

1. Quel est la catégorie de film la plus louée, quel est son chiffre d'affaire.

```
SELECT category.name, film_category.category_id, COUNT(rental.inventory_id) AS count_rental, SUM(amount) AS total_sales
FROM payment
INNER JOIN rental ON payment.rental_id = rental.rental_id
INNER JOIN inventory ON rental.inventory_id = inventory.inventory_id
INNER JOIN film_category ON inventory.film_id = film_category.film_id
INNER JOIN category ON film_category.category_id = category.category_id
GROUP BY film_category.category_id, category.name
ORDER BY count_rental DESC;
```

	name	category_id	count_rental	total_sales
1	Sports	15	1081	4892.19
2	Animation	2	1065	4245.31
3	Action	1	1013	3951.84
4	Sci-Fi	14	998	4336.01
5	Family	8	988	3830.15
6	Foreign	9	953	3934.47
7	Drama	7	953	4118.46
8	Documentary	6	937	3749.65
9	Games	10	884	3922.18
10	New	13	864	3966.38
11	Children	3	861	3309.39
12	Classics	4	860	3353.38
13	Comedy	5	851	4002.48
14	Horror	11	773	3401.27
15	Travel	16	765	3227.36
16	Music	12	750	3071.52

2. Combien d'utilisateurs "distincte" ont loué des films d'actions.

```
SELECT COUNT(DISTINCT customer_id) AS number_of_customers, category.name AS category_name
FROM rental
INNER JOIN inventory ON rental.inventory_id = inventory.inventory_id
INNER JOIN film_category ON inventory.film_id = film_category.film_id
INNER JOIN category ON film_category.category_id = category.category_id
GROUP BY film_category.category_id, category.name
HAVING film_category.category_id = 1
ORDER BY number_of_customers DESC;
```

	number_of_customers	category_name
1	510	Action

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

```
SELECT category.name AS category_name, AVG(amount) AS average_price
FROM payment
INNER JOIN rental ON payment.rental_id = rental.rental_id
INNER JOIN inventory ON rental.inventory_id = inventory.inventory_id
INNER JOIN film_category ON inventory.film_id = film_category.film_id
INNER JOIN category ON film_category.category_id = category.category_id
GROUP BY film_category.category_id, category.name
ORDER BY average_price DESC;
```

	category_name	average_price
1	Comedy	4.70326674500...
2	New	4.59071759259...
3	Sports	4.52561517113...
4	Games	4.43685520361...
5	Horror	4.40009055627...
6	Sci-Fi	4.34469939879...
7	Drama	4.32157397691...
8	Travel	4.21877124183...
9	Foreign	4.12850996852...
10	Music	4.09536000000...
11	Documentary	4.00176093916...
12	Animation	3.98620657276...
13	Action	3.90112537018...
14	Classics	3.89927906976...
15	Family	3.87667004048...
16	Children	3.84365853658...

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

```
SELECT film.title, extract(day from return_date - rental_date) AS number_day, rental.rental_date, rental.return_date
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_date) > film.rental_duration
ORDER BY number_day DESC;
```

	title	number_day	rental_date	return_date
1	Minds Truman	9.0	2005-08-02T17:42:49	2005-08-11T18:14:49
2	Indian Love	9.0	2005-08-23T12:41:38	2005-09-01T14:06:38
3	Clueless Bucket	9.0	2005-08-23T00:44:15	2005-09-01T05:33:15
4	Eagles Panky	9.0	2005-07-12T18:59:45	2005-07-21T22:47:45
5	Antitrust Tomatoes	9.0	2005-06-15T01:04:22	2005-06-24T06:48:22
6	Lebowski Soldiers	9.0	2005-08-02T17:45:02	2005-08-11T18:16:02
7	Aladdin Calendar	9.0	2005-08-01T00:58:52	2005-08-10T01:16:52
8	Grit Clockwork	9.0	2005-07-12T17:23:01	2005-07-21T19:38:01
9	Crooked Frogmen	9.0	2005-07-12T17:09:08	2005-07-21T22:25:08
10	Chasing Fight	9.0	2005-06-18T11:35:30	2005-06-27T11:56:30
11	Massacre Usual	9.0	2005-06-18T12:08:16	2005-06-27T15:02:16
12	Something Duck	9.0	2005-07-12T17:03:56	2005-07-21T20:32:56
13	Summer Scarface	9.0	2005-08-19T06:04:07	2005-08-28T11:05:07
14	Flying Hook	9.0	2005-07-12T16:41:00	2005-07-21T20:52:00
15	Speakeasy Date	9.0	2005-08-21T00:35:21	2005-08-30T04:51:21
16	Loathing Legally	9.0	2005-07-30T02:53:21	2005-08-08T03:33:21
17	Muscle Bright	9.0	2005-08-23T00:07:53	2005-09-01T02:55:53
18	Murder Antitrust	9.0	2005-08-23T20:04:41	2005-09-01T20:08:41
19	Mallrats United	9.0	2005-08-02T18:16:00	2005-08-11T23:38:00
20	Caribbean Liberty	9.0	2005-08-23T00:05:57	2005-09-01T05:08:57
21	Glass Dying	9.0	2005-06-16T05:12:37	2005-06-25T06:28:37
22	Watch Tracy	9.0	2005-07-12T15:29:27	2005-07-21T20:00:27
23	Steers Armageddon	9.0	2005-07-12T15:25:33	2005-07-21T18:57:33
24	Express Lonely	9.0	2005-05-27T19:18:54	2005-06-05T23:52:54
25	Outlaw Hanky	9.0	2005-08-19T05:48:12	2005-08-28T10:10:12

