Mobile Application KPI Analysis

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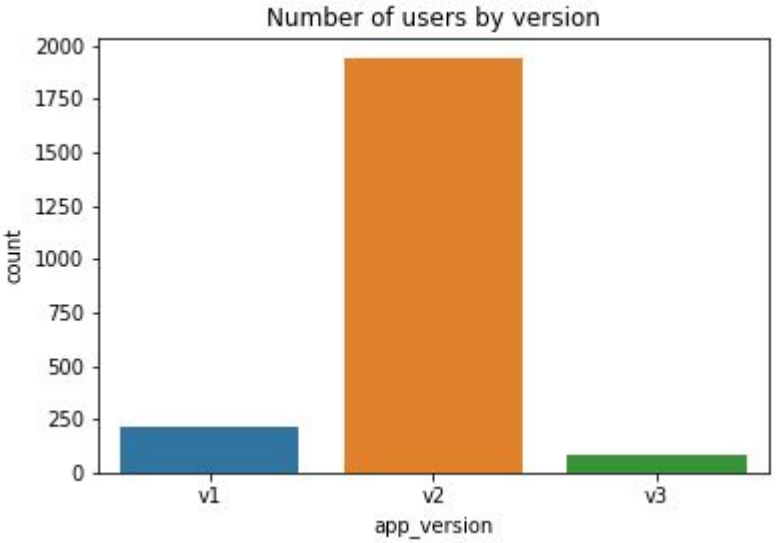
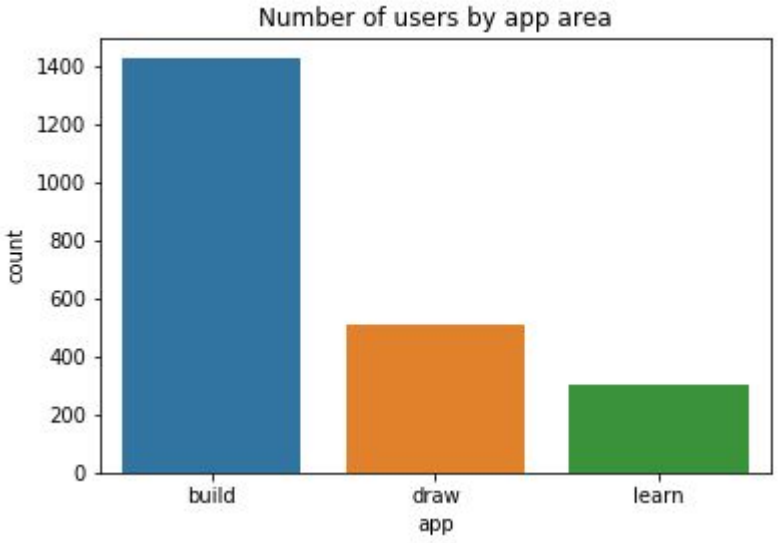
Introductory Overview

- In this analysis, high level KPIs are investigated to understand user behaviour and how they improve for different versions of the app.
- Below KPIs are analyzed in detail from different angles to reveal insights:
  - User
  - Installation
  - Retention
  - Session

