codecademy

Codecademy Intensive

Learn SQL from Scratch

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02/05/2019

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1. Get familiar with Codeflix

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

The company has been operating for four months. It has been operating since December 2016 to the end of March 2017.
The company offers a free no cancellation time of one month, therefore there is no cancellation data available in December 2016. From then on, there is a three month of data available for churn rate calculation. (January, February and March)

test.sqlite

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

Query Results

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

Database Schema

subscriptions 2000 rows	
id	INTEGER
subscription_start	TEXT
subscription_end	TEXT
segment	INTEGER

- **What segments of users exist?**

There are two segments exist in the subscriptions dataset which are segment 87 and segment 30.

```
1  --finding the distinct segment names
2  select distinct(segment)
3  from subscriptions;
4
```

Query Results

segment
87
30

Database Schema

subscriptions	2000 rows
id	INTEGER
subscription_start	TEXT
subscription_end	TEXT
segment	INTEGER

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

The overall churn trend for the company is that it increased over time. From January to March the churn rate for segment 87 went up from 25% to 48.6% and in segment 30 it increased from 7.6% to 12%.

Query Results

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

Database Schema

subscriptions	2000 rows
id	INTEGER
subscription_start	TEXT
subscription_end	TEXT
segment	INTEGER

```
 with months as
(
  select
  '2017-01-01' as first_day, '2017-01-31' a
last_day
  union
  select
  '2017-02-01' as first_day, '2017-02-28' a
last_day
  union
  select
  '2017-03-01' as first_day, '2017-03-31' a
last_day
),
cross_join as
(select *
  from subscriptions
  cross join months
),
```

3. Compare the churn rates between user segments.

- **Which segment of users should the company focus on expanding?**

- Although churn rate of both segments increased at the end of three months of period, churn rate increased more in segment 87 than the segment 30. While churn rate in segment 30 was about 7.5% in January it decreased slightly to 7.3% in February and increased to about 11.7%. On the other hand churn rate in segment 87 continuously increased every month (January:25.2%, February:32%, March:48.6%).
- The company should concentrate why the customers didn't like the service in segment 87 and implement the strategies used in segment 30 in which the churn trend seemed low and stable.