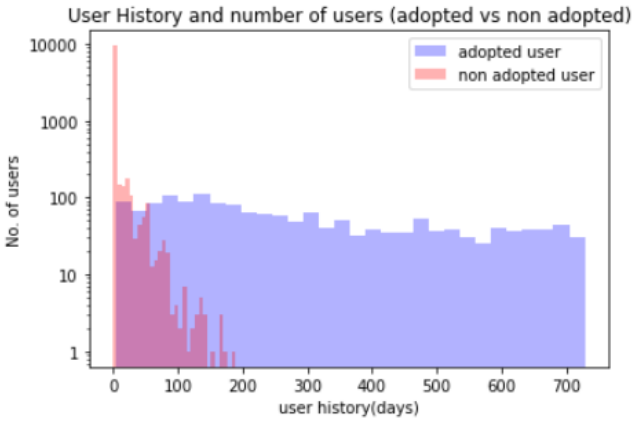
Relax Inc. Challenge Report

The datasets contained basic user information and engagement information. There are 8823 users and 207917 total logins. Among all the users, there are 1656 users are labelled to be “adopted”.

I used the Random Forest method to build the model and get the model testing accuracy to be 97%. The performance of this model is good. By checking the feature importance, I got the most important feature to be **history (91.47%)**.



User history (shown above) is defined as the number of days from account creation to the latest session. If a user has been using this product for more than 100 days, the user will have a higher chance to be an adopted user. If the user has been using this product for more than 200 days, the user will almost always be an adopted user.

One thing that need to pay attention here is that most users only use this product for a short time. And the user numbers quickly decreased over usage time. This product probably needs to do more to retain its users.

Based on this, I recommend that an effective way of growing adopted users might be encouraging existing users to log in and use the product after they had accounts for a while.

The next important feature is the **organization id**. This indicated that some organizations are very active, and the organization will require or attract users to log-in and maybe do some group projects or activities together. My recommendation is that the company could encourage or set up more group activities so the organizations will encourage its group members to login the product more often.

“Personal projects” from each creation source is the thirst important feature. However, based on the previous EDA, this feature has a very high chance to be a negative effect to "adoption rate". As Table 1 shows, the adopted rate for personal projects is the lowest. This might indicate that people do projects without a teammate has a higher chance to give up and stop using the product. My recommendation is that encourage the personal project users to find a teammate and do their projects together.

Table 1. The adopted rate for each creation source				
GUEST_INVITE	ORG_INVITED	PERSONAL_PROJECTS	SIGNUP	SIGNUP_GOOGLE_AUTH
0.1706	0.1349	0.0815	0.1447	0.1725