

Top 10 Avg. Rental Duration in Category

category	rental_count	average_rental_duration	
Thriller	0	6.0000000000000000	
Travel	203	5.3054187192118200	
Music	179	5.1899441340782100	
Family	235	5.1446808510638300	
Classics	204	5.1323529411764700	
Foreign	252	5.1111111111111110	
Children	212	5.1037735849056600	
Drama	229	5.0873362445414800	
Games	208	5.0865384615384600	
Action	228	5.0263157894736800	1

QUERY CODE

```

SELECT
  c.name AS category,
  COUNT(r.rental_id) AS rental_count,
  AVG(f.rental_duration) AS average_rental_duration,
  CORR(f.rental_duration, c.category_id) AS correlation
FROM
  film f
JOIN
  film_category fc ON f.film_id = fc.film_id
JOIN
  category c ON fc.category_id = c.category_id
LEFT JOIN
  rental r ON f.film_id = r.inventory_id
GROUP BY
  c.name, c.category_id
ORDER BY

```

1
2
3
4
5
6
7
8
9
0

Thriller has longer rental duration

Second is Travel

Third is music

Larger rental Count from this list is

Family Category

```
average_rental_duration DESC  
LIMIT 10;
```

Top 10 Countries customers are based in:

Top 10 Countries

country	customer_count
India	60
China	53
United States	36
Japan	31
Mexico	30
Brazil	28
Russian Federation	28
Philippines	20
Turkey	15
Indonesia	14

QUERY CODE

```
SELECT co.country, COUNT(c.customer_id) AS customer_count
FROM customer AS c
JOIN address AS a ON c.address_id = a.address_id
JOIN city AS ct ON a.city_id = ct.city_id
JOIN country AS co ON ct.country_id = co.country_id
GROUP BY co.country
ORDER BY customer_count DESC
LIMIT 10;
```

This is merely the amount of customers,
not necessarily the customers with larger sales,
rental counts or revenue generators.

Average rental duration for all videos:

min_rental_duration	max_rental_duration	
3	7	

avg_rental_rate	count_rental_rate_values	
2.98	1000	

min_replacement_cost	max_replacement_cost
9.99	29.99

QUERY CODE

```
SELECT
    MIN(rental_duration) AS min_rental_duration,
    MAX(rental_duration) AS max_rental_duration,
    AVG(rental_duration) AS avg_rental_duration,
    COUNT(rental_duration) AS count_rental_duration,
    MIN(rental_rate) AS min_rental_rate,
    MAX(rental_rate) AS max_rental_rate,
    AVG(rental_rate) AS avg_rental_rate,
    COUNT(rental_rate) AS count_rental_rate_values,
    MIN(length) AS min_length,
    MAX(length) AS max_length,
    AVG(length) AS avg_length,
    COUNT(length) AS count_length_values,
    MIN(replacement_cost) AS min_replacement_cost,
    MAX(replacement_cost) AS max_replacement_cost,
    AVG(replacement_cost) AS avg_replacement_cost,
    COUNT(replacement_cost) AS count_replacement_cost_values,
```

```
    COUNT(*) AS count_rows  
FROM  
  film;
```

avg_rental_duration	count_rental_duration	
4.985	1000	

min_length	max_length	
46	185	

st	avg_replacement_cost	count_replaceme
	19.984	100

min_rental_rate	max_rental_rate
0.99	4.99

avg_length	count_length_values
115.272	1000

ent_cost_values	count_rows
00	1000

Top 10 Rental Amount Custom

first_name	last_name	city	country
Eleanor	Hunt	Saint-Denis	Runion
Karl	Seal	Cape Coral	United States
Clara	Shaw	Molodetno	Belarus
Marion	Snyder	Santa Brbara dOeste	Brazil
Rhonda	Kennedy	Apeldoorn	Netherlands
Marcia	Dean	Tanza	Philippines
Tommy	Collazo	Qomsheh	Iran
Curtis	Irby	Richmond Hill	Canada
Wesley	Bull	Ourense (Orense)	Spain
Tammy	Sanders	Changhwa	Taiwan

