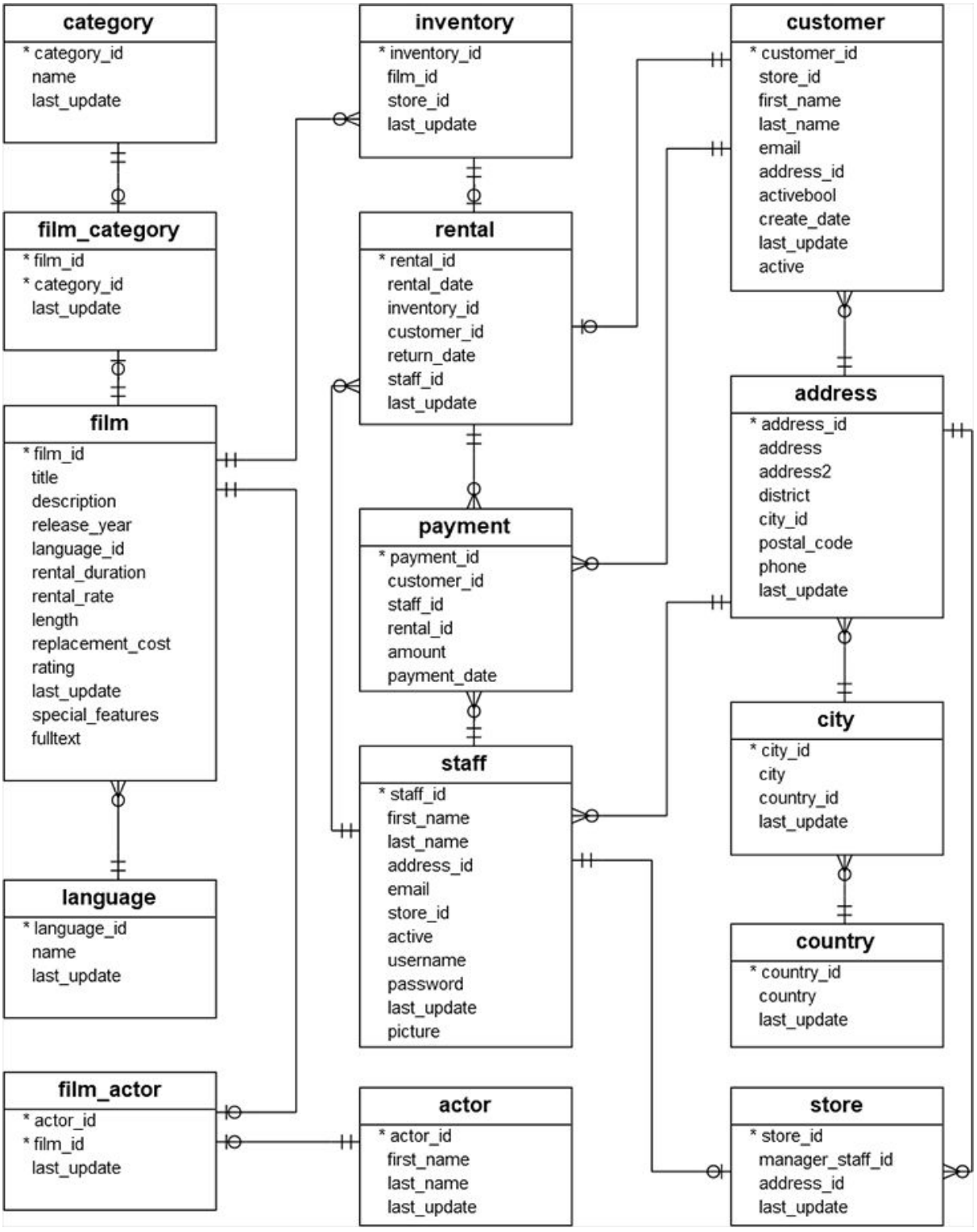

category
* category_id
name
last_update
film_category
* film_id
* category_id
last_update
film
* film_id
title
description
release_year
language_id
rental_duration
rental_rate
length
replacement_cost
rating
last_update
special_features
fulltext
language
* language_id
name
last_update
film_actor
* actor_id
* film_id
last_update
inventory
* inventory_id
film_id
store_id
last_update
rental
* rental_id
rental_date
inventory_id
customer_id
return_date
staff_id
last_update
payment
* payment_id
customer_id
staff_id
rental_id
amount
payment_date
staff
* staff_id
first_name
last_name
address_id
email
store_id
active
username
password
last_update
picture
actor
* actor_id
first_name
last_name
last_update
customer
* customer_id
store_id
first_name
last_name
email
address_id
activebool
create_date
last_update
active
address
* address_id
address
address2
district
city_id
postal_code
phone
last_update
city
* city_id
city
country_id
last_update
country
* country_id
country
last_update
store
* store_id
manager_staff_id
address_id
last_update

