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# CODEFLIX CHURN RATE

What the data tells us

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# Get familiar with the company

CODEFLIX has been operating for only 4 months since 2016-12-01. Of those months, there are only three months that provide enough data to show us churn. 2017-01-01 through 2017-03-31

1. Intro
2. Overall churn rate by month
3. Comparison of churn rates between segments
4. Conclusion

```
SELECT MIN(subscription_START)
from subscriptions
;
```

MIN(subscription_START)
2016-12-01

The logo for CODEflix, featuring the word "CODE" in a bold, red, sans-serif font, followed by "flix" in a red, lowercase, sans-serif font. A small red play button icon is positioned above the final 'x'.



# Churn Rate

The findings were concerning

## → Unexpected

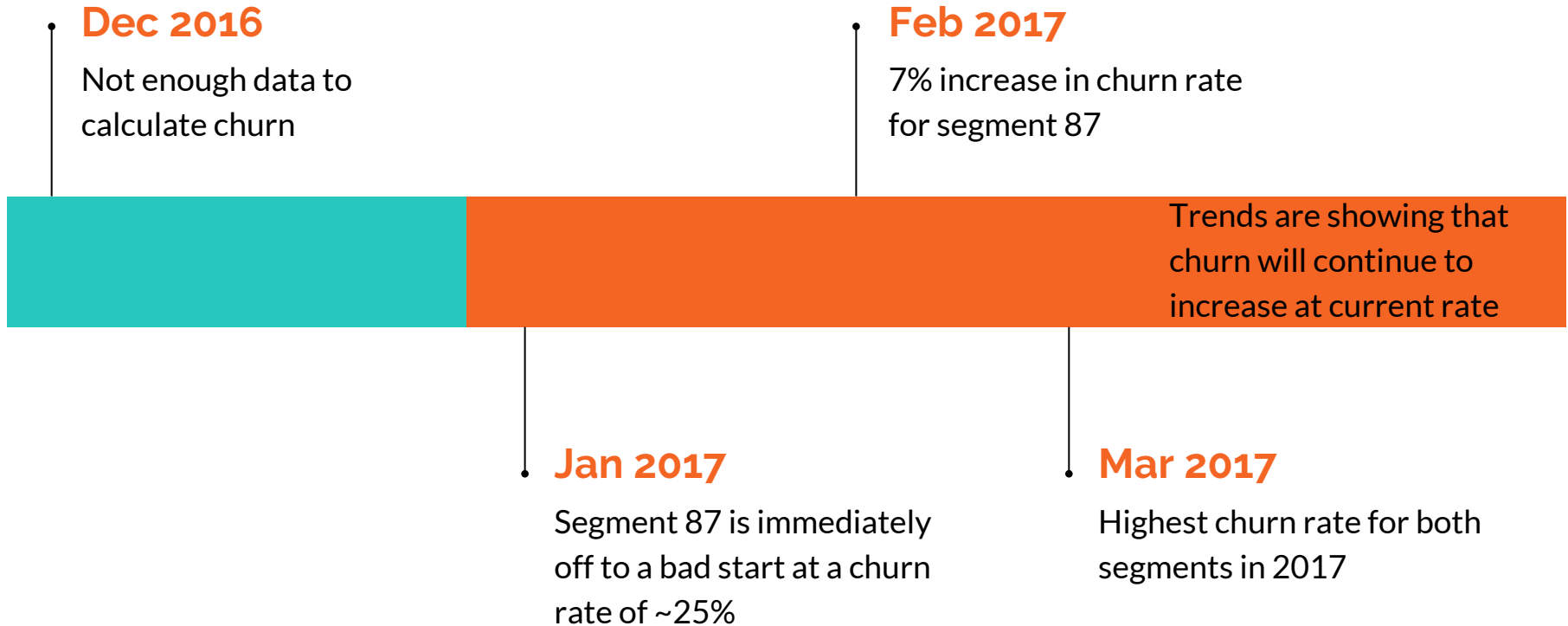
One of our segments is performing extremely well while the other segment is losing a quarter to almost half of subscribers each month.

## → Simple

One small change can drastically change the company churn rate

month	churn_rate_87	churn_rate_30
2017-01-01	0.252	0.076
2017-02-01	0.32	0.073
2017-03-01	0.486	0.117

