1. Quel est la catégorie de film la plus loué, quel est son chiffre d’affaire.

```
SELECT * FROM sales_by_film_category ORDER BY total_sales DESC
LIMIT 1;
```

```
                                                    ^
dvdrental=# SELECT * FROM sales_by_film_category ORDER BY total_sales DESC LIMIT 1;
 category | total_sales
----------+-------------
 Sports   |     4892.19
(1 row)

dvdrental=#
```

2. Combien d’utilisateurs “distincte” ont loué des films d’actions.

```
SELECT COUNT(DISTINCT customer.customer_id), name FROM category
INNER JOIN film_category ON category.category_id =
film_category.category_id INNER JOIN inventory ON
film_category.film_id = inventory.film_id INNER JOIN rental ON
inventory.inventory_id = rental.inventory_id INNER JOIN customer
ON rental.customer_id = customer.customer_id GROUP BY

category.name HAVING category.name= 'Action';
```

```
dvdrental=# SELECT COUNT(DISTINCT customer.customer_id), name FROM category INNER JOIN film_category ON category.category_id = film_category.category_id INNER JOIN inventory ON film_category.film_id = inv
entory.film_id INNER JOIN rental ON inventory.inventory_id = rental.inventory_id INNER JOIN customer ON rental.customer_id = customer.customer_id GROUP BY category.name HAVING category.name= 'Action';
 count |  name
-------+--------
   510 | Action
(1 row)
```

3. Déterminer la moyenne de revenu par catégorie ordonnée dans l’ordre décroissant.

```
dvdrental=# SELECT * FROM sales_by_film_category ORDER BY total_sales DESC;
   category    | total_sales
---------------+-------------
 Sports        |     4892.19
 Sci-Fi        |     4336.01
 Animation     |     4245.31
 Drama         |     4118.46
 Comedy        |     4002.48
 New           |     3966.38
 Action        |     3951.84
 Foreign       |     3934.47
 Games         |     3922.18
 Family        |     3830.15
 Documentary   |     3749.65
 Horror        |     3401.27
 Classics      |     3353.38
 Children      |     3309.39
 Travel        |     3227.36
 Music         |     3071.52
(16 rows)
```

```
SELECT * FROM sales_by_film_category ORDER BY total_sales DESC;
```

4. Quels sont les films qui sont retournés en retard.

```
dvdrental=# SELECT title FROM rental INNER JOIN inventory ON rental.inventory_id = inventory.inventory_id INNER JOIN film ON inventory.film_id = film.film_id WHERE EXTRACT(DAY FROM return_date - rental.re
ntal_date) < rental_duration GROUP BY title;
            title
------------------------------
 Graceland Dynamite
 Opus Ice
 Braveheart Human
 Wonderful Drop
 Rush Goodfellas
 Purple Movie
 Minority Kiss
 Luke Mummy
 Fantasy Troopers
 Grinch Massage
 Gaslight Crusade
 Microcosmos Paradise
 Saturn Name
 Memento Zoolander
 Sunset Racer
 Zoolander Fiction
 Carol Texas
 Arabia Dogma
 Stepmom Dream
 Minds Truman
 Baked Cleopatra
 Closer Bang
 Enough Raging
 Grosse Wonderful
 Innocent Usual
 Sleepless Monsoon
 Suit Walls
 Wizard Coldblooded
 Lonely Elephant
 Victory Academy
 Bedazzled Married
 Maker Gables
 Private Drop
 Worker Tarzan
 Gosford Donnie
 Annie Identity
```

```
SELECT title FROM rental INNER JOIN inventory ON
rental.inventory_id = inventory.inventory_id INNER JOIN film ON
inventory.film_id = film.film_id WHERE EXTRACT(DAY FROM
return_date - rental.rental_date) < rental_duration GROUP BY
title;
```

5. Déterminer le nombre de client par pays

```
dvdrental=# SELECT country.country, COUNT(DISTINCT customer_id) AS client_per_country FROM customer INNER JOIN address ON customer.address_id = address.address_id INNER JOIN city ON city.city_id = address
.city_id INNER JOIN country ON country.country_id = city.country_id GROUP BY country.country ORDER BY client_per_country DESC;
              country               | client_per_country
------------------------------------+--------------------
 India                              |                 60
 China                              |                 53
 United States                      |                 36
 Japan                              |                 31
 Mexico                             |                 30
 Brazil                             |                 28
 Russian Federation                 |                 28
 Philippines                        |                 20
 Turkey                             |                 15
 Indonesia                          |                 14
 Nigeria                            |                 13
 Argentina                          |                 13
 South Africa                       |                 11
 Taiwan                             |                 10
 United Kingdom                     |                  9
 Iran                               |                  8
 Poland                             |                  8
 Italy                              |                  7
 Germany                            |                  7
 Venezuela                          |                  7
 Egypt                              |                  6
 Ukraine                            |                  6
 Vietnam                            |                  6
 Colombia                           |                  6
 Spain                              |                  5
 Canada                             |                  5
 Saudi Arabia                       |                  5
 Netherlands                        |                  5
 Pakistan                           |                  5
 South Korea                        |                  5
 Peru                               |                  4
```

```
SELECT country.country, COUNT(DISTINCT customer_id) AS
client_per_country FROM customer INNER JOIN address ON
customer.address_id = address.address_id INNER JOIN city ON
city.city_id = address.city_id INNER JOIN country ON
country.country_id = city.country_id GROUP BY country.country;
```