Number of Users

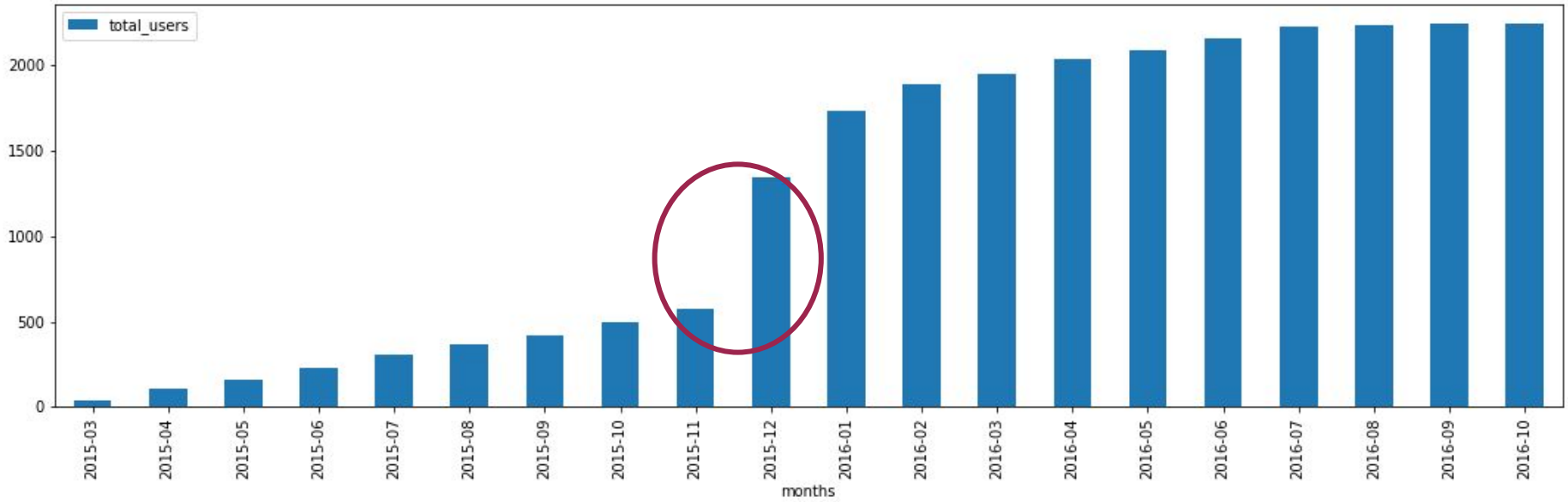


The version 2 has the biggest number of users so far.



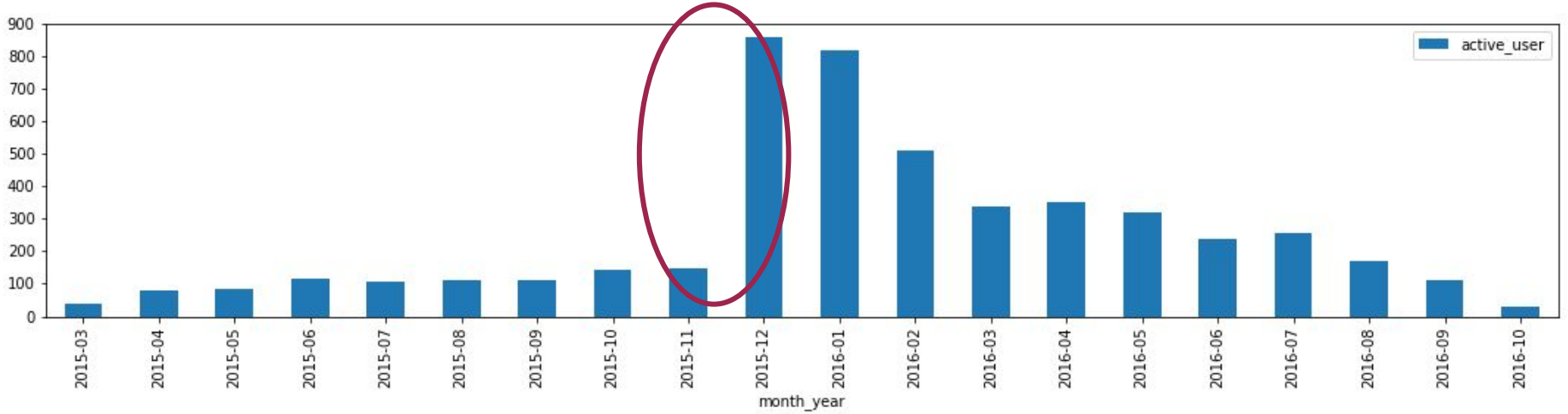
The ‘build’ area is the most used area of all time in the app.