1. A customer wants to know the films about “astronaut”. How many recommendations could you give for him?

   I would give 78 films for recommendations. I do a query with the movie parameters (title) with the title, description, or full-text column having the word "astronaut".

```
select
    count(distinct title)
from
    film
where
    title ilike '%astronaut%'
    or description ilike '%astronaut%'
    or fulltext @@ to_tsquery('astronaut')
```

	count
1	78

   for the titles can be done the following query.

```
select
    film_id,
    title,
    description,
    fulltext
from
    film
where
    title ilike '%astronaut%'
    or description ilike '%astronaut%'
    or fulltext @@ to_tsquery('astronaut')
```

	title	description	fulltext
1	Alley Evolution	A Fast-Paced Drama of a Robot And a Composer who n	'alley':1 'astronaut':18 'battl'
2	American Circus	A Insightful Drama of a Girl And a Astronaut who must l	'administr':17 'american':1 '
3	Angels Life	A Thoughtful Display of a Woman And a Astronaut who	'angel':1 'astronaut':11 'batt
4	Anonymous Human	A Amazing Reflection of a Database Administrator And	'administr':9,18 'amaz':4 'an
5	Bikini Borrowers	A Astounding Drama of a Astronaut And a Cat who mus	'astound':4 'astronaut':8 'bik
6	Birdcage Casper	A Fast-Paced Saga of a Frisbee And a Astronaut who mu	'ancient':20 'astronaut':13 'b
7	Bound Cheaper	A Thrilling Panorama of a Database Administrator And a	'administr':9 'astronaut':12 '
8	Brotherhood Blanket	A Fateful Character Study of a Butler And a Technical W	'ancient':20 'astronaut':18 'b
9	Candles Grapes	A Fanciful Character Study of a Monkey And a Explorer	'abandon':20 'astronaut':17
10	Carrie Bunch	A Amazing Epistle of a Student And a Astronaut who mu	'amaz':4 'astronaut':11 'bun

2. I wonder, how many films have a rating of “R” and a replacement cost between $5 and $15?

there are 52 titles.

```
select
    count(title)
from
    film
where
    rating = 'R'
    and replacement_cost between 5 and 15
```

	count
1	52

3. We have two staff members with staff IDs 1 and 2. We want to give a bonus to the staff that handled the most payments. How many payments did each staff handle? And how much amount processed by each staff member?

   Mike, ID staff 1, has handled 7292 payments with total amounts of $30,252.12. And Jon, ID staff 2, has handled 7304 payments with total amounts of $31,059.92. So who gets the bonus is Jon.

```
select
    staff_id,
    count(payment_id) as payment_count,
    sum(amount) as total_amount
from
    payment
group by
    staff_id
```

	staff_id	payment_count	total_amount
1	1	7,292	30,252.12
2	2	7,304	31,059.92

4. Corporate headquarters is auditing the stores, they want to know the average replacement cost of movies by rating.

   the average replacement cost of the movies by rating. with notes, movies included in successful transactions. PG-13 $20.69, R $20.44, G $20.41, NC-17 $20.21, and PG $19.24.

```
select
```

```
    film.rating,
    count(film.rating),
    sum(film.replacement_cost)/ count(film.rating) as avg_costperrating
from
    payment
left join rental on
    payment.rental_id = rental.rental_id
left join inventory on
    rental.inventory_id = inventory.inventory_id
left join film on
    inventory.film_id = film.film_id
group by
    film.rating
order by
    avg_costperrating desc
```

	rating	count	sum	avg_costperrating
1	PG-13	3,245	67,130.55	20.6873805855
2	R	2,897	59,228.03	20.4446082154
3	G	2,508	51,187.92	20.4098564593
4	NC-17	3,008	60,781.92	20.2067553191
5	PG	2,938	56,542.62	19.2452756978