6. Trouver les 5 clients qui génèrent le plus de profits pour la

```
dvdrental=# SELECT first_name, last_name, SUM(amount) AS level_gaven FROM customer INNER JOIN payment ON customer.customer_id = payment.customer_id GROUP BY customer.customer_id ORDER BY level_gaven DESC
LIMIT 5;
 first_name | last_name | level_gaven
------------+-----------+-------------
 Eleanor    | Hunt      |      211.55
 Karl       | Seal      |      208.58
 Marion     | Snyder    |      194.61
 Rhonda     | Kennedy   |      191.62
 Clara      | Shaw      |      189.60
(5 rows)
```

sociétés.

```
SELECT first_name, last_name, SUM(amount) AS level_gaven FROM
customer INNER JOIN payment ON customer.customer_id =
payment.customer_id GROUP BY customer.customer_id ORDER BY
level_gaven DESC LIMIT 5;
```

7. Quel est le tarif de location moyen pour chaque genre ? (du plus élevé au plus bas)

```
SELECT category, AVG(price) FROM film_list GROUP BY category
ORDER BY avg DESC;
```

```
  category   |        avg
-------------+--------------------
 Travel      | 3.2757142857142857
 Games       | 3.2522950819672131
 Sci-Fi      | 3.2195081967213115
 Comedy      | 3.1624137931034483
 New         | 3.1169841269841270
 Sports      | 3.0995890410958904
 Foreign     | 3.0995890410958904
 Horror      | 3.0257142857142857
 Drama       | 2.9900000000000000
 Music       | 2.9507843137254902
 Children    | 2.8900000000000000
 Animation   | 2.8081818181818182
 Family      | 2.7581159420289855
 Classics    | 2.7443859649122807
 Documentary | 2.6664705882352941
 Action      | 2.6462500000000000
(16 rows)
```

8. Peut-on savoir combien d'utilisateurs distincts ont loué chaque genre?

```
dvdrental=# SELECT COUNT(DISTINCT customer.customer_id), name FROM category INNER JOIN film_category ON category.category_id = film_category.category_id INNER JOIN inventory ON film_category.film_id = inv
entory.film_id INNER JOIN rental ON inventory.inventory_id = rental.inventory_id INNER JOIN customer ON rental.customer_id = customer.customer_id GROUP BY category.name;
 count |    name
-------+-------------
   510 | Action
   500 | Animation
   482 | Children
   468 | Classics
   495 | Comedy
   483 | Documentary
   501 | Drama
   501 | Family
   493 | Foreign
   474 | Games
   451 | Horror
   447 | Music
   468 | New
   507 | Sci-Fi
   519 | Sports
   442 | Travel
(16 rows)

dvdrental=#
```

```
SELECT COUNT(DISTINCT customer.customer_id), name FROM category
INNER JOIN film_category ON category.category_id =
film_category.category_id INNER JOIN inventory ON
film_category.film_id = inventory.film_id INNER JOIN rental ON
inventory.inventory_id = rental.inventory_id INNER JOIN customer
ON rental.customer_id = customer.customer_id GROUP BY
category.name;
```

9. Combien de films loués ont été retournés tard, tôt et à temps ?

```
dvdrental=# SELECT COUNT(*) FILTER(WHERE EXTRACT(DAY FROM return_date - rental.rental_date) < rental_duration) AS earlier, COUNT(*) FILTER(WHERE EXTRACT(DAY FROM return_date - rental.rental_date) =  renta
l_duration) AS d_day, COUNT(*) FILTER(WHERE EXTRACT(DAY FROM return_date - rental.rental_date) > rental_duration) AS too_late FROM rental INNER JOIN inventory ON rental.inventory_id = inventory.inventory_
id INNER JOIN film ON inventory.film_id = film.film_id;
 earlier | d_day | too_late
---------+-------+----------
    7738 |  1720 |     6403
(1 row)
```

```
SELECT COUNT(*) FILTER(WHERE EXTRACT(DAY FROM return_date -
rental.rental_date) < rental_duration) AS earlier, COUNT(*)
FILTER(WHERE EXTRACT(DAY FROM return_date - rental.rental_date) =
rental_duration) AS d_day, COUNT(*) FILTER(WHERE EXTRACT(DAY FROM
return_date - rental.rental_date) > rental_duration) AS too_late
FROM rental INNER JOIN inventory ON rental.inventory_id =
inventory.inventory_id INNER JOIN film ON inventory.film_id =
film.film_id;
```