Number of Users



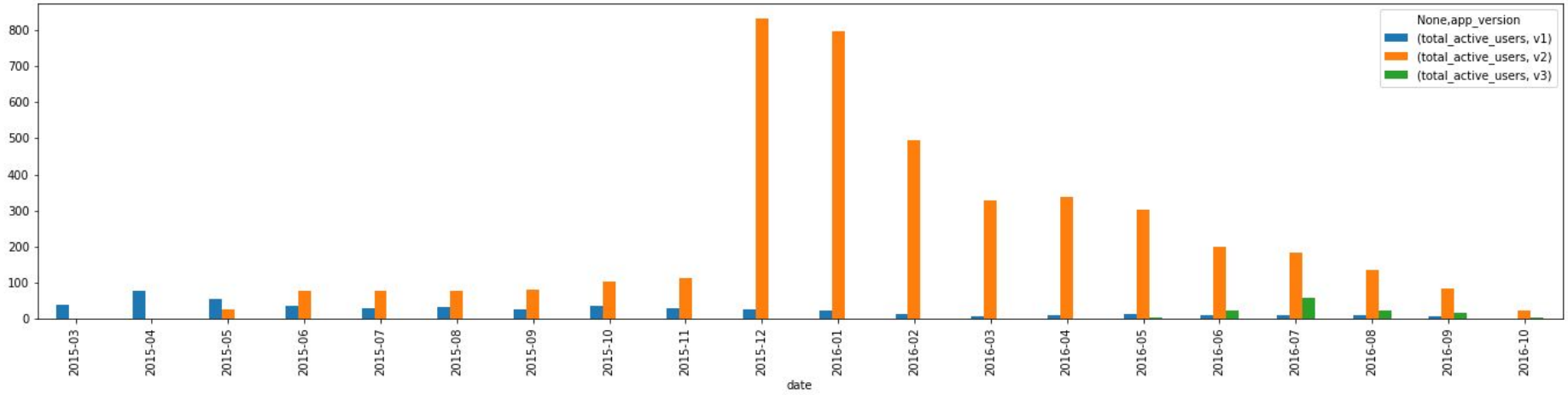
Here is the cumulative number of all users from the March 2015 to October 2016. There is a huge increase between 11-2015 and 12-2015. While a very consistent increase can be seen between the dates 03-2015 and 11-2015, the increase gets slower after that point.

Monthly Active User



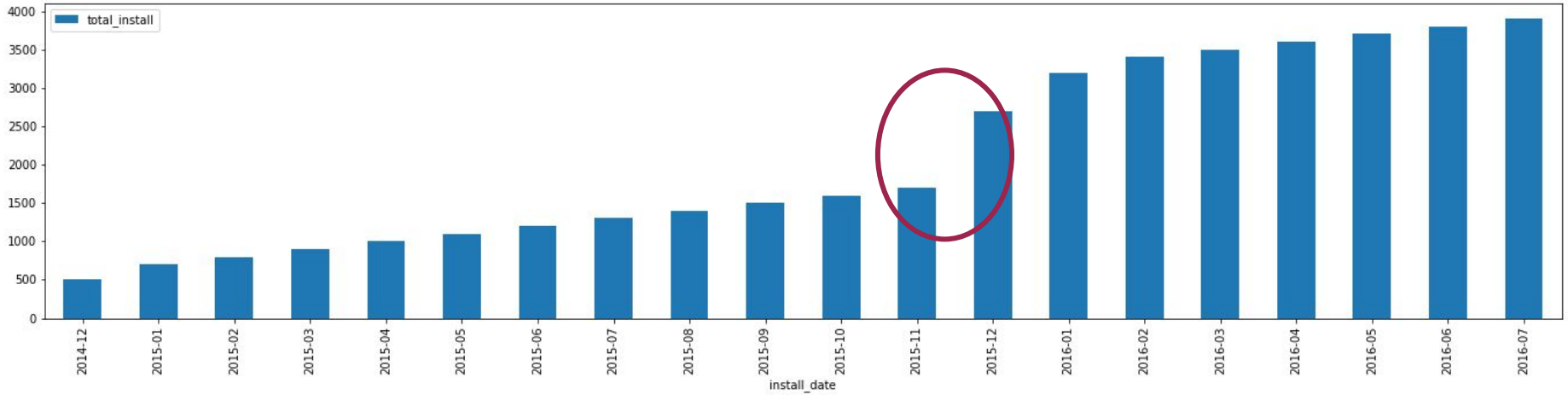
In monthly active user chart, the same consistent behavior can be seen again. After the huge user acquisition in 12-2015, the number of monthly active users decrease to a similar level with 03-2015.

