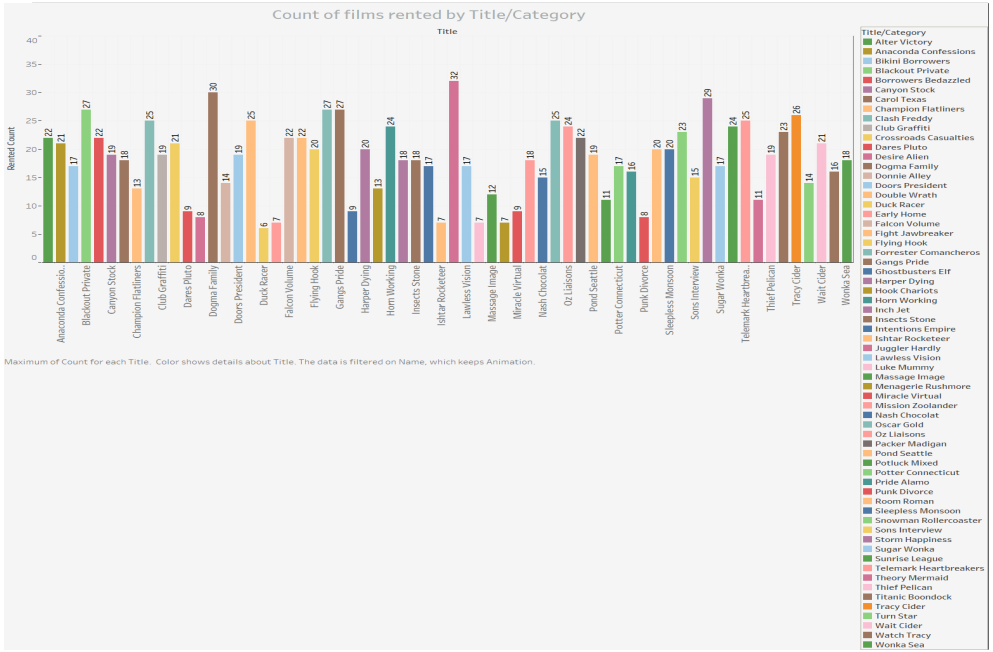
Count of films rented by Title/category

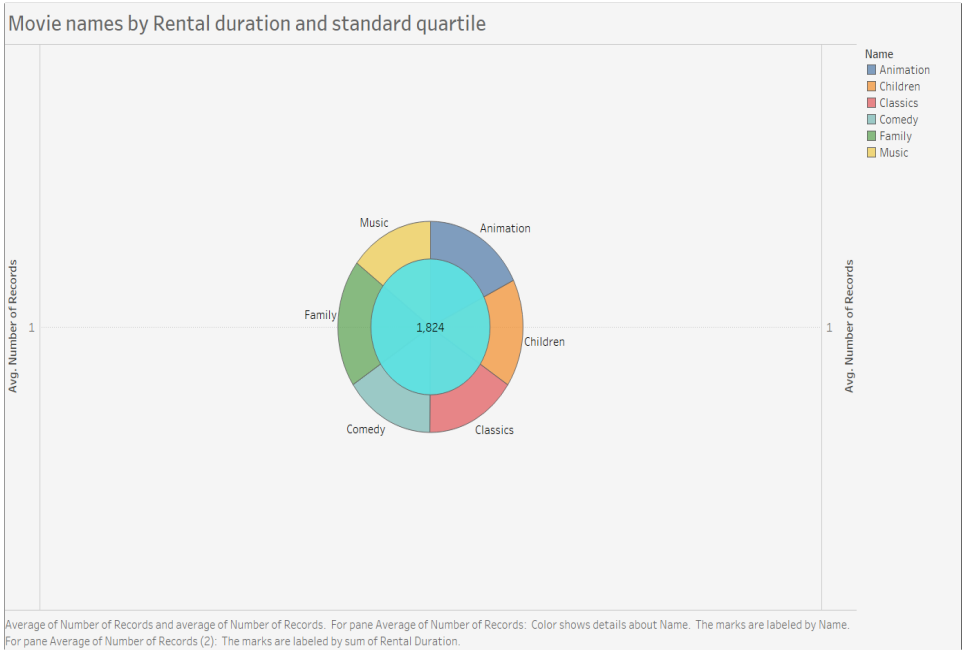


- The following visualization is a depiction of films, count of the number of times it is rented by title/category.

