



Codeflix Churn Rate

Capstone Project

Table of Contents

1. Get familiar with Codeflix
2. What is the overall churn rate by month?
3. Compare the churn rates between segments

Get Familiar with the
Company

1.1 Months

How many months has the company been operating? Which months do you have enough information to calculate a churn rate?

- Here we can see by running a quick min and max on the subscription start dates we find that the company began operating on December 1st 2016 and the last new subscription was on March 30th 2017 so it has been operating for four months.
- A member does not become active until after it passes the first day of a new month so there is enough data for 3 months worth, January to March 2017.

min(subscription_start)	max(subscription_start)
2016-12-01	2017-03-30

```
select min(subscription_start),  
max(subscription_start)  
from subscriptions;
```

1.2 Segments

By running a query grouping the data by segments find that there are two segments, 30 and 87.

id	subscription_start	subscription_end	segment
2000	2017-03-30		30
1994	2017-03-30		87

```
select *  
from subscriptions  
group by segment;
```

Churn Rate by Month

1.1 Overall Churn Trend

- If we run a query to find the overall churn rate it returns these results.
- We find that January 2017 had a (rounded) churn rate of .16, February one of .19 and March one of .27
- This trend is not positive for the company. An increasing churn rate means that the number of canceled subscriptions to active subscriptions is rising. However it is also likely explained by the small amount of data as only the first three months since the company began operating are being used. It is unlikely there would be fewer cancellations in the first month compared to the second or third.

month	churn_rate_total
2017-01-01	0.161687170474517
2017-02-01	0.189795918367347
2017-03-01	0.274258219727346

Churn Rate by Segments

1.1 Churn Rate by Segment

- If we run a query to find the churn rate by segment it returns these results.
- We find that while both segments' churn rates are increasing, segment 30 has a much lower rate overall ranging from approx. $\frac{1}{4}$ to $\frac{1}{3}$ that of segment 87.
- The company should focus on expanding segment 30. It's lower churn rate means that less users are cancelling compared to segment 87 and would be more profitable to the company everything else equal.

month	churn_rate_87	churn_rate_30
2017-01-01	0.251798561151079	0.0756013745704467
2017-02-01	0.32034632034632	0.0733590733590734
2017-03-01	0.485875706214689	0.11731843575419