.category_id = c.category_id

where

a.first_name = "KARL" and a.last_name = "BERRY";

The screenshot shows a SQL IDE window with a query editor and a results pane. The query editor contains the following SQL code:

```
14 /*P6*/
15 select
16     f.title as Titulo, c.name as Categoria
17 from
18     actor a inner join film_actor f_a on a.actor_id = f_a.actor_id
19     inner join film f on f_a.film_id = f.film_id
20     inner join film_category f_c on f.film_id = f_c.film_id
21     inner join category c on f_c.category_id = c.category_id
22 where
23     a.first_name = "KARL" and a.last_name = "BERRY";
24
```

The results pane displays a table with two columns: Titulo and Categoria. The table contains the following data:

Titulo	Categoria
ALLEY EVOLUTION	Foreign
ALONE TRIP	Music
ARABIA DOGMA	Horror
ARIZONA BANG	Classics
BOUND CHEAPER	Classics
BOWFINGER GABLES	Horror
BUNCH MINDS	Drama

The bottom of the screenshot shows the Windows taskbar with the time 5:36 p. m. and date 29/11/2021.

7. Consultar el costo promedio de (replacement_cost) para las películas cuya categoría sea Drama.

select

```
sum(f.replacement_cost) as "TOTAL COSTOS DE REMPLAZO",  
count(f.replacement_cost) as "CANTIDAD DE REGISTROS",  
sum(f.replacement_cost)/count(f.replacement_cost) as "PROMEDIO COSTOS DE  
REEMPLAZO",  
c.name as "NOMBRE DE LA CATEGORIA"
```

from

```
film f inner join film_category f_c on f.film_id = f_c.film_id  
inner join category c on f_c.category_id = c.category_id  
where c.name = "drama";
```

The screenshot shows a database management tool interface. At the top, there's a tab labeled 'tallerBD' and a search bar. Below the search bar, a SQL query is entered in a text area. The query is as follows:

```
/* 7 Consultar el costo promedio de (replacement_cost) para las películas cuya  
categoría sea Drama*/  
select  
    sum(f.replacement_cost) as "TOTAL COSTOS DE REMPLAZO",  
    count(f.replacement_cost) as "CANTIDAD DE REGISTROS",  
    sum(f.replacement_cost)/count(f.replacement_cost) as "PROMEDIO COSTOS DE REMPLAZO",  
    c.name as "NOMBRE DE LA CATEGORIA"  
from  
    film f inner join film_category f_c on f.film_id = f_c.film_id  
    inner join category c on f_c.category_id = c.category_id  
    where c.name = "drama";
```

Below the query, there's a 'Result Grid' section. It shows a table with the following data:

	TOTAL COSTOS DE REEMPLAZO	CANTIDAD DE REGISTROS	PROMEDIO COSTOS DE REEMPLAZO	NOMBRE DE LA CATEGORIA
▶	1307.38	62	21.086774	Drama

At the bottom, there's an 'Output' section. It shows a table with the following data:

#	Time	Action	Message	Duration / Fetch
4	12:36:07	select sum(f.replacement_cost) as "TOTAL COSTOS DE REMPLAZO", count(f...	Error Code: 1064. You have an error in your SQL syntax; check the manual that c...	0.000 sec
5	12:36:17	select sum(f.replacement_cost) as "TOTAL COSTOS DE REMPLAZO", count(f...	1 row(s) returned	0.015 sec / 0.000 sec

The bottom of the screenshot shows a Windows taskbar with the date and time: 12:51 p. m. 1/12/2021.

8. Consultar el total de ventas de cada store por categoría de película.

select

```
i.store_id as "N° TIENDA",  
sum(p.amount) as "MONTO TOTAL",  
c.name as GENERO
```

from

```
category c inner join film_category f_c on c.category_id = f_c.category_id  
inner join film f on f.film_id = f_c.film_id  
inner join inventory i on i.film_id = f.film_id  
inner join rental r on r.inventory_id = i.inventory_id  
inner join payment p on p.rental_id = r.rental_id  
group by  
c.name  
order by i.store_id
```

;

The screenshot shows a SQL Developer window titled "tallerBD" with a query editor and a results grid. The query is as follows:

```
select  
  i.store_id as "N° TIENDA",  
  sum(p.amount) as "MONTO TOTAL",  
  c.name as GENERO  
from  
  category c inner join film_category f_c on c.category_id = f_c.category_id  
  inner join film f on f.film_id = f_c.film_id  
  inner join inventory i on i.film_id = f.film_id  
  inner join rental r on r.inventory_id = i.inventory_id  
  inner join payment p on p.rental_id = r.rental_id  
group by  
  c.name  
order by i.store_id  
;
```

The results grid shows the following data:

N° TIENDA	MONTO TOTAL	GENERO
1	4375.85	Action
1	4656.30	Animation
1	3655.55	Children
1	3639.59	Classics
1	4383.58	Comedy
1	4217.52	Documentary
1	4587.39	Drama

The bottom of the window shows the "Output" tab with a message: "0 row(s) affected" and a duration of "0.000 sec". The system tray at the bottom indicates the time is 2:35 p. m. on 30/11/2021.

