codecademy

Capstone: Churn Rates

Learn SQL from Scratch

1. Get familiar with Codeflix

1.1 What segments of users exist?

From looking at the first 100 rows in the subscriptions table, it appears like there are two segments of users:

- 30
- 87

```
SELECT *
FROM subscriptions
LIMIT 100;

/*From looking at the first 100 lines,
there appears to be be 2 segments; 30 and
87*/
```

1.2 How many months has the company been operating?

We have data for four months:

- December 2016
- January 2017
- February 2017
- March 2017

MIN(subscription_start)	MAX(subscription_end)
2016-12-01	2017-03-31

```
 SELECT *
 FROM subscriptions
 LIMIT 100;

 /*From looking at the first 100 lines,
there appears to be be 2 segments; 30 and
87*/

 SELECT MIN(subscription_start),
MAX(subscription_end)
 FROM subscriptions;

 /*We have data for four months: December
2016 - March 2017 */
```

1.3 Which months do you have enough information to calculate churn rates?

We can calculate churn rates for January, February and March since there is no subscription cancelations in December.

MIN(subscription_end)
2017-01-01

```
 SELECT *
 FROM subscriptions
 LIMIT 100;

 /*From looking at the first 100 lines,
there appears to be be 2 segments; 30 and
87*/

 SELECT MIN(subscription_start),
MAX(subscription_end)
 FROM subscriptions;

 /*We have data for four months: December
2016 - March 2017 */

 SELECT MIN(subscription_end)
 FROM subscriptions;

 /* We can only calculate the churn rate
for January onwards since the first
cancelation date is in January*/
```

2. What is the overall churn trend since the company started?

2.1 Overall Churn Trend

The churn rates appears to double each month since the company started:

- 98% increase from January to February
- 94% increase from February to March

month	churn_87	churn_30	Total
2017-01-01	0.0393939393939394	0.0127272727272727	0.0521212121212
2017-02-01	0.0819954128440367	0.0212155963302752	0.1032110091743
2017-03-01	0.150793650793651	0.0494505494505494	0.2002442002442

3. Compare the churn rate between user segments

3.1 Segment Comparison

Given that the churn rates are higher for the 87 segment, Codeflix should expand content for this segment in order to try and reduce the churn rate in this segment since it is over 3 times as large as the churn rate for the 30 segment.

month	churn_87	churn_30
2017-01-01	0.0393939393939394	0.0127272727272727
2017-02-01	0.0819954128440367	0.0212155963302752
2017-03-01	0.150793650793651	0.0494505494505494