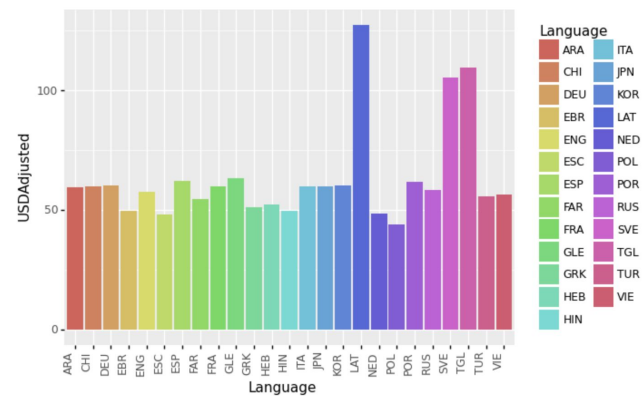


Rosetta Stone Business Analysis

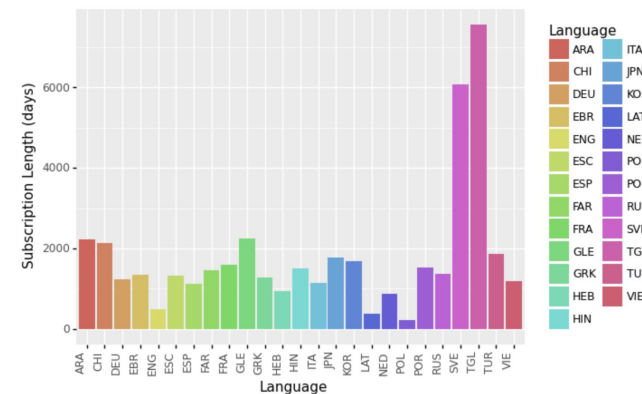
The Most Valuable Subscribers

- People who want to learn Latin, Swedish and Tagalog paid the most overall.
- Swedish and Tagalog learners are long term subscribers generally.
- Latin only has one option (12 months, \$95.00)