- Worksheet Question set#1 Question 1:

```
Select f.title,c.name, count(r.rental_id)
FROM film_category fc
JOIN category c
ON c.category_id = fc.category_id
JOIN film f
ON f.film_id = fc.film_id
JOIN inventory i
ON i.film_id = fc.film_id
JOIN rental r
ON r.inventory_id=i.inventory_id
WHERE c.name IN ('Animation','Children','Classics','Comedy','Family','Music')
GROUP BY 1,2
ORDER BY 2,1
```

Movies by Rental duration and standard quartile

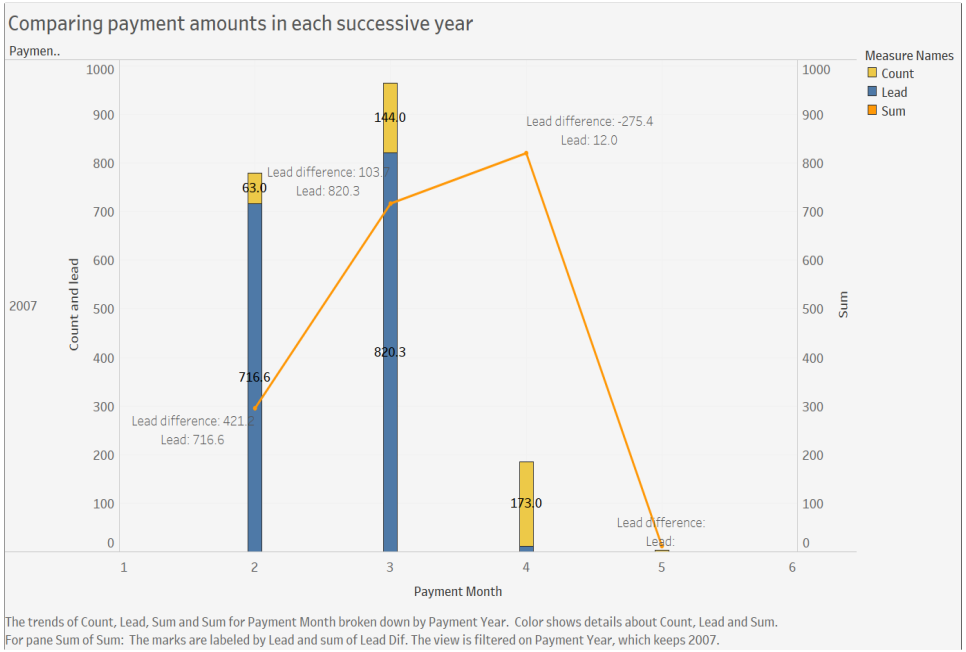


- The following visualization is a depiction of the movie names by rental duration and standard quartile.

- Workshseet Question set #1 Question 2:

```
SELECT f.title, c.name, f.rental_duration, NTILE(4) OVER
(ORDER BY f.rental_duration) AS standard_quartile
FROM film_category fc
JOIN category c
ON c.category_id = fc.category_id
JOIN film f
ON f.film_id = fc.film_id
WHERE c.name IN ('Animation', 'Children', 'Classics', 'Comedy',
'Family', 'Music')
ORDER BY 3
```