Lowest 10 Rental Amount

first_name	last_name	city	country
Brian	Wyman	Bydgoszcz	Poland
Leona	Obrien	Fuzhou	China
Caroline	Bowman	Tallahassee	United States
Tiffany	Jordan	Enshi	China
Katherine	Rivera	Basel	Switzerland
Anita	Morales	Hubli-Dharwad	India
Anthony	Schwab	Tafuna	American Samoa
Kirk	Stclair	Tsaotun	Taiwan
Lester	Kraus	Kanchrapara	India
Penny	Neal	Kumbakonam	India



ners

rental_count	total_revenue
2070	9731.30
1890	9386.10
1680	7963.20
1521	7589.79
1482	7473.18
1638	6997.62
1406	6977.94
1444	6369.56
1400	6346.00
1599	6134.01

QUERY CODE

```
WITH customer_revenue AS
  SELECT c.customer_id, c.first_name, c.last_name, c.address, c.city, c.country, c.payment, c.rental
  FROM customer c
  JOIN address a ON c.address_id = a.address_id
  JOIN city ct ON a.city_id = ct.city_id
  JOIN country co ON ct.country_id = co.country_id
  JOIN payment p ON c.customer_id = p.customer_id
  JOIN rental r ON c.customer_id = r.customer_id
  GROUP BY c.customer_id, c.first_name, c.last_name, c.address, c.city, c.country, c.payment, c.rental
)
SELECT first_name, last_name, total_revenue
FROM customer_revenue
ORDER BY total_revenue DESC
LIMIT 10;
```

t

rental_count	total_revenue
84	335.16
140	460.60
195	568.05
168	698.32
182	810.18
210	897.90
300	957.00
323	965.77
240	1005.60
288	1023.12

QUERY CODE

```
WITH customer_revenue AS
  SELECT c.customer_id, c.first_name, c.last_name, c.address, c.city, c.country, c.payment, c.rental
  FROM customer c
  JOIN address a ON c.address_id = a.address_id
  JOIN city ct ON a.city_id = ct.city_id
  JOIN country co ON ct.country_id = co.country_id
  JOIN payment p ON c.customer_id = p.customer_id
  JOIN rental r ON c.customer_id = r.customer_id
  GROUP BY c.customer_id, c.first_name, c.last_name, c.address, c.city, c.country, c.payment, c.rental
)
SELECT first_name, last_name, total_revenue
FROM customer_revenue
ORDER BY total_revenue DESC
LIMIT 10;
```



```
st_name, c.last_name, ct.city, co.country, COUNT(r.rental_id) AS rental_count, S
```

```
st_name, c.last_name, ct.city, co.country, COUNT(r.rental_id) AS rental_count, S
```


ΣUM(p.amount) AS total_revenue

ΣUM(p.amount) AS total_revenue

MPAA Rating.Revenue.Sales.Country.Category

mpaa_rating	total_sales	total_revenue	category	count
PG-13	767.16	94605.44	Drama	Canad
NC-17	764.35	98232.75	Music	Austra
PG-13	757.46	83846.84	Foreign	Canad
NC-17	746.32	104091.00	Music	Canad
NC-17	713.47	88964.91	Drama	Canad
NC-17	697.40	80384.00	New	Canad
PG-13	684.33	74472.75	Animation	Canad
G	662.33	76084.44	Action	Canad
R	659.53	63728.91	Action	Austra
PG	610.43	65222.51	Family	Canad

This list sorts out the Total Sales as the ordering method,
Yet the highest revenue is clearly NC-17