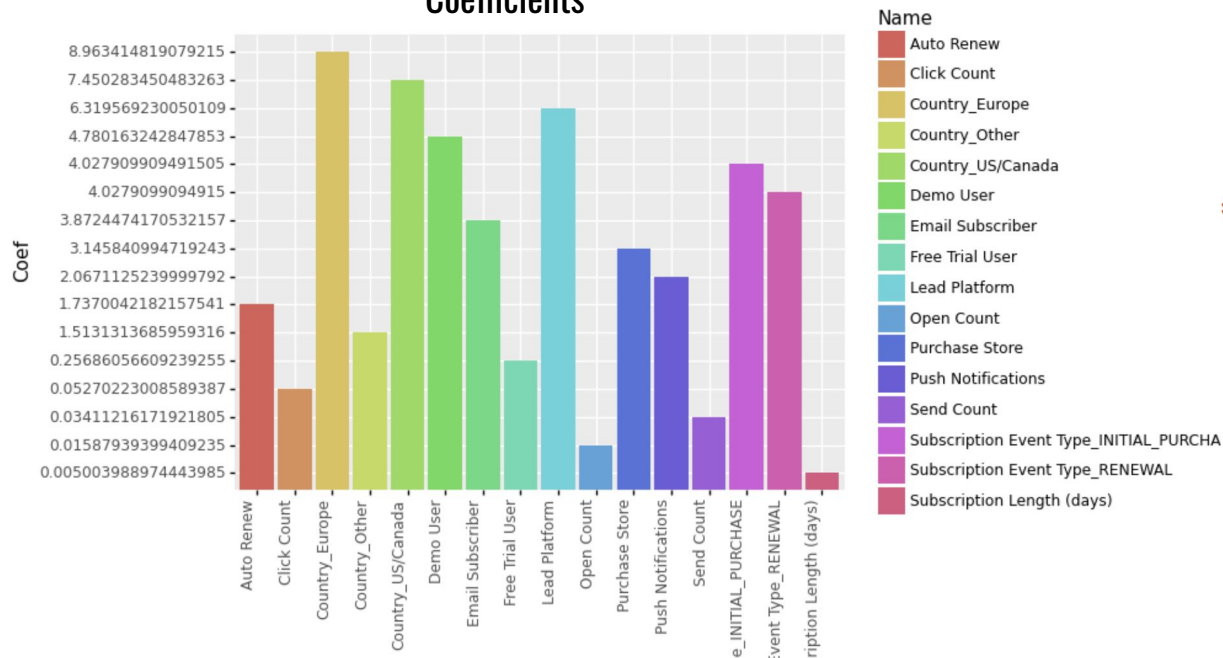
Average USD spent by language learned



Average subscription length by language learned



Coefficients



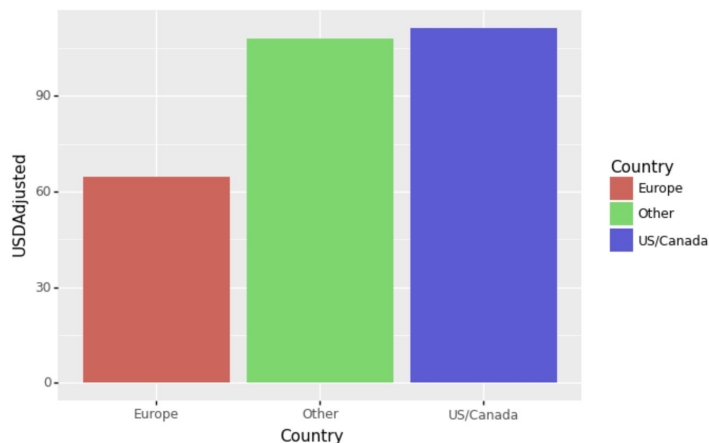
- People who live in the US & Canada and use Rosetta Stone on the web browser pay the most money
- Rosetta Stone is designed for in depth online language learning
 - People who want a more quick, app based platform use Duolingo

Results from Linear Regression Model (Python)

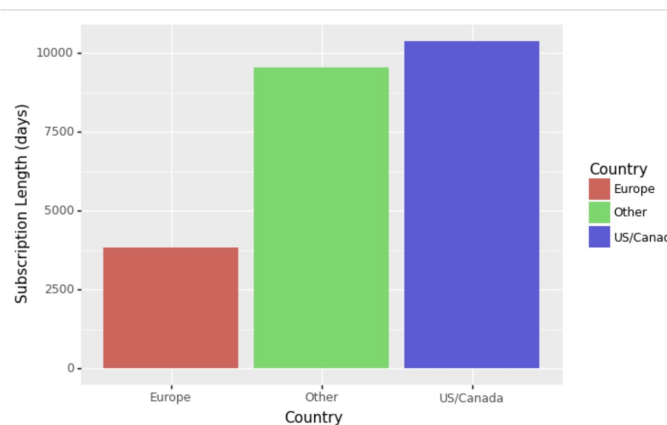
	Coef	Name
0	-3.14584	Purchase Store
1	4.78016	Demo User
2	0.256861	Free Trial User
3	1.737	Auto Renew
4	-6.31957	Lead Platform
5	-3.87245	Email Subscriber
6	-2.06711	Push Notifications
7	-0.0341122	Send Count
8	0.0158794	Open Count
9	0.0527022	Click Count
10	0.00500399	Subscription Length (days)
11	-4.02791	Subscription Event Type_INITIAL_PURCHASE
12	4.02791	Subscription Event Type_RENEWAL
13	-8.96341	Country_Europe
14	1.51313	Country_Other
15	7.45028	Country_US/Canada

US/Canada vs Europe

Amount Spent by Region



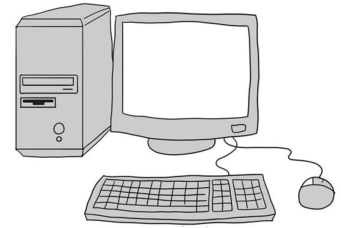
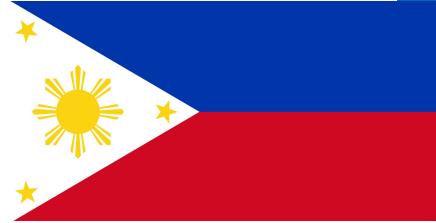
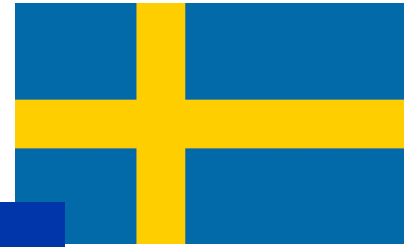
Subscription Length by Region



- US/Canada market is much more profitable than European market.
- Rosetta Stone is a US based company.
- Most Europeans already speak a second language & learn more language in school. Might be less demand for language learning platform like this.