Monthly Active User by Version



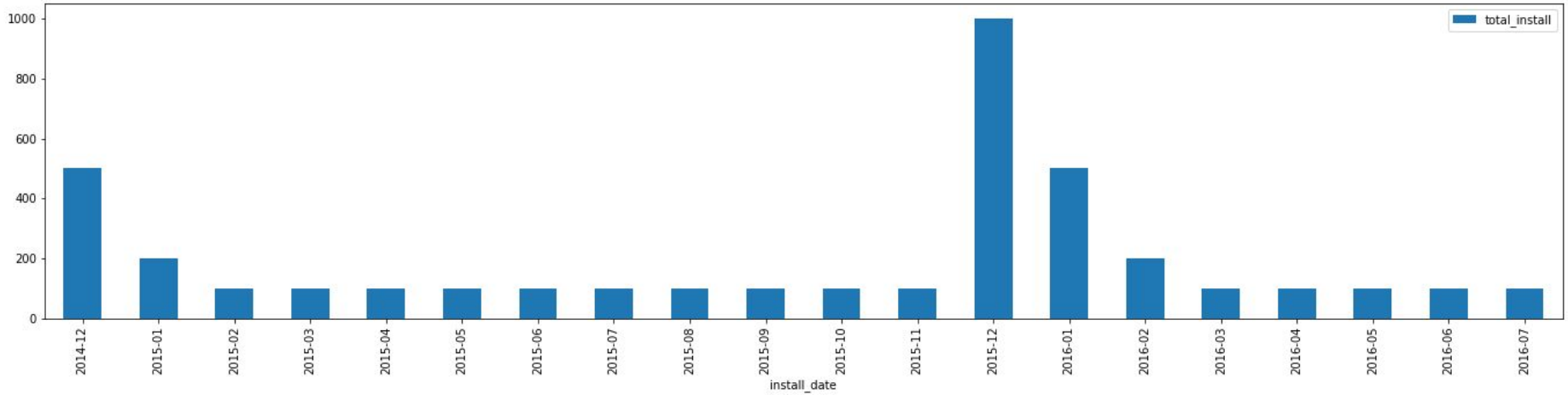
As it is mentioned, the version 2 is the most used version of all time. Although the version 3 was released in 04-2016, the version 2 is still the most used one.

Number of Installations



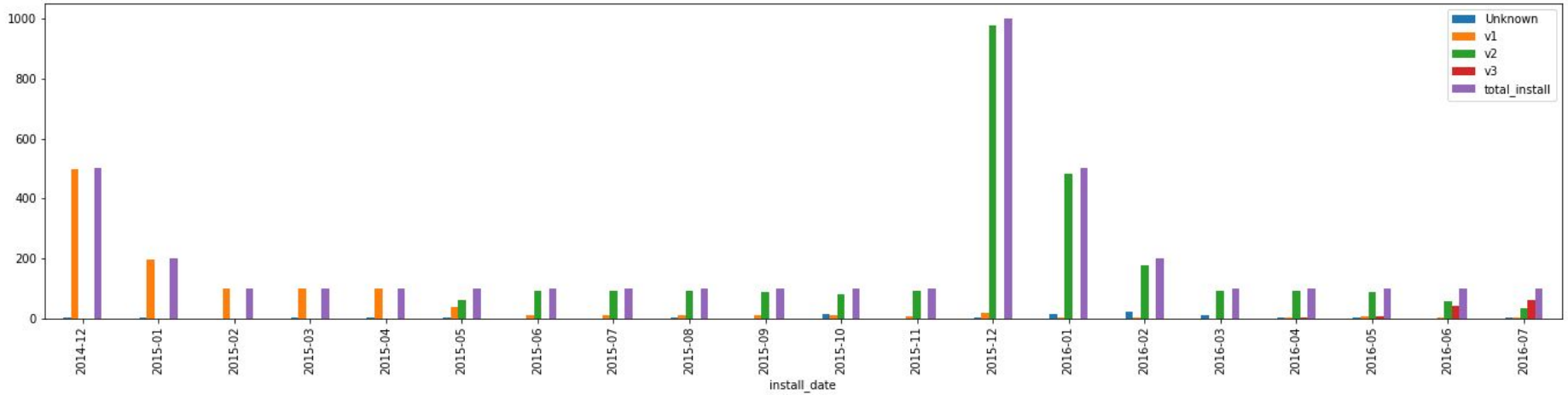
The figure shows the cumulative number of install. We may see that the install numbers are much higher than the number of users. The reason might be that all users do not have user accounts, or one account installs the app multiple times.

