



Sakila DVD Rental Database



Analysis using PostgreSQL
by Emmanuel F. Werr



What are the most popular days of the week for renting and returning movies? Do they vary by Genre?

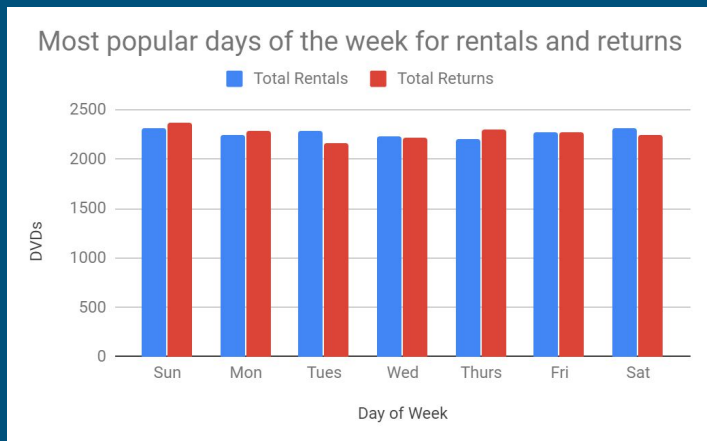


Fig 1. It is easy to see that every day of the week is equally as popular for renting and returning movies. There is a slight difference between numbers each day, but not enough of a difference to mean anything significant. This wouldn't make any sense for a real DVD rental store, but Given that elements in this database were randomly generated For the purpose of this project, it makes perfect sense.

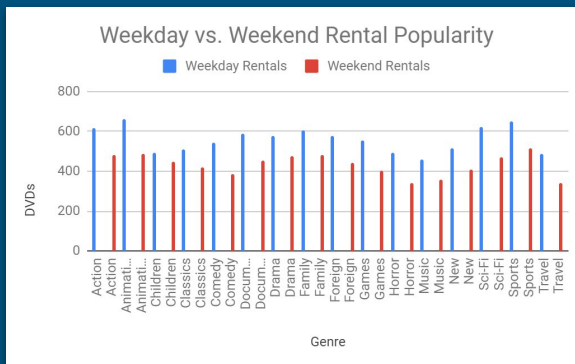


Fig 2. The graph indicates that Weekdays are more popular for renting than Weekends but this is likely due to the fact that the 'Weekday' bar accounts for four Days of the week while the 'Weekend' bar for only three. It seems that even for each individual genre, rentals are Approx equal for each day.

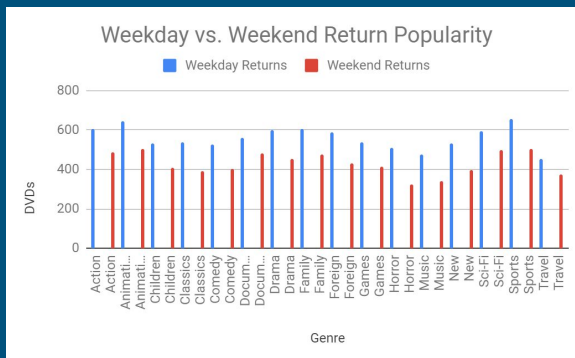


Fig 3. The same phenomenon stated above for rentals in figure 2 is visible for returns in figure 3. A characteristic we can observe from both figures is that some genres are more popular than others.

ANS. Some genres are more popular than others but there is no significant variation in rental or returns by DOW.

For how many days are movies usually kept? Are they being returned early or late? Is the average affected by genre?

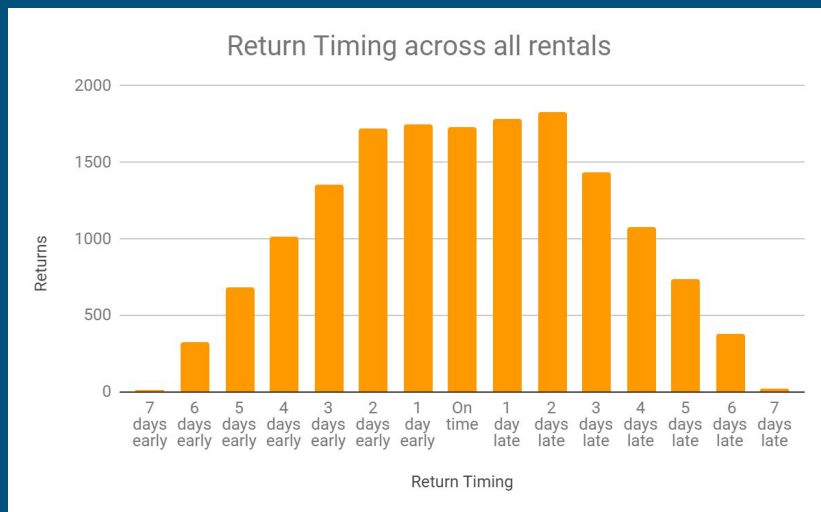


Fig 1. Most returns are made either right on time or just a day or two before or after the deadline. Many, however, return their copies Up to a full 7 days earlier or later than the deadline.

