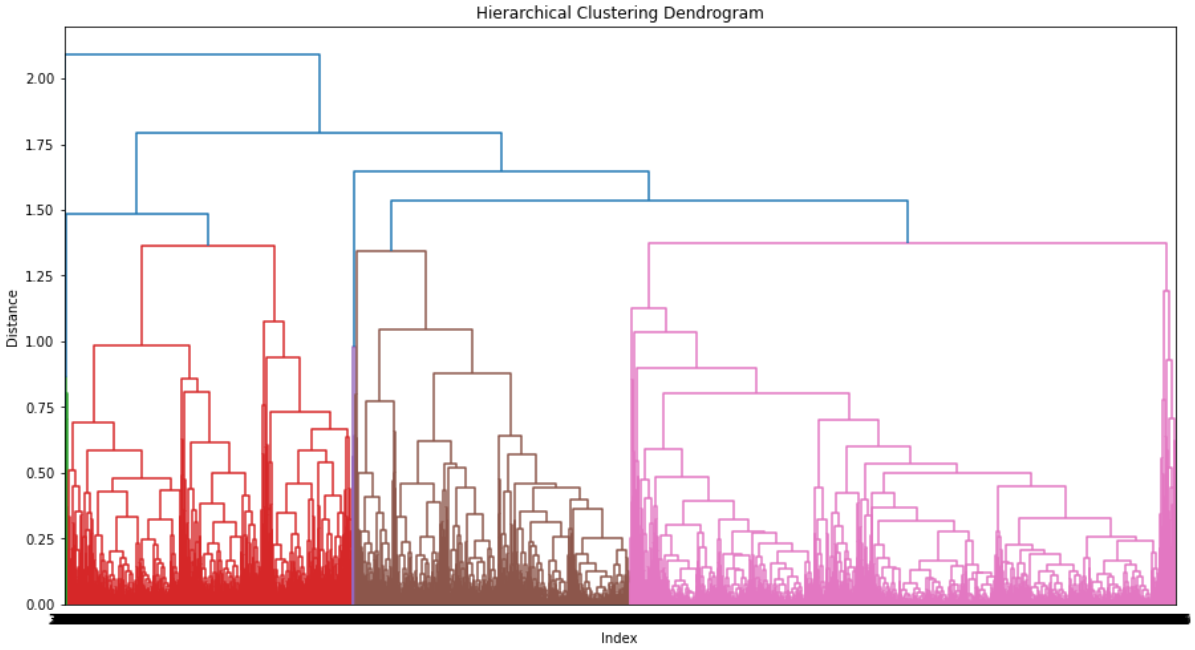
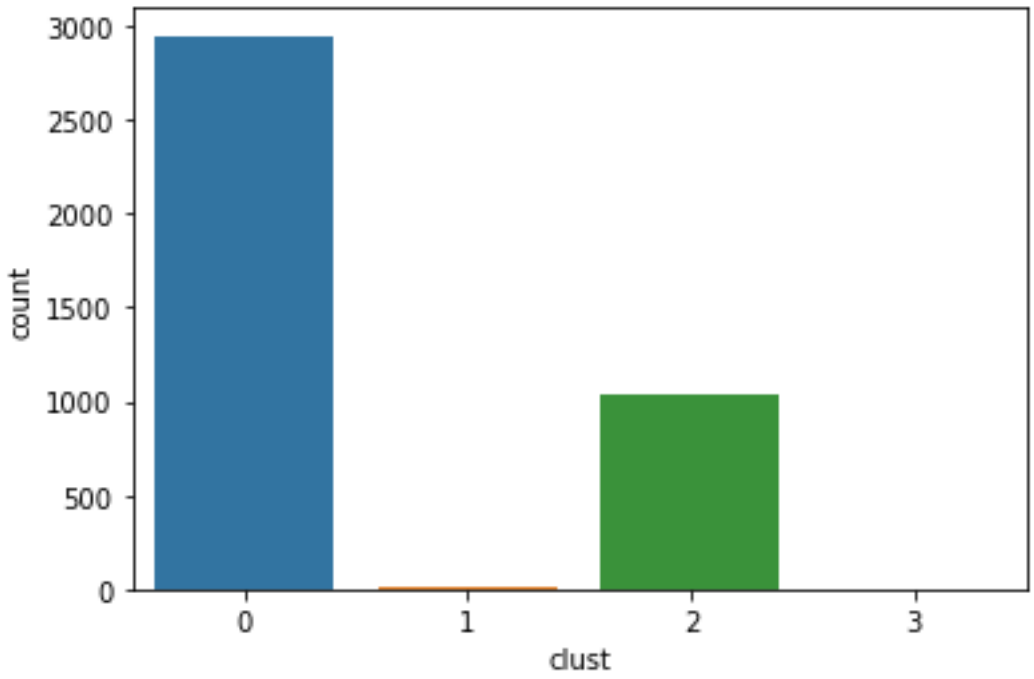
East-West Airlines is trying to learn more about its customers. Key issues are their flying patterns, earning and use of frequent flyer rewards, and use of the airline credit card. The task is to identify customer segments via clustering.