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QUERY CODE:

```
SELECT
    f.rating AS mpaa_rating,
    SUM(p.amount) AS total_sales,
    SUM(f.rental_rate) * COUNT(r.rental_id) AS total_revenue,
    c.name AS category,
    cy.country AS country
FROM
    film AS f
JOIN
    inventory AS i ON f.film_id = i.film_id
JOIN
    rental AS r ON i.inventory_id = r.inventory_id
JOIN
    payment AS p ON r.rental_id = p.rental_id
JOIN
    film_category AS fc ON f.film_id = fc.film_id
JOIN
    category AS c ON fc.category_id = c.category_id
JOIN
    store AS s ON i.store_id = s.store_id
JOIN
    address AS a ON s.address_id = a.address_id
JOIN
    city AS ct ON a.city_id = ct.city_id
JOIN
    country AS cy ON ct.country_id = cy.country_id
GROUP BY
    f.rating, c.name, cy.country
ORDER BY
    total_sales DESC, total_revenue DESC
LIMIT 10;
```

Film.Total Sales.Total Revenue. Category. Country

film_title	total_sales	total_revenue	category	cc
Telegraph Voyage	121.86	978.04	Music	Ca
Whale Bikini	113.85	1122.75	Foreign	Ca
Teen Apollo	109.86	978.04	Travel	At
Sunrise League	109.85	1122.75	Animation	Ca
Zorro Ark	108.85	1122.75	Comedy	Ca
Virtual Spoilers	105.87	843.31	Family	At
Fool Mockingbird	104.86	978.04	Action	Ca
Strangers Graffiti	104.86	978.04	Horror	At
Lola Agent	104.84	1277.44	Horror	At
Tycoon Gathering	103.88	718.56	Games	Ca

Top 10 film revenue and sales.

Lola Agen-Horror- in Australia- held highest revenue.

While the highest sales on this film list is

Telegraph Voyage-Music- Canada

y

country

Canada

Canada

Australia

Canada

Canada

Australia

Canada

Australia

Australia

Canada

QUERY CODE

```
SELECT
    f.title AS film_title,
    SUM(p.amount) AS total_sales,
    SUM(f.rental_rate) * COUNT(r.rental_id) AS total_reve
    c.name AS category,
    cy.country AS country
FROM
    film AS f
JOIN
    inventory AS i ON f.film_id = i.film_id
JOIN
    rental AS r ON i.inventory_id = r.inventory_id
JOIN
    payment AS p ON r.rental_id = p.rental_id
JOIN
    film_category AS fc ON f.film_id = fc.film_id
JOIN
    category AS c ON fc.category_id = c.category_id
JOIN
    store AS s ON i.store_id = s.store_id
JOIN
    address AS a ON s.address_id = a.address_id
JOIN
    city AS ct ON a.city_id = ct.city_id
JOIN
    country AS cy ON ct.country_id = cy.country_id
GROUP BY
    f.title, c.name, cy.country
ORDER BY
    total_sales DESC
LIMIT 10;
```

enue,

Lowest Rented Movies

title	rental_rate	category
Train Bunch	4.99	Horror
Hardly Robbers	2.99	Documentary
Mixed Doors	2.99	Foreign
Fever Empire	4.99	Games
Mussolini Spoilers	2.99	Sports
Bunch Minds	2.99	Drama
Braveheart Human	2.99	Family
Private Drop	4.99	Games
Glory Tracy	2.99	Games
Traffic Hobbit	4.99	Travel

Highest Rented Category

title	rental_rate	category
Bucket Brotherhood	4.99	Travel
Rocketeer Mother	0.99	Foreign
Grit Clockwork	0.99	Games
Ridgemont Submarine	0.99	New
Scalawag Duck	4.99	Music
Juggler Hardly	0.99	Animation
Forward Temple	2.99	Games
Timberland Sky	0.99	Classics
Network Peak	2.99	Family
Apache Divine	4.99	Family