5. Déterminer le nombre de client par pays

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

	country	number_of_customer
1	India	60
2	China	53
3	United States	36
4	Japan	31
5	Mexico	30
6	Russian Federation	28
7	Brazil	28
8	Philippines	20
9	Turkey	15
10	Indonesia	14
11	Argentina	13
12	Nigeria	13
13	South Africa	11
14	Taiwan	10
15	United Kingdom	9
16	Iran	8
17	Poland	8
18	Germany	7
19	Venezuela	7
20	Italy	7
21	Vietnam	6
22	Colombia	6
23	Egypt	6
24	Ukraine	6
25	Canada	5
26	South Korea	5
27	Netherlands	5
28	Pakistan	5
29	Spain	5
30	Saudi Arabia	5
31	France	4
32	Peru	4

33	Yemen	4
34	Israel	4
35	Malaysia	3
36	Ecuador	3
37	Austria	3
38	Algeria	3
39	Paraguay	3
40	Morocco	3
41	Mozambique	3
42	Switzerland	3
43	Tanzania	3
44	United Arab Emir...	3
45	Thailand	3
46	Bangladesh	3
47	Dominican Repu...	3
48	Chile	3
49	Azerbaijan	2
50	Sudan	2
51	French Polynesia	2
52	Greece	2
53	Bolivia	2
54	Yugoslavia	2
55	Belarus	2
56	Kenya	2
57	Kazakstan	2
58	Myanmar	2
59	Angola	2
60	Oman	2
61	Romania	2
62	Latvia	2
63	Cameroon	2
64	Puerto Rico	2
65	Congo, The Dem...	2

66	Bulgaria	2
67	Cambodia	2
68	Hungary	1
69	Faroe Islands	1
70	Kuwait	1
71	Nauru	1
72	Armenia	1
73	Gambia	1
74	Liechtenstein	1
75	New Zealand	1
76	Runion	1
77	Czech Republic	1
78	French Guiana	1
79	Zambia	1
80	Malawi	1
81	Finland	1
82	Tonga	1
83	Afghanistan	1
84	Lithuania	1
85	Madagascar	1
86	Virgin Islands, U.S.	1
87	Saint Vincent and...	1
88	Moldova	1
89	Anguilla	1
90	Slovakia	1
91	Nepal	1
92	Estonia	1
93	Chad	1
94	Sweden	1
95	Iraq	1
96	American Samoa	1
97	Turkmenistan	1
98	Brunei	1

99	Bahrain	1
100	Senegal	1
101	North Korea	1
102	Hong Kong	1
103	Tuvalu	1
104	Sri Lanka	1
105	Ethiopia	1
106	Holy See (Vatican...	1
107	Greenland	1
108	Tunisia	1

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

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

	first_name	last_name	customer_id	total_rental
1	Eleanor	Hunt	148	211.55
2	Karl	Seal	526	208.58
3	Marion	Snyder	178	194.61
4	Rhonda	Kennedy	137	191.62
5	Clara	Shaw	144	189.60

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

```
SELECT category.name AS category_name, AVG(amount) AS average_price  
FROM payment  
INNER JOIN rental ON payment.rental_id = rental.rental_id  
INNER JOIN inventory ON rental.inventory_id = inventory.inventory_id  
INNER JOIN film_category ON inventory.film_id = film_category.film_id  
INNER JOIN category ON film_category.category_id = category.category_id  
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8. Peut-on savoir combien d'utilisateurs distincts ont loué chaque genre ?

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