Monthly Installations



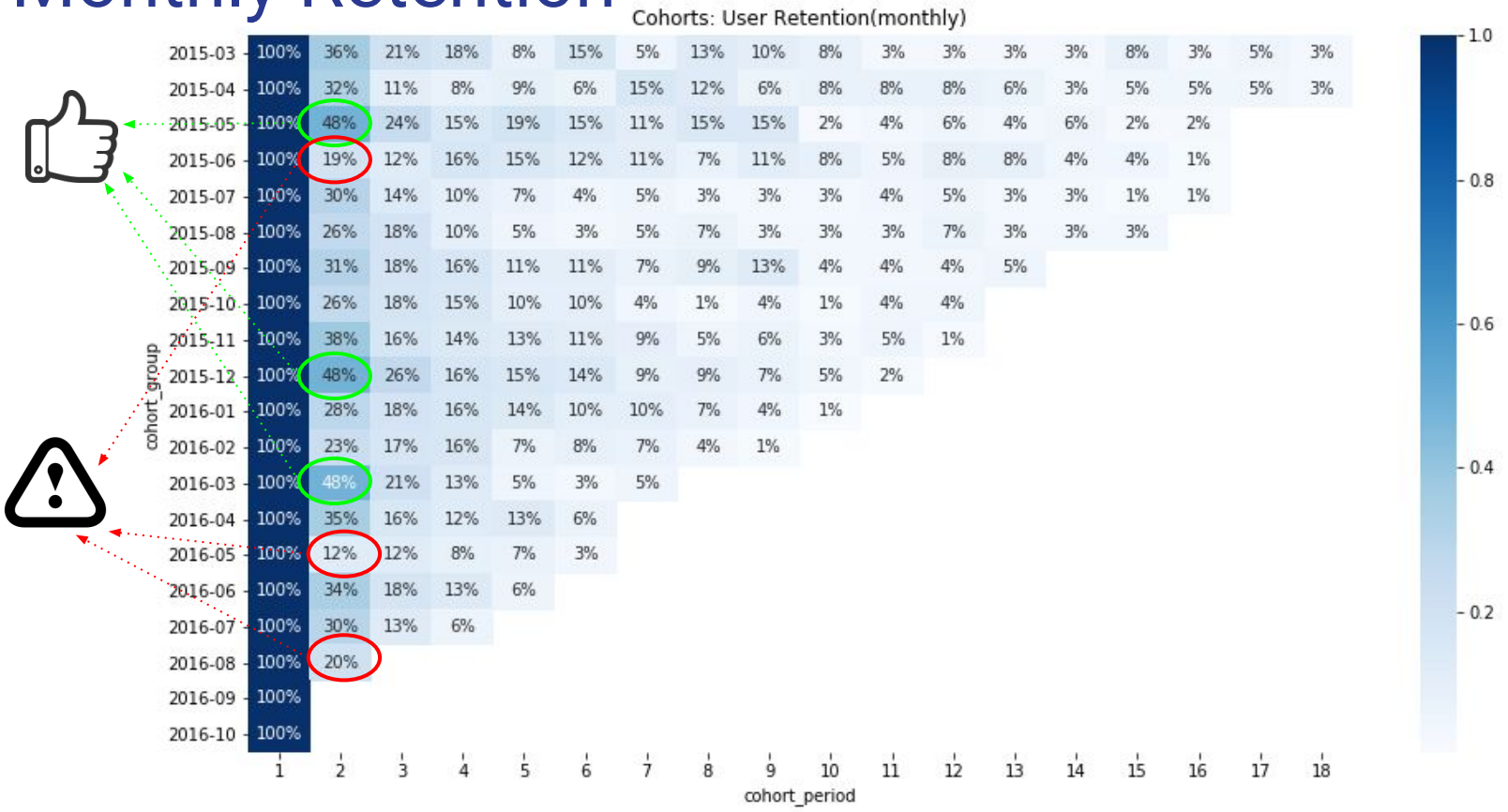
The figure shows the number of monthly installations. The most-installed month was the 12-2015 that the user acquisition was made with huge numbers.