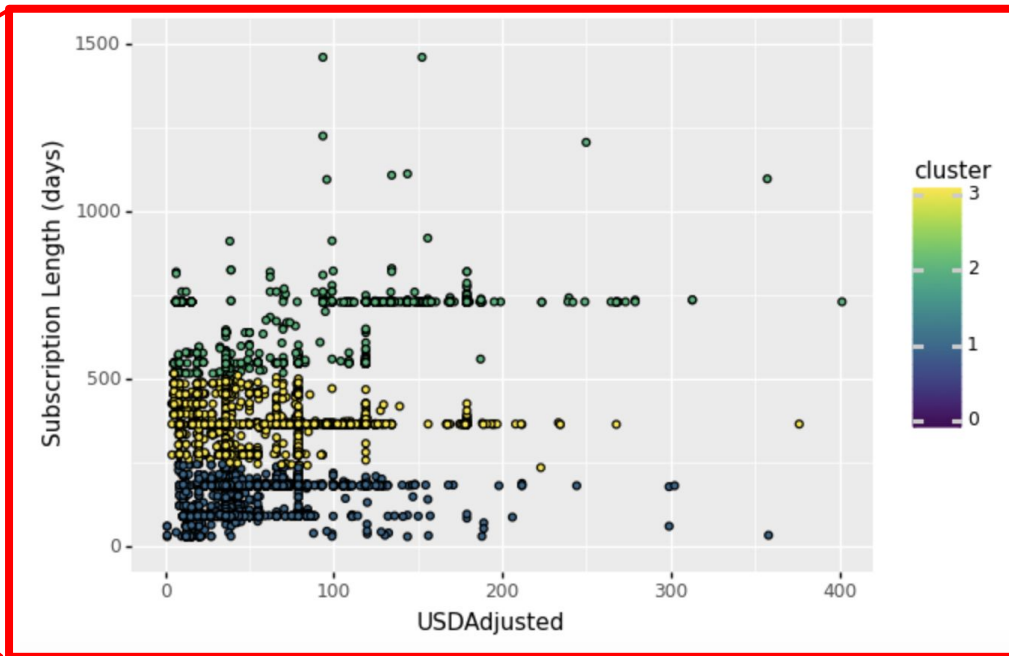
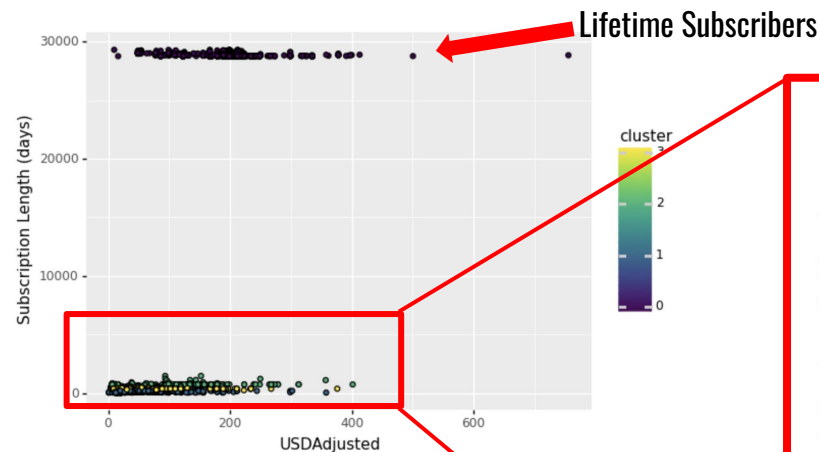
The Most Valuable Subscribers

- People who live in the US & Canada
- People who renew their subscriptions
- People who use the Rosetta Stone Website
- People who learn Tagalog and Swedish
- People who pay too much for Latin



