codecademy

Capstone: Churn Rates

Learn SQL from Scratch

By: Steve Hermann

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1. Get familiar with Codeflix

1.1 Codeflix

Codeflix, which is a streaming video service startup, has tasked me with measuring their churn rate. I have identified some initial information about the company.

- The company has been operating for 4 months: 2016-12-01 to 2017-03-30
- I have located enough data to calculate the churn rate for January, February and March of 2017

min(subscription_start)
2016-12-01

max(subscription_start)
2017-03-30

```
Query to find min and max subscription start date:
 select min(subscription_start)
 from subscriptions;

 select max(subscription_start)
 from subscriptions;
```

1.2 Codeflix: Segments

By looking at the data for Codeflix, I was able to identify 2 segments of users.

- Codeflix has segment 30 and segment 87
- So we will be able to identify the churn rate for both segments for the first 3 months of 2017

segment
30
87

```
Query to find the distinct segments at Codeflix:
 select distinct(segment)
 from subscriptions
 group by segment;
```

2. Overall churn rate by month

2.1 Codeflix: Overall Churn Rate by Month

Looking at the Codeflix data I was able to calculate the churn rate overall for each of the first 3 months of 2017.

- Overall the churn rate for Codeflix has gone up each month of 2017
- The churn rate from February to March was significantly higher

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

3. Comparing the churn rates between segments

3.2 Codeflix: Churn Rates Between Segments Pt. 1

Diving deeper into the Codeflix data, I calculated the churn rate for each segment by month. This gave the company a better look at which where the churn was the highest.

- Looking at the numbers below, you can see that the churn rate for segment 30 is fairly low for each month compared to the churn rate for segment 87
- Segment 30 had a steady churn rate from January to February and a slight increase for March
- Segment 87 has a high January churn rate and it continues to go up in February and increases rapidly in March

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

3.2 Codeflix: Churn Rates Between Segments Pt. 2

After looking at the churn rate data and comparing the rates between the two segments. It is clear that segment 30 is the segment Codeflix should focus on expanding.

- Segment 30 has a low churn rate which indicates the service for this segment has been very good.
- Codeflix can focus on this segment to expand it's service and work on lowering the churn rate as well
- Segment 87 has a noticeably higher churn rate and would need further research on to determine what the cause of this high rate is

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