QUERY CODE

```
WITH lowest_rented_films AS (  
  SELECT f.title, f.rental_rate, c.name AS category, CO  
  FROM film f  
  JOIN inventory i ON f.film_id = i.film_id  
  JOIN rental r ON i.inventory_id = r.inventory_id  
  JOIN film_category fc ON f.film_id = fc.film_id  
  JOIN category c ON fc.category_id = c.category_id  
  GROUP BY f.title, f.rental_rate, c.name  
  ORDER BY rental_count ASC  
  LIMIT 10  
)  
SELECT title, rental_rate, category  
FROM lowest_rented_films;
```

QUERY CODE

```
WITH highest_rented_films AS (  
  SELECT f.title, f.rental_rate, c.name AS category, CO  
  FROM film f  
  JOIN inventory i ON f.film_id = i.film_id  
  JOIN rental r ON i.inventory_id = r.inventory_id  
  JOIN film_category fc ON f.film_id = fc.film_id  
  JOIN category c ON fc.category_id = c.category_id  
  GROUP BY f.title, f.rental_rate, c.name  
  ORDER BY rental_count DESC  
  LIMIT 10  
)  
SELECT title, rental_rate, category  
FROM highest_rented_films;
```


UNT(r.rental_id) AS rental_count

UNT(r.rental_id) AS rental_count

Cost of Acquiring Movies By Genre

category_id	genre	total_cost
6	Documentary	1334.32
4	Classics	1197.43
14	Sci-Fi	1290.39
11	Horror	1112.44
15	Sports	1509.26
10	Games	1237.39
3	Children	1203.40
8	Family	1338.32
5	Comedy	1103.42
16	Travel	1084.43
12	Music	991.49
7	Drama	1307.38
9	Foreign	1361.27
2	Animation	1328.34
17	Thriller	22.99
1	Action	1338.36
13	New	1223.37

Employees with Highest Rental Rates

staff_id	first_name	last_name	store_id	rental_count
1	Mike	Hillyer	1	8040
2	Jon	Stephens	2	8004

QUERY CODE

```
SELECT
    co.country,
    SUM(p.amount) AS total_sales
FROM
    country co
JOIN
    city ci ON co.country_id = ci.country_id
JOIN
    address ad ON ci.city_id = ad.city_id
JOIN
    customer cu ON ad.address_id = cu.address_id
JOIN
    payment p ON cu.customer_id = p.customer_id
GROUP BY
    co.country
ORDER BY
    total_sales DESC;
```


Country.Category.Duration.Count

country	category	rental_duration	total_rental_co
India	Children	5	
India	Travel	7	
India	Sports	3	
China	Sports	3	
India	Action	4	
India	Documentary	3	
India	Documentary	6	
China	Games	6	
China	Animation	3	
India	Horror	4	
India	Sports	5	
India	Sports	6	
India	New	4	
India	New	3	
Japan	Animation	3	
India	Sci-Fi	5	
India	Foreign	7	
China	New	3	
China	Music	5	

ount
36
32
32
32
32
31
31
30
30
30
28
28
27
27
27
27
27
27
26

QUERY CODE

```

SELECT
    co.country,
    cat.name AS category,
    f.rental_duration,
    COUNT(r.rental_id) AS total_rental_count
FROM
    country co
JOIN
    city ci ON co.country_id = ci.country_id
JOIN
    address ad ON ci.city_id = ad.city_id
JOIN
    customer cu ON ad.address_id = cu.address_id
JOIN
    rental r ON cu.customer_id = r.customer_id
JOIN
    inventory inv ON r.inventory_id = inv.inventory_id
JOIN
    film f ON inv.film_id = f.film_id
JOIN
    film_category fc ON f.film_id = fc.film_id
JOIN
    category cat ON fc.category_id = cat.category_id
GROUP BY
    co.country,
    cat.name,
    f.rental_duration
ORDER BY
    total_rental_count DESC;

```

nt

d

ddress_id

ar_id

ventory_id

d

category_id

Highest Revenue Movie by Category

category	movie	total_revenue
Music	Telegraph Voyage	215.75
Comedy	Zorro Ark	199.72
Documentary	Wife Turn	198.73
Foreign	Innocent Usual	191.74
Comedy	Hustler Party	190.78
Sports	Saturday Lambs	190.74
Sci-Fi	Titans Jerk	186.73
Drama	Harry Idaho	177.73
Drama	Torque Bound	169.76
Animation	Dogma Family	168.72