if the average calculated is based only on all films in the 'film' table list then

```
select
    film.rating,
    count(film.rating),
    sum(film.replacement_cost),
    sum(film.replacement_cost) / count(film.rating) as avg_costperrating
from
    film
group by
    film.rating
order by
    avg_costperrating desc
```

	rating	count	sum	avg_costperrating
1	PG-13	223	4,549.77	20.4025560538
2	R	195	3,945.05	20.231025641
3	NC-17	210	4,228.9	20.1376190476
4	G	178	3,582.22	20.1248314607
5	PG	194	3,678.06	18.9590721649

5. We want to send coupons to 5 customers who have spent the most amount of money. Get the name, email and their spent amount!

```
select
    payment.customer_id,
    concat(customer.first_name, ' ', customer.last_name) as name,
    customer.email,
    sum(amount) as total_amount
from
    payment
left join customer on
    payment.customer_id = customer.customer_id
group by name, customer.email, payment.customer_id
order by total_amount desc
limit 5
```

	customer_id	name	email	total_amount
1	148	Eleanor Hunt	eleanor.hunt@sakilacustomer.org	211.55
2	526	Karl Seal	karl.seal@sakilacustomer.org	208.58
3	178	Marion Snyder	marion.snyder@sakilacustomer.org	194.61
4	137	Rhonda Kennedy	rhonda.kennedy@sakilacustomer.org	191.62
5	144	Clara Shaw	clara.shaw@sakilacustomer.org	189.6

6. We want to audit our stock of films in our stores. How many copies of each movie in each store do we have?

   The number of films is calculated from the number of films rented.
   store 1:

```
select
       i.store_id,
       f.title,
       count(payment_id) as payment_count
from
    payment p
left join rental r on
    p.rental_id = r.rental_id
left join inventory i on
    r.inventory_id = i.inventory_id
left join film f on
    i.film_id = f.film_id
group by f.title, i.store_id
having i.store_id = 1
```

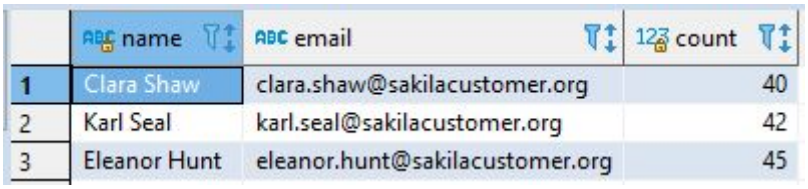
	store_id	title	payment_count
1	1	Academy Dinosaur	11
2	1	Affair Prejudice	12
3	1	Agent Truman	10
4	1	Airplane Sierra	6
5	1	Alabama Devil	8
6	1	Aladdin Calendar	11
7	1	Alamo Videotape	12
8	1	Alaska Phantom	10
9	1	Alien Center	8
10	1	Alley Evolution	6

store 2:

```
select
       i.store_id,
       f.title,
       count(payment_id) as payment_count
from
    payment p
left join rental r on
    p.rental_id = r.rental_id
left join inventory i on
    r.inventory_id = i.inventory_id
left join film f on
    i.film_id = f.film_id
group by f.title, i.store_id
having i.store_id = 2
order by f.title
```

	store_id	title	payment_count
1	2	Academy Dinosaur	10
2	2	Ace Goldfinger	7
3	2	Adaptation Holes	11
4	2	Affair Prejudice	9
5	2	African Egg	11
6	2	Agent Truman	9
7	2	Airplane Sierra	9
8	2	Airport Pollock	15
9	2	Alabama Devil	4
10	2	Aladdin Calendar	12

7. We want to know what customers are eligible for our platinum credit card. The requirements are that the customer has at least 40 transaction payments. Get the customer name, email who eligible for the credit card!



	name	email	count
1	Clara Shaw	clara.shaw@sakilacustomer.org	40
2	Karl Seal	karl.seal@sakilacustomer.org	42
3	Eleanor Hunt	eleanor.hunt@sakilacustomer.org	45

```
select
    c.first_name ||' '|| c.last_name as name,
    c.email,
    count(payment_id)
from
    payment p
left join customer c on p.customer_id = c.customer_id
group by name, c.email
having count(payment_id) >= 40
```