

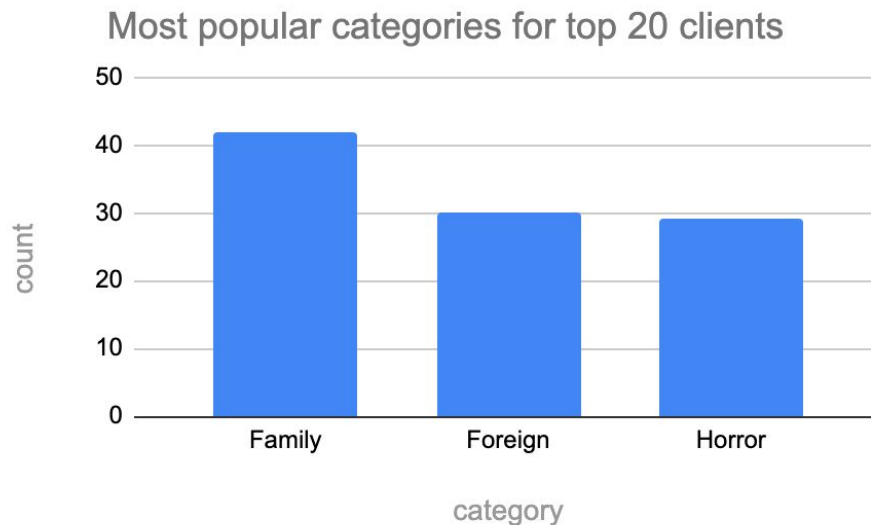
Question 1

For top 20 paying customers, what are the most frequently rented film categories? How many times those movies were rented (all time)? Final table should include category name, and number of times it was rented.

Answer: The most frequently rented film categories are 'Family', 'Foreign', and 'Horror' - checking rentals of top 20 paying customers.

Below table with category name and number of times it was rented:

category	count
Family	42
Foreign	30
Horror	29



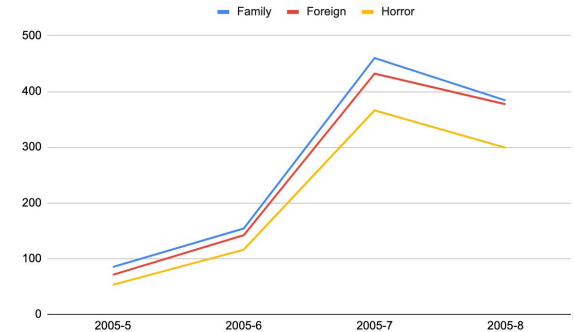
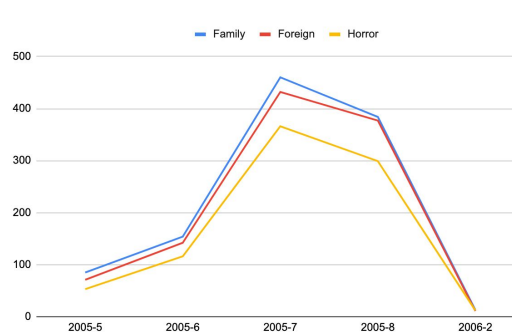
Question 2

For 3 top categories from Question 1 check how many movies were rented for each month?

month_year	category	rent_count
2005-5	Family	85
2005-5	Foreign	71
2005-5	Horror	53
2005-6	Family	154
2005-6	Foreign	142
2005-6	Horror	116
2005-7	Family	460
2005-7	Foreign	432
2005-7	Horror	366
2005-8	Family	384
2005-8	Foreign	377
2005-8	Horror	299
2006-2	Family	13
2006-2	Foreign	11
2006-2	Horror	12

Answer: On the left we can see the table with information how many times movies were rented for 3 top categories : 'Family', 'Foreign', and 'Horror'.

Also, below we can see two line plots. The first one includes information for '2006-2', which looks incomplete (probably it includes only part of the month). This is why the second plot was created - it presents number of movies rented between may 2005 and august 2005. As we can see, the best month was July. Also there is a change in plot - in August Foreign movies were rented almost as often as Family. This interesting - if we would have more data - for further months - we could check if the tendency would stay the same, or Foreign movies would be the most popular.



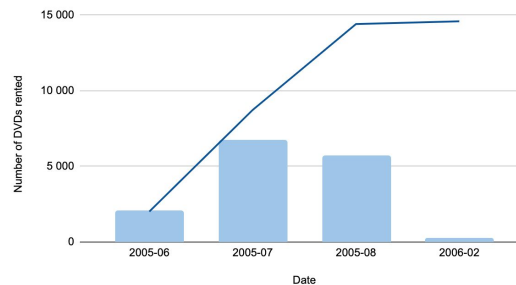
Question 3

For each month, I would like to find out what was the total sale, sum of dvds rented and also how monthly sum and sale increased each month. For which month sale was the biggest? Table should include year and month, sum of monthly sales, number of rented dvds, running monthly sale and running number of rented dvds.

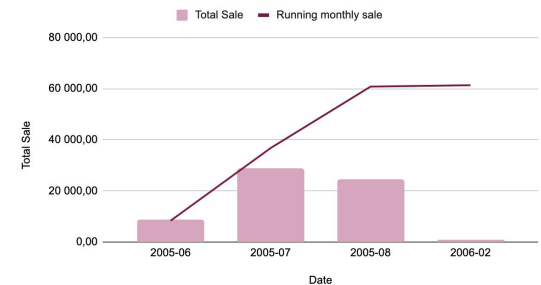
Answer: As presented below, the biggest sale was in July 2005.

Below table shows more detailed data - total sale, running monthly sale, number of DVDs rented each month, and running sum of rentals.

Number of DVDs rented per month



Number of total sales per month



year_month	total_sale	running_monthly_sale	rental_no	rental_monthly_sum
2005-6	8349.85	8349.85	2015	2015
2005-7	28377.87	36727.72	6713	8728
2005-8	24070.14	60797.86	5686	14414
2006-2	514.18	61312.04	182	14596

Question 4

Check how many times each DVD was rented. Is there a need to exchange any copy of the movie? Table should include inventory_id, film title, store_id, and number of times DVD was rented.

Answer: As we can see in the table on the right. DVDs copies were rented maximum times. There is no need to exchange them. It should be rechecked after some time - for example after a year..

inventory_id	title	store_id	count
270	Beast Hunchback	1	5
4296	Vanishing Rocky	2	5
2193	Jade Bunch	2	5
3524	Scorpion Apollo	2	5
1131	Dragonfly Strangers	1	5
2076	Idols Snatchers	2	5
2324	Kwai Homeward	2	5
971	Day Unfaithful	2	5
2546	Married Go	1	5
2985	Panky Submarine	2	5