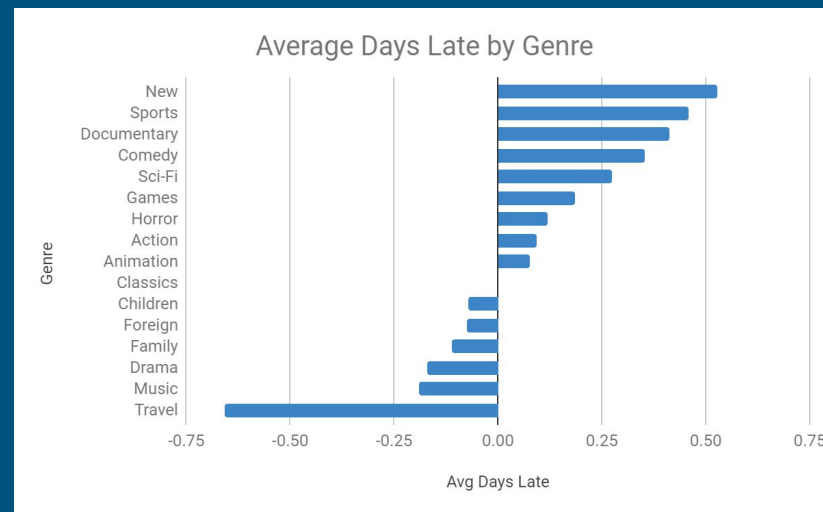


Fig 2. This graph shows us that DVDs in the "New" genre are returned on average, later than DVDs from any other genre. On the other side of the spectrum, "Travel" DVDs are returned, on average, earlier than any other genre. "Animation" DVDs are beside the median, being returned, on average, right on time.

ANS. Movies are usually kept for 5 days on average (query for this result in text file). Most films are returned a day or two over or under their deadline but the range across all returns, early vs. late, is 14 days. Finally, average time of return varies visibly by genre.

How much money has been paid to each store for unreturned copies of movies by genre?

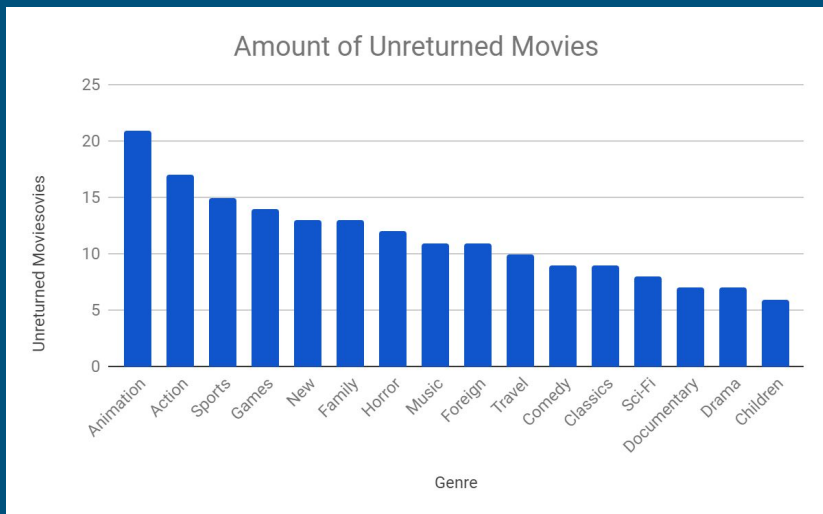


Fig 1. The column chart above lists the amount of unreturned movies per genre. DVDs in the "Animation" genre are kept indefinitely by customers more than DVDs of any other genre. Those in the "Children" genre are kept less than any other.