9. Contar todos los clientes existentes por País

select

```
co.country_id as "ID DEL PAIS",
count(co.country_id) as "Nº CLIENTES POR PAIS",
co.country as "NOMBRE DEL PAIS"
```

from

```
country co inner join city ci on co.country_id = ci.country_id
inner join address ad on ci.city_id = ad.city_id
inner join customer cu on ad.address_id = cu.address_id
group by co.country_id;
```

The screenshot shows a database management tool interface with a SQL editor and a results grid. The SQL editor contains a query that joins inventory, film, film_category, and category tables, and then counts the number of customers per country. The results grid displays the output of this query, showing columns for country ID, country name, and the number of customers. The results are sorted by the number of customers in descending order.

SQL Query:

```
43 inner join inventory i on s.store_id = i.store_id
44 inner join film f on i.film_id = f.film_id
45 inner join film_category f_c on f.film_id = f_c.film_id
46 inner join category c on f_c.category_id = c.category_id
47 ;
48
49
50 • select
51 co.country_id as "ID DEL PAIS",
52 co.country as "NOMBRE DEL PAIS",
53 count(co.country_id) as "Nº CLIENTES POR PAIS"
54 from
```

Results Grid:

ID DEL PAIS	NOMBRE DEL PAIS	Nº CLIENTES POR PAIS
1	Afghanistan	1
2	Algeria	3
3	American Samoa	1
4	Angola	2
5	Anguilla	1
6	Argentina	13
7	Armenia	1
9	Austria	3
10	Azerbaijan	2
11	Bahrain	1
12	Bangladesh	3
13	Belarus	2
14	Bolivia	2
15	Brazil	28
16	Brunei	1
17	Bulgaria	2
18	Cambodia	2
19	Cameroon	2

Action Output:

#	Time	Action	Message	Duration / Fetch
1	19:53:58	select co.country_id as "ID DEL PAIS", count(co.country_id) as "Nº CLIENTES PO...	108 row(s) returned	0.000 sec / 0.000 sec
2	20:29:39	select co.country_id as "ID DEL PAIS", co.country as "NOMBRE DEL PAIS", co...	108 row(s) returned	0.000 sec / 0.000 sec

8:29 p. m.
29/11/2021

10 . Crear una tabla temporal que contenga las películas que cada cliente ha alquilado.

```
CREATE TEMPORARY TABLE Peliculas_Por_Persona (  
select  
    CONCAT(first_name, ' ', last_name) As "NOMBRE COMPLETO" , f.title as "NOMBRE DE LA  
PELICULA"  
from  
    customer co inner join rental r on co.customer_id = r.customer_id  
    inner join inventory i on r.inventory_id = i.inventory_id  
    inner join film f on i.film_id = f.film_id  
    order by first_name  
);  
  
select * from Peliculas_Por_Persona;
```

The screenshot shows a SQL IDE interface with a query editor and a results pane. The query editor contains the following SQL code:

```
50 CREATE TEMPORARY TABLE Peliculas_Por_Persona (  
51 select  
52     CONCAT(first_name, ' ', last_name) As "NOMBRE COMPLETO" , f.title as "NOMBRE DE LA  
53     PELICULA"  
54 from  
55     customer co inner join rental r on co.customer_id = r.customer_id  
56     inner join inventory i on r.inventory_id = i.inventory_id  
57     inner join film f on i.film_id = f.film_id  
58     order by first_name  
59 );  
60 select * from Peliculas_Por_Persona;  
61  
62 show tables;  
63
```

The results pane displays the output of the query. It shows a table with two columns: "NOMBRE COMPLETO" and "NOMBRE DE LA PELICULA". The table contains 23 rows of data, all with the same customer name "AARON SELBY" and various movie titles.