Monthly Install by Version

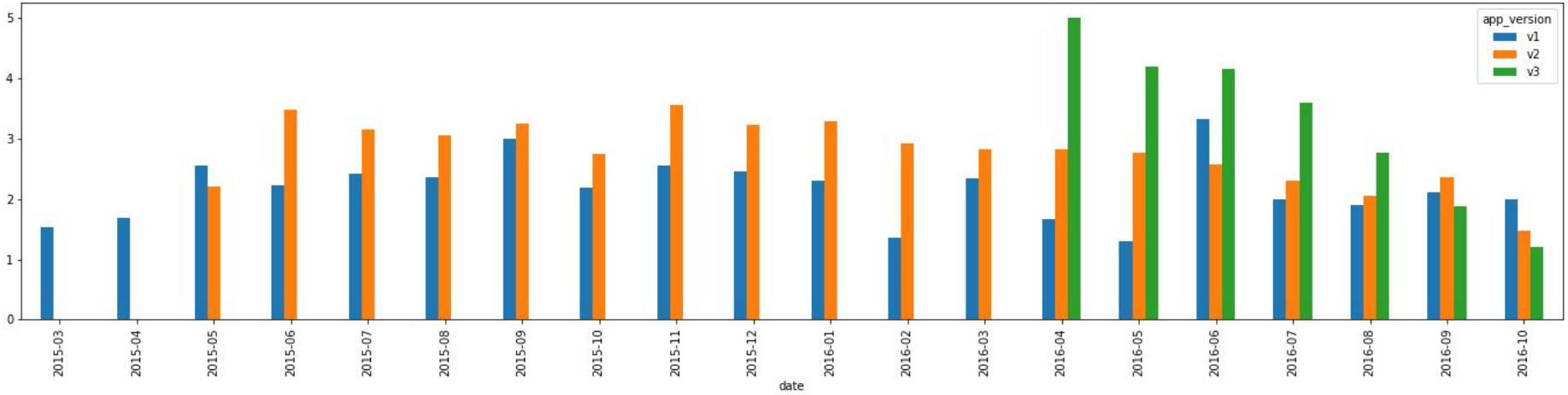


The total install and version 2 are always close to each other. Here, the behavior is consistent with the monthly active user figure.

