* **Query 1 – query used for the first insight:**

1. **Actual code:**

WITH movie   
     AS (SELECT film.title    film\_title,   
                category.NAME category\_name,   
                rental.rental\_date   
         FROM   film   
                JOIN film\_category   
                  ON film.film\_id = film\_category.film\_id   
                JOIN category   
                  ON category.category\_id = film\_category.category\_id   
                     AND category.NAME IN ( 'Animation', 'Children', 'Classics',   
                                            'Comedy',   
                                            'Family', 'Music' )   
                JOIN inventory   
                  ON inventory.film\_id = film.film\_id   
                JOIN rental   
                  ON inventory.inventory\_id = rental.inventory\_id   
         ORDER  BY 2)   
SELECT DISTINCT( film\_title ),   
               category\_name,   
               *Count*(rental\_date)   
                 OVER(   
                   partition BY film\_title) AS rental\_count   
FROM   movie   
ORDER  BY 2,   
          1

1. **Code for visualization:**

WITH t1   
     AS (WITH movie   
              AS (SELECT film.title    film\_title,   
                         category.NAME category\_name,   
                         rental.rental\_date   
                  FROM   film   
                         JOIN film\_category   
                           ON film.film\_id = film\_category.film\_id   
                         JOIN category   
                           ON category.category\_id = film\_category.category\_id   
                              AND category.NAME IN ( 'Animation', 'Children',   
                                                     'Classics',   
                                                     'Comedy',   
                                                     'Family', 'Music' )   
                         JOIN inventory   
                           ON inventory.film\_id = film.film\_id   
                         JOIN rental   
                           ON inventory.inventory\_id = rental.inventory\_id   
                  ORDER  BY 2)   
         SELECT DISTINCT( film\_title ),   
                        category\_name,   
                        *Count*(rental\_date)   
                          OVER(   
                            partition BY film\_title) AS rental\_count   
          FROM   movie   
          ORDER  BY 2,   
                    1)   
SELECT category\_name,   
       *Cast*(*Avg*(rental\_count) AS *INT*) avrage\_rental\_count   
FROM   t1   
GROUP  BY 1   
ORDER  BY 1

* **Query 2 – query used for the second insight:**

SELECT film.title                    film\_title,   
       category.NAME                 category\_name,   
       film.rental\_duration,   
       **Ntile**(4)   
         OVER(   
           ORDER BY rental\_duration) standard\_quartile   
FROM   film   
       JOIN film\_category   
         ON film.film\_id = film\_category.film\_id   
       JOIN category   
         ON category.category\_id = film\_category.category\_id   
            AND category.NAME IN ( 'Animation', 'Children', 'Classics', 'Comedy'   
                                   ,   
                                   'Family', 'Music' )

* **Query 3 – query used for the third insight:**

1. **Actual code:**

WITH movie   
     AS (SELECT film.title                    film\_title,   
                category.NAME                 category\_name,   
                film.rental\_duration,   
                **Ntile**(4)   
                  OVER(   
                    ORDER BY rental\_duration) standard\_quartile   
         FROM   film   
                JOIN film\_category   
                  ON film.film\_id = film\_category .film\_id   
                JOIN category   
                  ON category.category\_id = film\_category .category\_id   
                     AND category.NAME IN ( 'Animation', 'Children', 'Classics',   
                                            'Comedy',   
                                            'Family', 'Music' ))   
SELECT category\_name,   
       standard\_quartile,   
       *Count*(film\_title)   
FROM   movie   
GROUP  BY 1,   
          2   
ORDER  BY 1,   
          2

1. **Code for visualization:**

WITH t1   
     AS (WITH movie   
              AS (SELECT film.title                    film\_title,   
                         category.NAME                 category\_name,   
                         film.rental\_duration,   
                         **Ntile**(4)   
                           OVER(   
                             ORDER BY rental\_duration) standard\_quartile   
                  FROM   film   
                         JOIN film\_category   
                           ON film.film\_id = film\_category .film\_id   
                         JOIN category   
                           ON category.category\_id = film\_category .category\_id   
                              AND category.NAME IN ( 'Animation', 'Children',   
                                                     'Classics',   
                                                     'Comedy',   
                                                     'Family', 'Music' ))   
         SELECT category\_name,   
                standard\_quartile,   
                *Count*(film\_title)   
          FROM   movie   
          GROUP  BY 1,   
                    2   
          ORDER  BY 1,   
                    2)   
SELECT **Concat** (category\_name, ' SQ: ', standard\_quartile)   
       category\_name\_and\_quartile,   
       count   
FROM   t1

* **Query 4 – query used for the fourth insight:**

1. **Actual code**

SELECT **Date\_part**('month', rental.rental\_date) rental\_month,   
       **Date\_part**('year', rental.rental\_date)  rental\_year,   
       store.store\_id                         store\_ID,   
       *Count*(rental.rental\_id)                count\_rentals   
FROM   rental   
       JOIN staff   
         ON rental.staff\_id = staff.staff\_id   
       JOIN store   
         ON store.store\_id = staff.store\_id   
GROUP  BY 1,   
          2,   
          3   
ORDER  BY 4 DESC

1. **Code for visualization:**

WITH t1   
     AS (SELECT **Date\_part**('month', rental.rental\_date) rental\_month,   
                **Date\_part**('year', rental.rental\_date)  rental\_year,   
                store.store\_id                         store\_ID,   
                *Count*(rental.rental\_id)                count\_rentals   
         FROM   rental   
                JOIN staff   
                  ON rental.staff\_id = staff.staff\_id   
                JOIN store   
                  ON store.store\_id = staff.store\_id   
         GROUP  BY 1,   
                   2,   
                   3   
         ORDER  BY 4 DESC)   
SELECT **Concat**(rental\_month, '-', rental\_year, ' store\_id: ', store\_id)   
       month\_and\_year,   
       count\_rentals   
FROM   t1