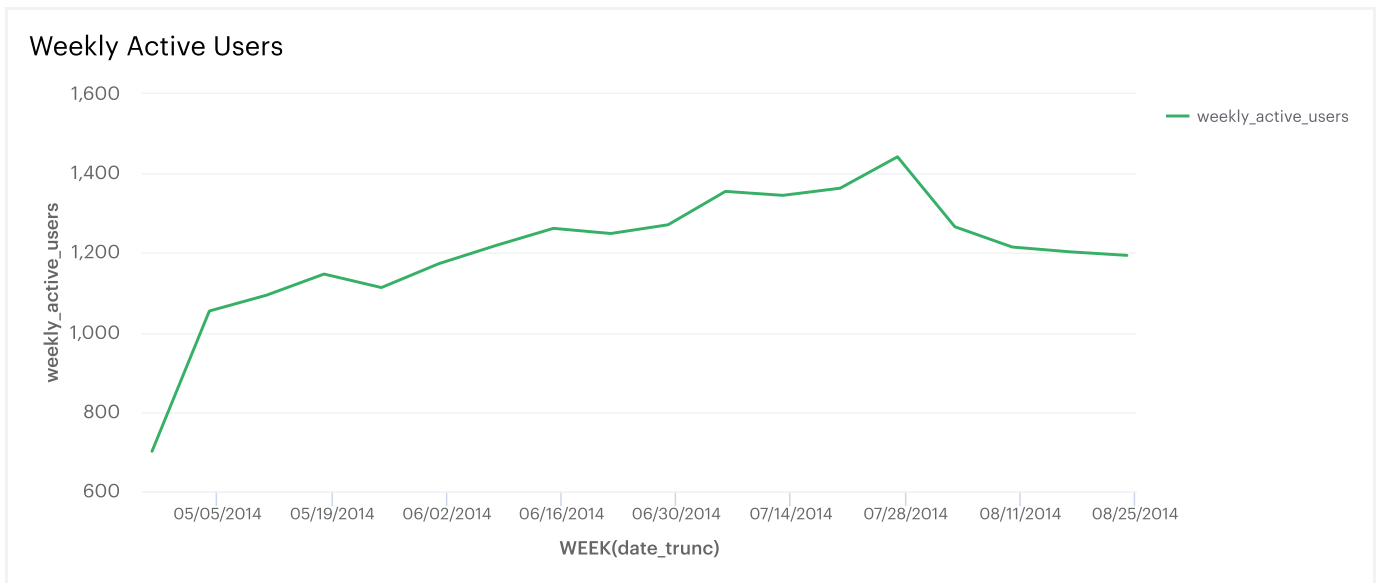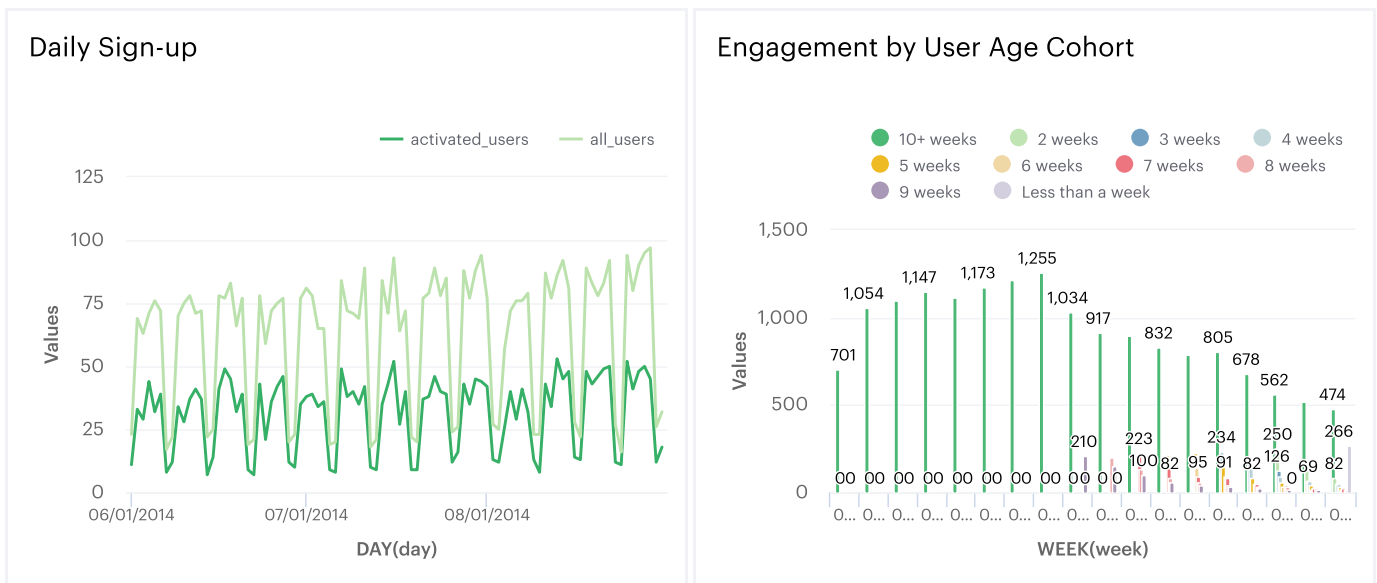# Investigating a Drop in User Engagement