Monthly Retention

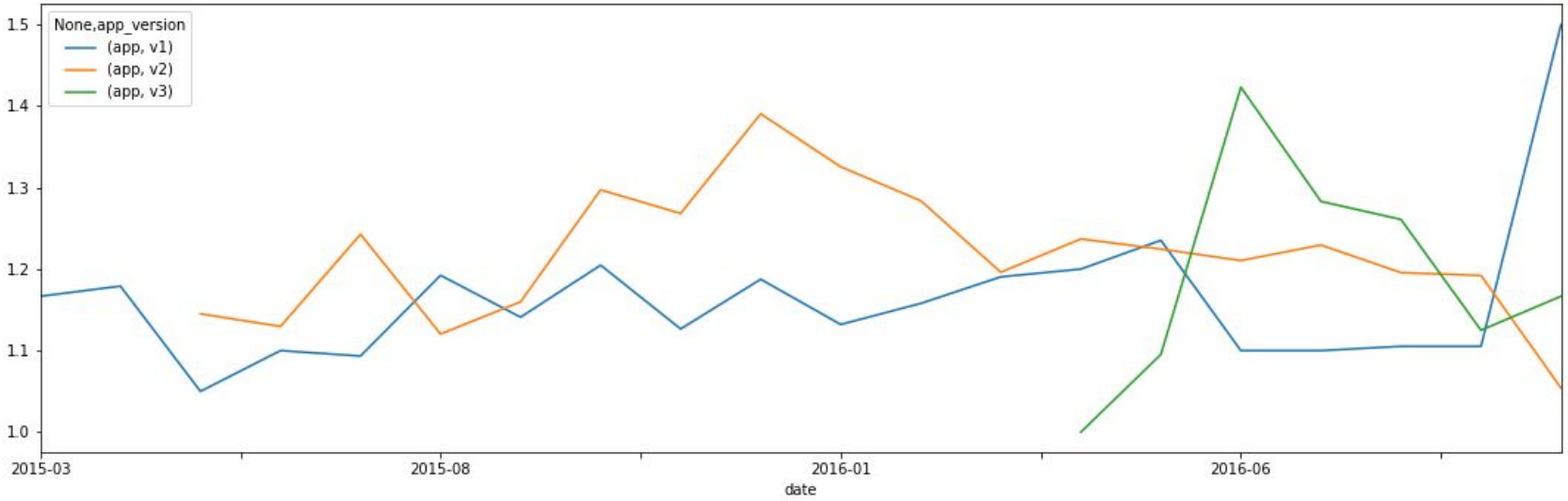


Monthly Session Counts per User



This metric shows the monthly average session count per user. For 03-2015, a user has 1-2 sessions in average. The numbers increase for both version 1 and version 2 while it decreases for version 3. There might be some improvement made to decrease multiple usage.

App Area Counts per Session



This metric shows the number of app area visited when a user has a session. The results are similar for all versions. We may say that users use the app only for specific areas and do not use other areas efficiently. This has been changed a little with ***version 2 in 01-2016*** and ***version 3 in 06-2016.***

Time in Application

Version	Session Counts	Average Time per Session
v1	1086	26.5
v2	12558	30.3
v3	454	33.0

In order to understand the behavior, **time length** is another important metric to be reviewed.

This figure shows the number of all sessions in the dataset and their average time lengths. We have the highest number of session count for version 2 as the install and user numbers are also the highest.

Despite of the decrease in monthly session counts (see page 11), average time per session still increases with newer versions.

Time in Application

	COUNT OF SESSION LENGTHS			% OF SESSION LENGTHS		
Time(min)	**V1**	**V2**	**V3**	**V1**	**V2**	**V3**
0 - 1	84	945	38	% 8	% 8	% 8
1 - 5	200	2132	84	% 18	% 17	% 19
5 - 10	154	1580	42	% 14	% 13	% 9
10 - 30	322	3715	137	% 30	% 30	% 30
30 - 60	182	2275	64	% 17	% 18	% 14
60 - 480	144	1905	89	% 13	% 15	% 20
480+	0	6	0	0	<% 0.05	0

For all three versions of the app, %30 of the sessions fall between 10-30 minute length.

Further Work

- The analysis can be continued with in-app purchase data in order to get:
  - Average number of days to first purchase
  - Average revenue per user
- In-app search results (the most searched words by users).
- Churn prediction algorithms can be applied to predict which customers will churn.
- User sign-up (register) ratio to total installs.
- Crashed sessions and unresponsive behaviours in the app.
- Screens per session.