**Capstone 2 proposal draft**

Merchants sometimes run big promotions (e.g., discounts or cash coupons) on particular dates (e.g., Black Friday or China’s Double 11)" in order to attract a large number of new buyers. Unfortunately, many of the attracted buyers are one-time deal hunters, and these promotions may have little long-lasting impact on sales. To alleviate this problem, it is important for merchants to identify who can be converted into **repeated buyers**. By targeting on these potential loyal customers, merchants can greatly reduce the promotion cost and enhance the return on investment (ROI).

For this capstone project, data sets of merchants and their corresponding new buyers acquired during the promotion on the "Double 11" day were downloaded from Alibaba website. For instance, the data set contains anonymized users' shopping logs in the past 6 months before and on the "Double 11" day. Specifically, the probability that these new buyers would purchase items from the same merchants again within 6 months will be predicted based on the model built. Nevertheless, predictions of the numbers and the values of the repeated purchasing are not the goal of this analysis; however, it could be the potential direction for future more complicated analysis.