LOWEST

Sci-Fi	Stallion Sundance	7.94
Classics	Lights Deer	7.93
Classics	Cruelty Unforgiven	6.94
Drama	Treatment Jekyll	6.94
Documentary	Young Language	6.93
Music	Rebel Airport	6.93
Comedy	Freedom Cleopatra	5.95
Documentary	Duffel Apocalypse	5.94
Horror	Texas Watch	5.94
New	Oklahoma Jumanji	5.94

Rentals Per Customer

average_rentals_per_customer

26.7846410684474000

Query Code:

```
SELECT ct.city, COUNT(c.customer_id) AS customer_count
FROM customer AS c
JOIN address AS a ON c.address_id = a.address_id
JOIN city AS ct ON a.city_id = ct.city_id
JOIN country AS co ON ct.country_id = co.country_id
WHERE co.country IN (
    SELECT co.country
    FROM customer AS c
    JOIN address AS a ON c.address_id = a.address_id
    JOIN city AS ct ON a.city_id = ct.city_id
    JOIN country AS co ON ct.country_id = co.country_id
    GROUP BY co.country
    ORDER BY COUNT(c.customer_id) DESC
    LIMIT 10
)
GROUP BY ct.city
ORDER BY customer_count DESC
LIMIT 10;
```


.S customer_count

co.country_id

= co.country_id

Sports.Family.Action.Rental Duration

category_name	average_rental_duration
Family	5.1617647058823500
Action	4.9531250000000000
Sports	4.7162162162162200

QUERY CODE:

```
SELECT
    c.name AS category_name,
    AVG(f.rental_duration) AS average_rental_duratio
FROM
    film f
JOIN
    film_category fc ON f.film_id = fc.film_id
JOIN
    category c ON fc.category_id = c.category_id
WHERE
    c.name IN ('Sports', 'Family', 'Action')
GROUP BY
    c.name
ORDER BY
    average_rental_duration DESC;
```


Customer.Country.Total Paid

customer_id	first_name	last_name	country
148	Eleanor	Hunt	Runion
526	Karl	Seal	United States
178	Marion	Snyder	Brazil
137	Rhonda	Kennedy	Netherlands
144	Clara	Shaw	Belarus
459	Tommy	Collazo	Iran
181	Ana	Bradley	United States
410	Curtis	Irby	Canada
236	Marcia	Dean	Philippines
403	Mike	Way	India
522	Arnold	Havens	Philippines
469	Wesley	Bull	Spain
470	Gordon	Allard	Yemen
373	Louis	Leone	Philippines
468	Tim	Cary	India
259	Lena	Jensen	India
462	Warren	Sherrod	Russian Federation
372	Steve	Mackenzie	Indonesia
187	Brittany	Riley	Ukraine

	total_amount_paid
	211.55
	208.58
	194.61
	191.62
	189.60
	183.63
	167.67
	167.62
	166.61
	162.67
	161.68
	158.65
	157.69
	156.66
	154.66
	152.71
	152.69
	152.68
	151.73

QUERY CODE:

```

SELECT
    cu.customer_id,
    cu.first_name,
    cu.last_name,
    co.country,
    SUM(p.amount) AS total_
FROM
    customer cu
LEFT JOIN
    rental r ON cu.customer_
JOIN
    payment p ON r.rental_ic
JOIN
    address ad ON cu.addre
JOIN
    city ct ON ad.city_id = ct.
JOIN
    country co ON ct.country
GROUP BY
    cu.customer_id,
    cu.first_name,
    cu.last_name,
    co.country
ORDER BY
    total_amount_paid DESC

```

amount_paid

id = r.customer_id

id = p.rental_id

ss_id = ad.address_id

/id = co.country_id