# What is the overall churn trend since the company has started



# Comparison of Churn rates between User Segments

## Segment 87

- 25% - 48% churn rate over three months
- Steep and consistent downward slope

```
WITH months AS
(SELECT
  '2017-01-01' AS first_day,
  '2017-01-31' AS last_day
UNION
SELECT
  '2017-02-01' AS first_day,
  '2017-02-28' AS last_day
UNION
SELECT
  '2017-03-01' AS first_day,
  '2017-03-31' AS last_day
),
cross_join AS
(SELECT subscriptions.*, months.*
FROM subscriptions
CROSS JOIN months
),
```

```
status AS
(SELECT
  id,
  first_day AS month,
  CASE
    WHEN (subscription_start < first_day)
    AND (subscription_end > first_day OR
subscription_end IS NULL)
    AND (segment = 87) THEN 1 ELSE 0
    END AS is_active_87,
    CASE
    WHEN (subscription_start < first_day)
    AND (subscription_end > first_day OR
subscription_end IS NULL)
    AND (segment = 30) THEN 1 ELSE 0
    END AS is_active_30,
    CASE
    WHEN (subscription_end BETWEEN first_day AND last_day)
    AND (segment = 87) THEN 1 ELSE 0
    END AS is_canceled_87,
    CASE
    WHEN (subscription_end BETWEEN first_day AND last_day)
    AND (segment = 30) THEN 1 ELSE 0
    END AS is_canceled_30
FROM cross_join),
status_aggregate AS
(SELECT
  month,
  SUM(is_active_87) AS sum_active_87,
  SUM(is_active_30) AS sum_active_30,
  SUM(is_canceled_87) AS sum_canceled_87,
  SUM(is_canceled_30) AS sum_canceled_30
FROM status
GROUP BY month)
```

## Segment 30

- 7% - 11% churn rate over three months
- Churn rate was stable at 7% for two months but March's increase in churn is concerning

```
SELECT
  month,
  ROUND(1.0 * sum_canceled_87/sum_active_87, 3) AS churn_rate_87,
  ROUND(1.0 * sum_canceled_30/sum_active_30, 3) AS churn_rate_30
FROM status_aggregate
;
```

# Segment 87

## Findings

Segment 87 is performing very poorly. The best month only retained 75% of subscribers and the worst month lost almost half of all subscriptions.

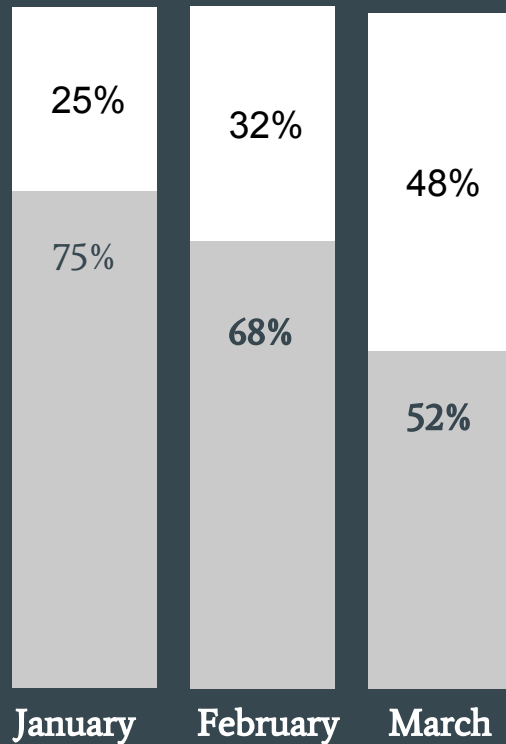
### Implications:

- The steady decline from January to February is concerning and begs the question as to what is wrong with the user experience in segment 87.
- The increase in churn for the month of March coincides with that of segment 30.

Churn Rate  
Total Subscriptions



Subscriptions



# Segment 30

Churn   
Retained 

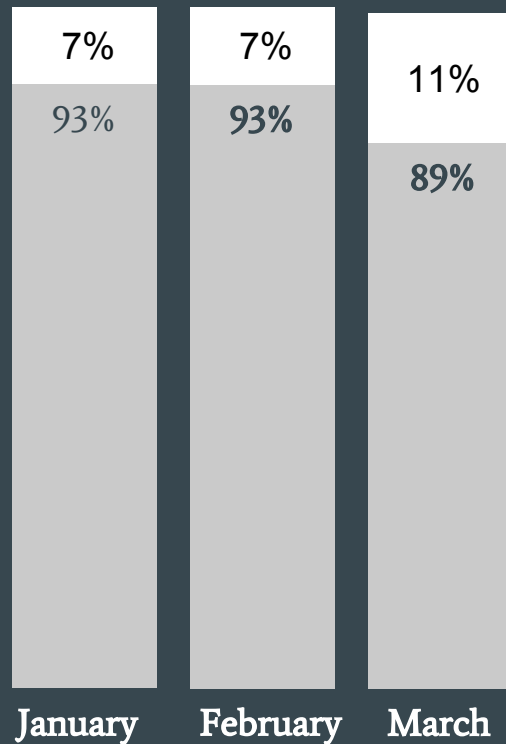
## Findings

Segment 30 has been incredibly successful at retaining subscribers but with a notable increase in churn in March

### Churn Rate:

- Churn rate is very low with only 7% of subscriptions in Jan. and Feb. canceling and 11% cancellations in March.
- The sudden increase of cancellations in March should be something to look into.

### Subscriptions



# Suggested Action

Segment 30 has shown a consistently low churn rate and if Codeflix will take their focus off of Segment 87 and put all of their efforts towards Segment 30 then they will be able to dramatically decrease the amount of canceled subscriptions each month.

Segment 87 should be immediately terminated so that Segment 30 can thrive for Codeflix even more than it has been and Codeflix will then see steady growth.