NOMBRE COMPLETO	NOMBRE DE LA PELICULA
AARON SELBY	WILLOW TRACY
AARON SELBY	DRIFTER COMMANDMENTS
AARON SELBY	DRUMLINE CYCLONE
AARON SELBY	BEAUTY GREASE
AARON SELBY	FEVER EMPIRE
AARON SELBY	NETWORK PEAK
AARON SELBY	TEEN APOLLO
AARON SELBY	USUAL UNTOUCHABLES
AARON SELBY	ARACHNOPHOBIA ROLLERCOASTER
AARON SELBY	DORADO NOTTING
AARON SELBY	MUSCLE BRIGHT
AARON SELBY	ZHIVAGO CORE
AARON SELBY	DRIFTER COMMANDMENTS
AARON SELBY	FELLOWSHIP AUTUMN
AARON SELBY	SWEDEN SHINING
AARON SELBY	SLEEPING SUSPECTS

The bottom pane shows the Action Output, which includes the following information:

#	Time	Action	Message	Duration / Fetch
23	21:32:03	select * from Peliculas_Por_Persona LIMIT 0, 2000	2000 row(s) returned	0.000 sec / 0.000 sec
24	21:32:37	show tables	23 row(s) returned	0.016 sec / 0.000 sec
25	21:34:13	select * from Peliculas_Por_Persona LIMIT 0, 2000	2000 row(s) returned	0.000 sec / 0.015 sec

11. Consulte el tiempo máximo en días que cada cliente ha tenido una película.

```
select
r.return_date,
r.rental_date,
CONCAT(c.first_name, ' ', c.last_name) As "NOMBRE COMPLETO",
datediff (r.return_date , r.rental_date)as "resultado" ,
f.title

from
    customer c inner join rental r on c.customer_id = r.customer_id
    inner join inventory i on r.inventory_id = i.inventory_id
    inner join film f on i.film_id = f.film_id
```

The screenshot shows a SQL IDE window titled 'tallerBD'. The query editor contains the following SQL code:

```
77
78 • select
79     r.return_date,
80     r.rental_date,
81     CONCAT(c.first_name, ' ', c.last_name) As "NOMBRE COMPLETO",
82     datediff (r.return_date , r.rental_date)as "resultado" ,
83     f.title
84
85 from
86     customer c inner join rental r on c.customer_id = r.customer_id
87     inner join inventory i on r.inventory_id = i.inventory_id
88     inner join film f on i.film_id = f.film_id
```

Below the query editor, the 'Result Grid' shows the results of the query. The columns are: return_date, rental_date, NOMBRE COMPLETO, resultado, and title. The results are as follows:

return_date	rental_date	NOMBRE COMPLETO	resultado	title
2005-07-11 21:29:15	2005-07-08 19:03:15	JOEL FRANCISCO	3	ACADEMY DINOSAUR
2005-08-11 21:35:10	2005-08-02 20:13:10	GABRIEL HARDER	9	ACADEMY DINOSAUR
2005-08-30 22:26:43	2005-08-21 21:27:43	DIANNE SHELTON	9	ACADEMY DINOSAUR
2005-06-06 00:36:07	2005-05-30 20:21:07	NORMAN CURRIER	7	ACADEMY DINOSAUR
2005-06-23 17:45:00	2005-06-17 20:24:00	BEATRICE ARNOLD	6	ACADEMY DINOSAUR
2005-07-11 06:25:31	2005-07-07 10:41:31	GERALDINE PERKINS	4	ACADEMY DINOSAUR
2005-08-06 02:09:34	2005-07-30 22:02:34	VIRGIL WOFFORD	7	ACADEMY DINOSAUR
2005-08-30 20:08:01	2005-08-23 01:01:01	WILLIE MARKHAM	7	ACADEMY DINOSAUR
2005-08-03 23:59:07	2005-07-31 21:36:07	DEBRA NELSON	3	ACADEMY DINOSAUR
2005-08-25 18:58:37	2005-08-22 23:56:37	DARREN WINDHAM	3	ACADEMY DINOSAUR
2005-08-03 00:02:19	2005-08-02 00:47:19	ROBERT BAUGHMAN	1	ACADEMY DINOSAUR
2005-08-23 21:09:42	2005-08-21 18:32:42	HENRY BILLINGSLEY	2	ACADEMY DINOSAUR
2005-05-31 08:01:28	2005-05-27 07:03:28	SERGIO STANFIELD	4	ACADEMY DINOSAUR
2005-06-28 03:42:26	2005-06-21 00:30:26	FREDDIE DUGGAN	7	ACADEMY DINOSAUR
2005-07-06 00:04:06	2005-07-03 00:00:00	MARIE DUNN	3	ACADEMY DINOSAUR

The 'Output' pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
121	23:45:16	select r.return_date, r.rental_date, CONCAT(c.first_name, ' ', c.last_name) As...	958 row(s) returned	0.015 sec / 0.063 sec
122	23:46:03	select r.return_date, r.rental_date, CONCAT(c.first_name, ' ', c.last_name) As...	16044 row(s) returned	0.016 sec / 0.093 sec
123	23:53:39	select r.return_date, r.rental_date, CONCAT(c.first_name, ' ', c.last_name) As...	16044 row(s) returned	0.000 sec / 0.094 sec

The bottom status bar shows the time 11:53 p. m. and the date 29/11/2021.