Subscriber Segments

- We used K-Means Clustering
- Developed a Model to group people by segment

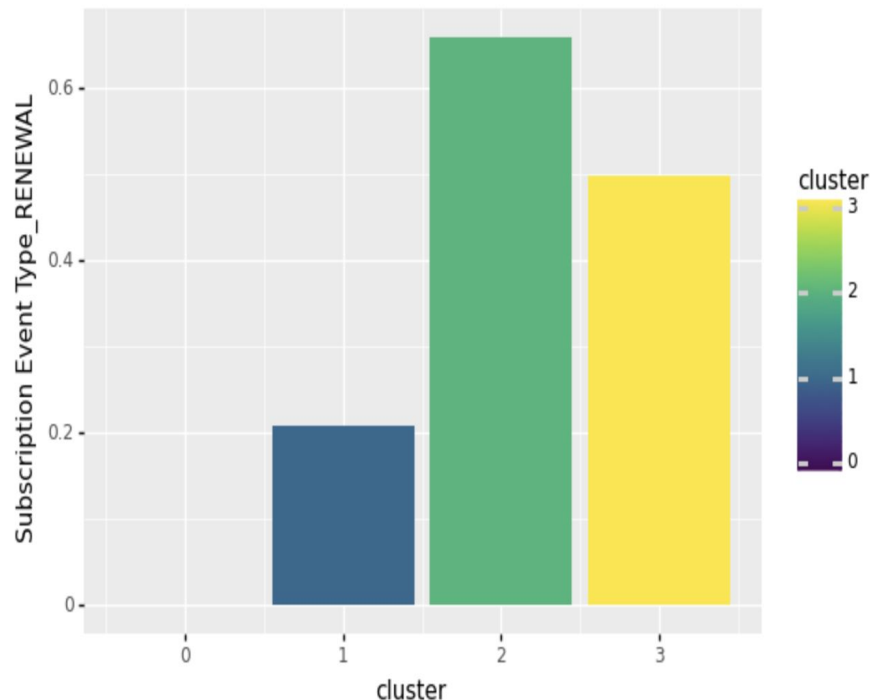


- We discovered 4 main subscriber segments
- Silhouette Score (Accuracy) of 0.8

Subscriber Segments

- **Cluster 0** represents lifetime subscribers
- **Cluster 2** represents **most valuable customers**.
Long term, high paying, more likely to have renewed - likely paid for multiple products/learnt multiple languages *[slide 5]*
- **Cluster 3** represents medium term low paying customers - base customers who likely paid for the basics, learned one language and cancelled subscription
- **Cluster 1** represents short term customers who likely tried out Rosetta Stone and cancelled because they didn't like it or didn't want to pay
- Not our target customer base

Number of people who renew by cluster



Subscriber Segments

- Cluster 0 & 2 represent *Most Valuable Subscribers*. They are more likely to use the Web Browser platform. More likely to be based in North America. People who learn Tagalog and Swedish are in this category.
- Cluster 1 & 3 More likely to use app or be based in Europe than other 2 clusters. They learn languages like Polish and English.



Identify Most Likely Subscribers to be Sold Additional Products/Services

- Cluster 0/Lifetime subscribers already have every language available.
- Cluster 3 & 1 are not likely to buy more than one language and do not subscribe for long.
- Cluster 2 subscribers are likely to buy multiple products/languages and renew subscriptions.

Identify Subscriber Profile of those Not Renewing

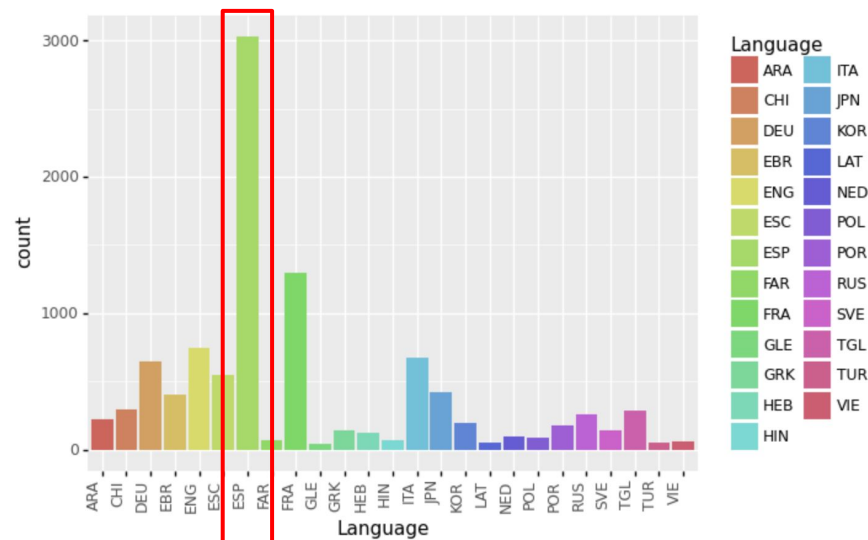
- **Clusters 1 and 3**
- Generally people who pay a low amount upfront are less likely to renew
- People who are app based are less likely to renew as it is not Rosetta Stone's primary market place
- People based in Europe .



Other Business Relevant Opportunities

- Spanish is the most commonly learned language
- Target people in who may want to learn Spanish with long term deals and subscriptions
- Target people in predominantly Hispanic/High Spanish speaking areas
- Offer an option for shorter than 12 month subscriptions for Latin

Number of People Who Learn Each Language



Conclusion

Suggestions for Rosetta Stone

1. Target the prime customers in cluster 2 who are likely to pay for more products in the long term
2. Focus less on Europe, more on the US & Canada
3. Target areas where it may be beneficial to learn spanish
4. Offer more deals to people who learn languages with high retention rates like Tagalog and Swedish
5. Target web users, focus less on mobile



Thank You