AIM: FIND THE POSSIBLE CAUSES FOR THE DROP IN THE LATEST ENGAGEMENT ACTIVITY

***check the rationale for developing these charts for analysis in .sql file*

Weekly Active Users

#1 check whether the drop in new users or old user retention

Daily Sign-up

Engagement by User Age Cohort

*From Daily Signups, it could seen, new users still continue growing, but in Engagement by User Age Cohort, old users activity count quickly dropped recently. => So probably the problem of drop has something to do with old user retention

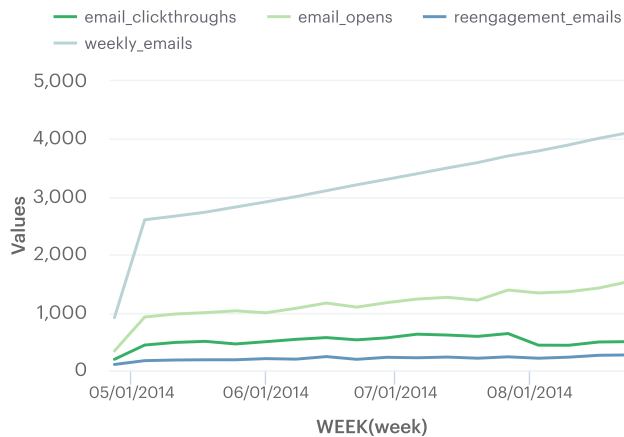**#2 check whether device counts for dropping**
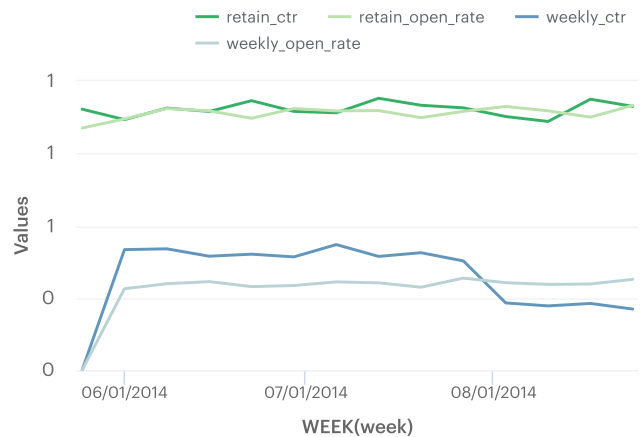
Weekly Engagement by Device Category
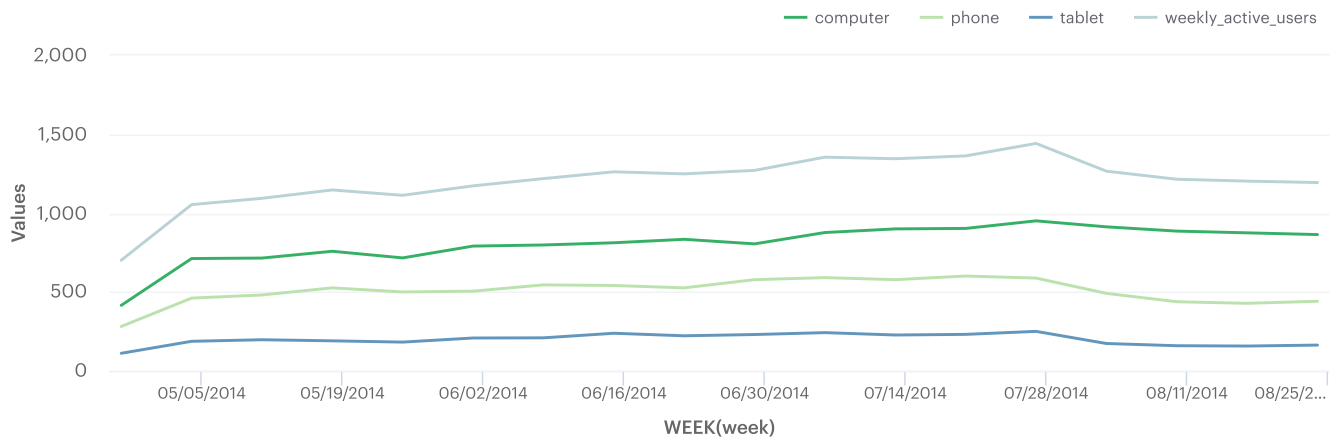
*Phone counts for the biggest part of dropping. => So, there can be some problems with mobile app related to long-time user retention

#3 As the problem may be related to user retention, check whether email has something to do with it

Email Actions

Open and CT Rates

*Analysis of the Email actions shows there is growth in sending weekly digest emails (probably new features) and drop in click through rate.
*Then detailed analysis is conducted to whether growth/problem of weekly digest email cause drop in click through rate through comparing with that with other email sending category (reengagement email sending) and other email action (open rate)
*only click through rate show clear drop with weekly digest email sending, so possibly something is wrong with weekly digest email

To sum up, from this preliminary analysis, the possible cause of the drop in user engagement is long-time user retention related, mobile app related, and weekly digest email related.