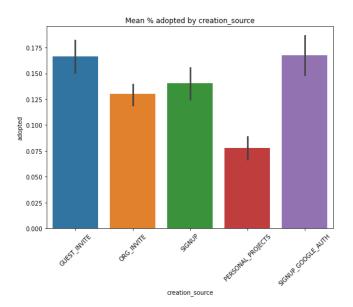
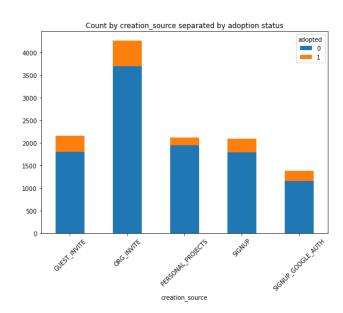
Of the **12,000** users who signed up for **Relax Inc.**'s project management software, approximately **13%** were **adopted**, defined here as having logged into the product on three separate days in at least one seven-day period. Here, we identify the factors most likely to predict future user adoption. The information provided includes account creation type (invited to join or signed up independently), creation time, and whether they signed up for marketing emails.

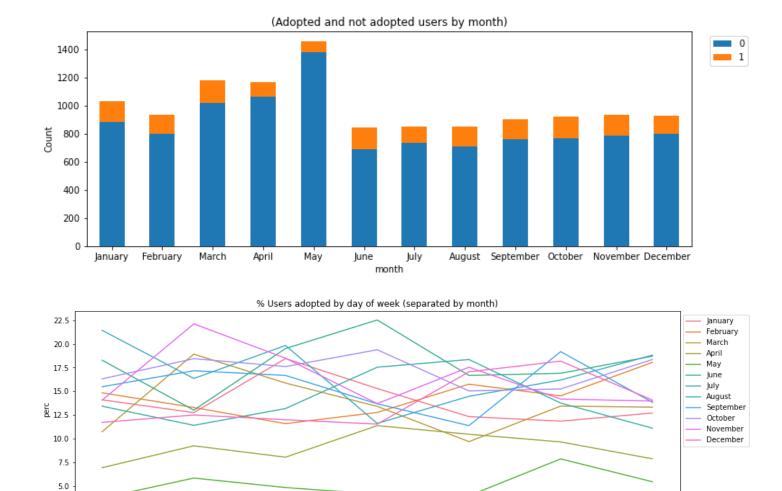
With exploratory data analysis, **creation source** was found to have a noticeable visual impact on adoption status. As seen in the right figure, most users joined through an **organization invite**. The least common account creation method was through **Google authentication**. In the figure to the left, we see that this group and users who joined via **guest invitation** have the highest mean percentage of being adopted. Users who were invited to join an existing user's **personal project** had the lowest average mean adoption rate.





Most users chose not to opt in to the mailing list or marketing drip, and neither of these factors displayed a noticeable effect on the mean adoption rate.

Creation time was looked at in more detail, with users separated by year, month, day of week, and hour of account creation. The percentage of adopted users seemed to fluctuate quite a bit by hour, displaying no clear pattern. Similarly, day of week didn't seem to have a strong effect on its own. When separating day of week patterns by month, some minor trends were detected. Across the three years of collected data, May displayed the highest total count of new users. Therefore, it has the lowest percentage adoption rate of all months.



User data was collected from May of 2012 to May of 2014. Therefore, the total count of users in 2013 is much higher than either other year, as it is the only full year in our table. Aggregated by month and year, we see that total users steadily increase from presumed launch in May 2012. This number stabilizes around June. There's a small but gradual increase in total user signups throughout 2013. In 2014, several large spikes of signups occur in February and April.

Friday

Saturday

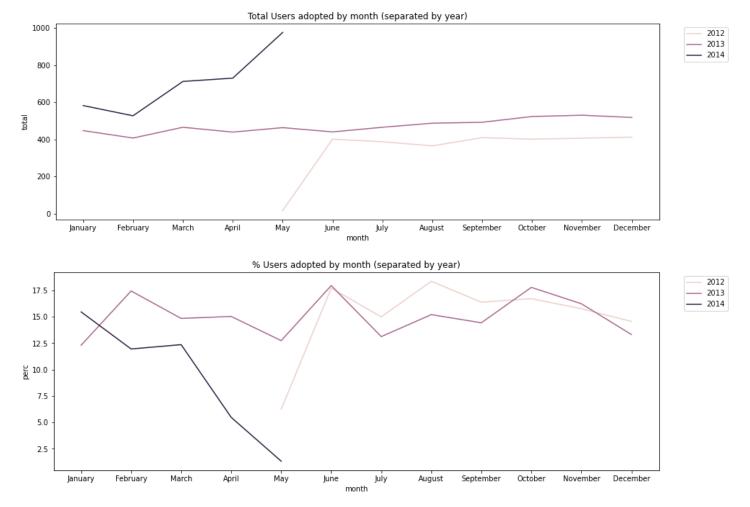
Sunday

Thursday

Monday

Tuesday

Wednesday



If we look at the percentage of adopted users aggregated by month and year, we see that this massive spike in user signups in early 2014 does not include an increase in adoption rate. Therefore, it seems many of these new users may have signed up as part of temporary projects. A further exploration of the interaction between creation source and creation time may be useful.

The provided table was limited, in that there weren't any useful numeric features, and most categorical features either a) didn't seem to have a strong impact on user adoption, or b) had too high cardinality to be useful for modeling. Therefore, it would be useful to have more information on **user behavior**, such as duration of time active per login session, number of active/complete projects, level of collaboration (e.g. small or large team). With this added information, building a predictive model would be possible.