Comparing payment amounts in each successive month



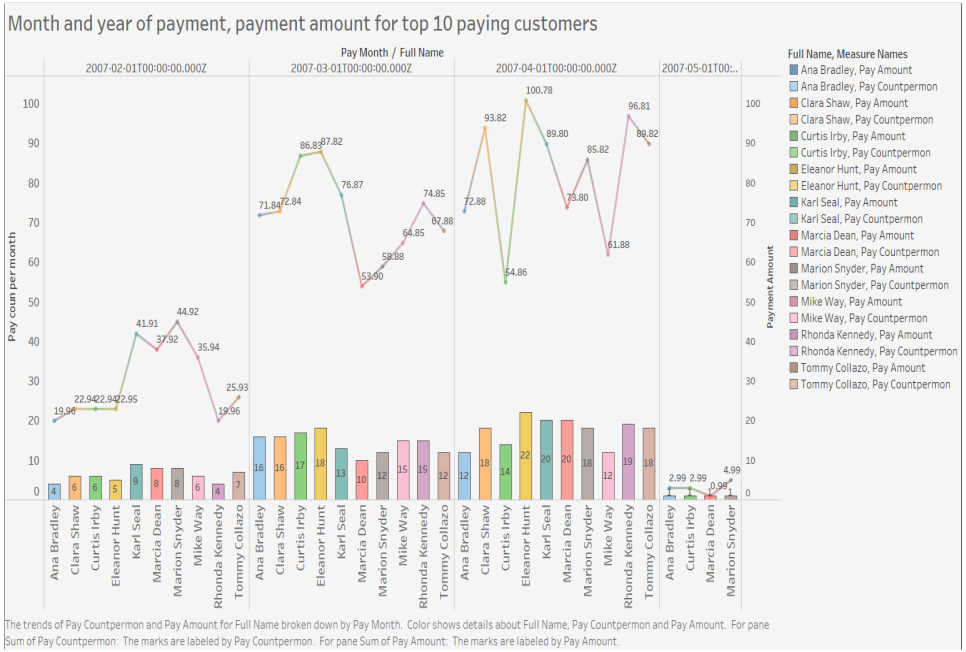
The following visualization compares the payments amounts in each successive month.

Workspace Question set#2 Question 3:

```
SELECT DATE_TRUNC('month', p.payment_date) pay_month, c.first_name || ' ' ||
c.last_name AS full_name, COUNT(p.amount) AS pay_countpermon, SUM(p.amount) AS
pay_amount


    FROM customer c
    JOIN pyment p
    ON p.customer_id = c.customer_id
    WHERE c.first_name || ' ' || c.last_name IN
    (SELECT t1.full_name
    FROM
    (SELECT c.first_name || ' ' || c.last_name AS full_name, SUM(p.amount) as amount_total
    FROM customer c
    JOIN payment p
    ON p.customer_id = c.customer_id
    GROUP BY 1
    ORDER BY 2 DESC
    LIMIT 10) t1) AND (p.payment_date BETWEEN '2007-01-01' AND '2008-01-01')
    GROUP BY 2, 1
    ORDER BY 2, 1, 3
```

Month and year of payment, payment amount for top 10 paying customers



The following visualization depicts month and year of payment and total payment amount for each month of the top 10 paying customers

Workspace Question set#2 Question 2:

```
WITH t1 AS (SELECT (first_name || ' ' || last_name) AS name,
                   c.customer_id,
                   p.amount,
                   p.payment_date
            FROM customer AS c
                JOIN payment AS p
                 ON c.customer_id = p.customer_id),
    t2 AS (SELECT t1.customer_id
           FROM t1
           GROUP BY 1
           ORDER BY SUM(t1.amount) DESC
           LIMIT 10),
t3 AS (SELECT t1.name,
DATE_PART('month', t1.payment_date) AS payment_month,
            DATE_PART('year', t1.payment_date) AS payment_year,
            COUNT (*),
            SUM(t1.amount),
            SUM(t1.amount) AS total,
            LEAD(SUM(t1.amount)) OVER(PARTITION BY t1.name ORDER BY DATE_PART('month', t1.payment_date)) AS lead,
LEAD(SUM(t1.amount)) OVER(PARTITION BY t1.name ORDER BY DATE_PART('month', t1.payment_date)) - SUM(t1.amount) AS lead_dif
 FROM t1
           JOIN t2
            ON t1.customer_id = t2.customer_id
       WHERE t1.payment_date BETWEEN '20070101' AND '20080101'
       GROUP BY 1, 2, 3
       ORDER BY 1, 3, 2)
SELECT t3.*,
 CASE WHEN t3.lead_dif = (SELECT MAX(t3.lead_dif) FROM t3 ORDER BY 1 DESC LIMIT 1) THEN 'this is the maximum difference'
ELSE NULL
   END AS is_max
 FROM t3
ORDER BY 1;
```