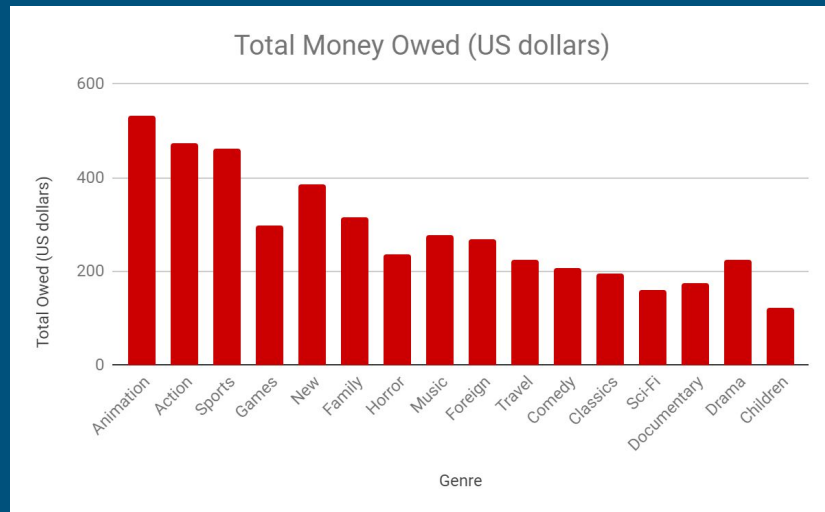


Fig 2. The chart above lists the amount owed by each genre for unreturned copies of DVDs. It is ordered exactly like the chart in fig 1 but it doesn't follow the same trend. This is because some DVDs are more expensive to replace than others, regardless of their genre.

ANS. Figure 2 lists how much money is owed due to unreturned movies by genre. If we add all of those individual amounts, the total value owed to the store is \$4,561.67

Who are the top spending customers? How do they compare to each other?

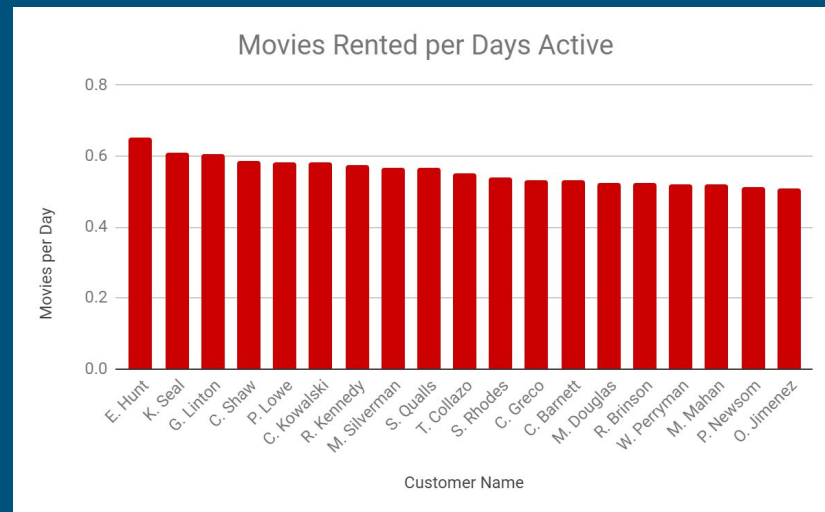
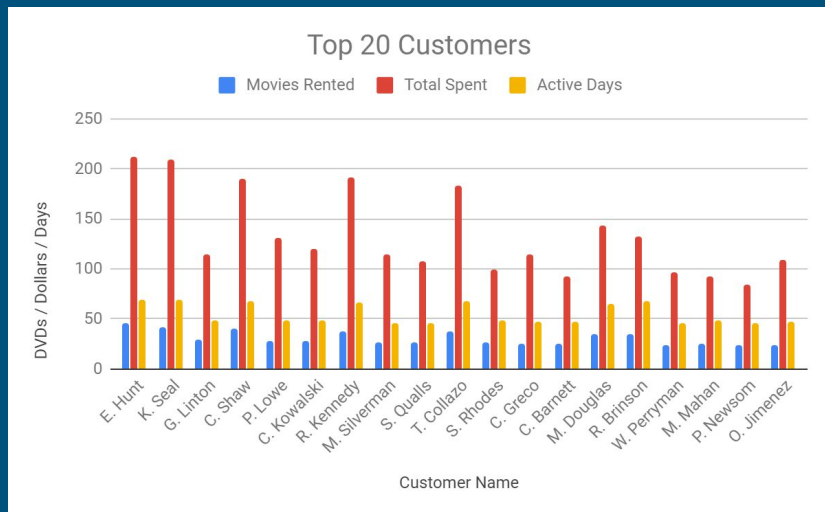


Fig 1. The chart above showcases characteristics for the top 20. They are ordered left to right from best to least best. It is not evident in this figure why each of them falls in that place, for that we need to look at figure 2.

Fig 2. The chart above shows the number of movies rented per customer divided by the number of days they have been actively renting movies in the store (number of days from their first rental to their last).

ANS. I chose this metric to rate the customers regardless of their total rentals or total spent because it ranks the best customer as the one who has rented the most amount of movies in the least amount of time, regardless of the price of the movie. Those customers are more active and More likely to keep on renting with the same frequency. Therefore, they are of higher value to the store.