Answer:

Dendogram



Choosing 4 clusters:



Cluster Value Count:

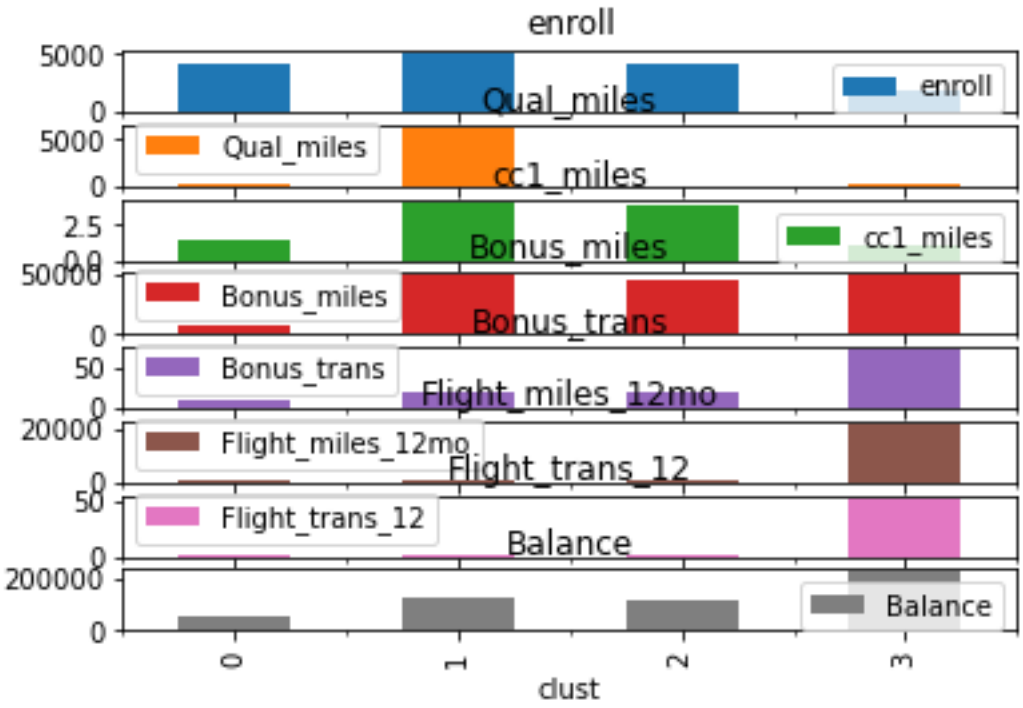
Cluster customer

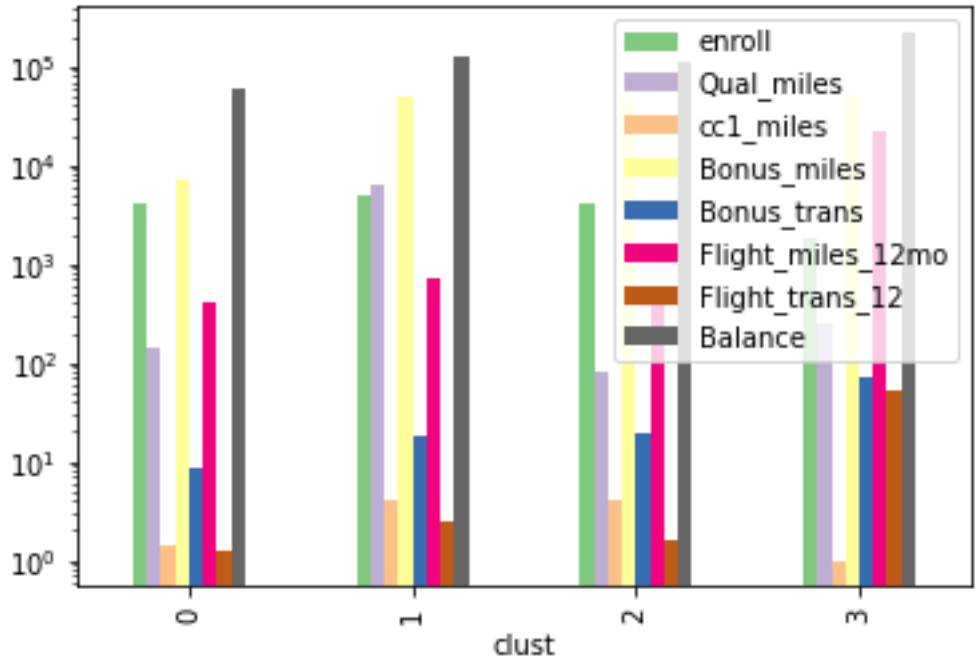
0 2949

2 1037

1 11

3 2





Inference:

Cluster 0 comprise of 73% of all their customers, followed by cluster 2, then cluster 1, least percentage is cluster 3.

Cluster 0 customers have lower than average values in all variables except DaysSinceEnroll. Relatively new customers that accumulate miles through non-flight transactions. They don't use the airline very often.

Cluster 1 customers have the highest DaysSinceEnroll, loyal members of this program. They accumulate the highest number of miles through non-flight transactions and frequent flyer credit card usage, that they are eligible for award as qualify as Top flight. However, they are not frequent flier in this airline.

Cluster 2 customers does not have the largest values in any of the variables. Relatively new customers that accumulate miles through non-flight transactions and frequent flyer credit card usage. They don't use the airline very often.

Cluster 3 belong to relatively new member because have the smallest value in DaysSinceEnroll. However, they are already accumulating a reasonable number of miles, mostly through non-flight transactions. They are the most frequent user of this airline, but not frequent user of airline credit card. They also accumulate highest number of miles eligible for award travel.