

Segmentez des clients d'un site e-commerce

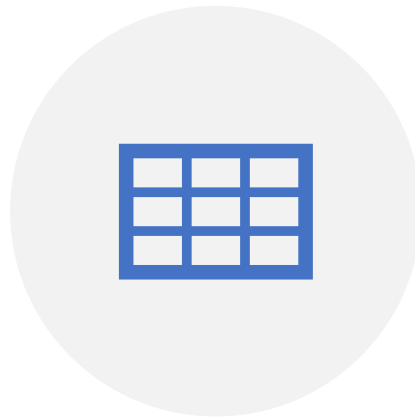
Emanuele Partenza



Projet :



FEATURE ENGINEERING

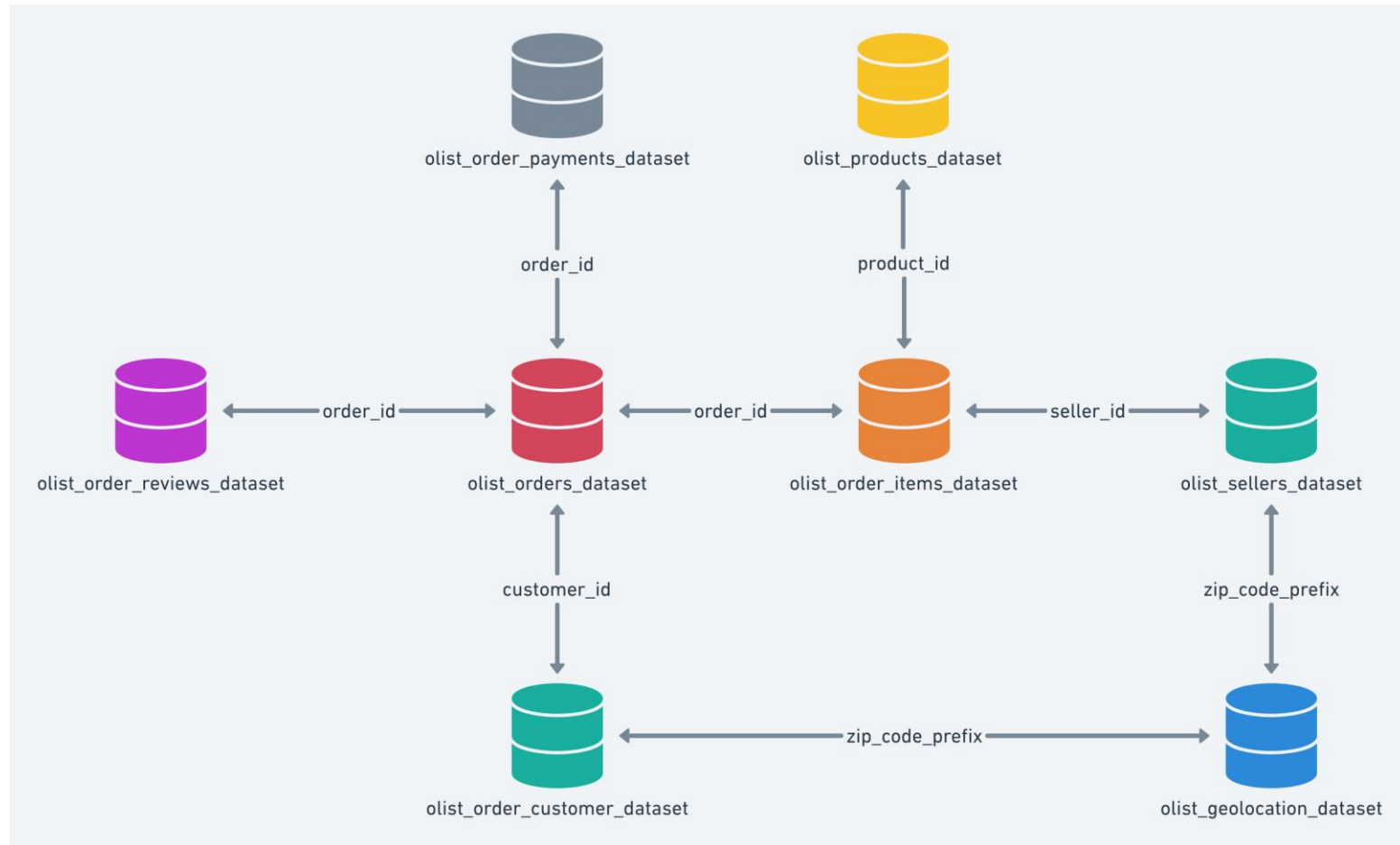


MODÉLISATION
(CLUSTERING)

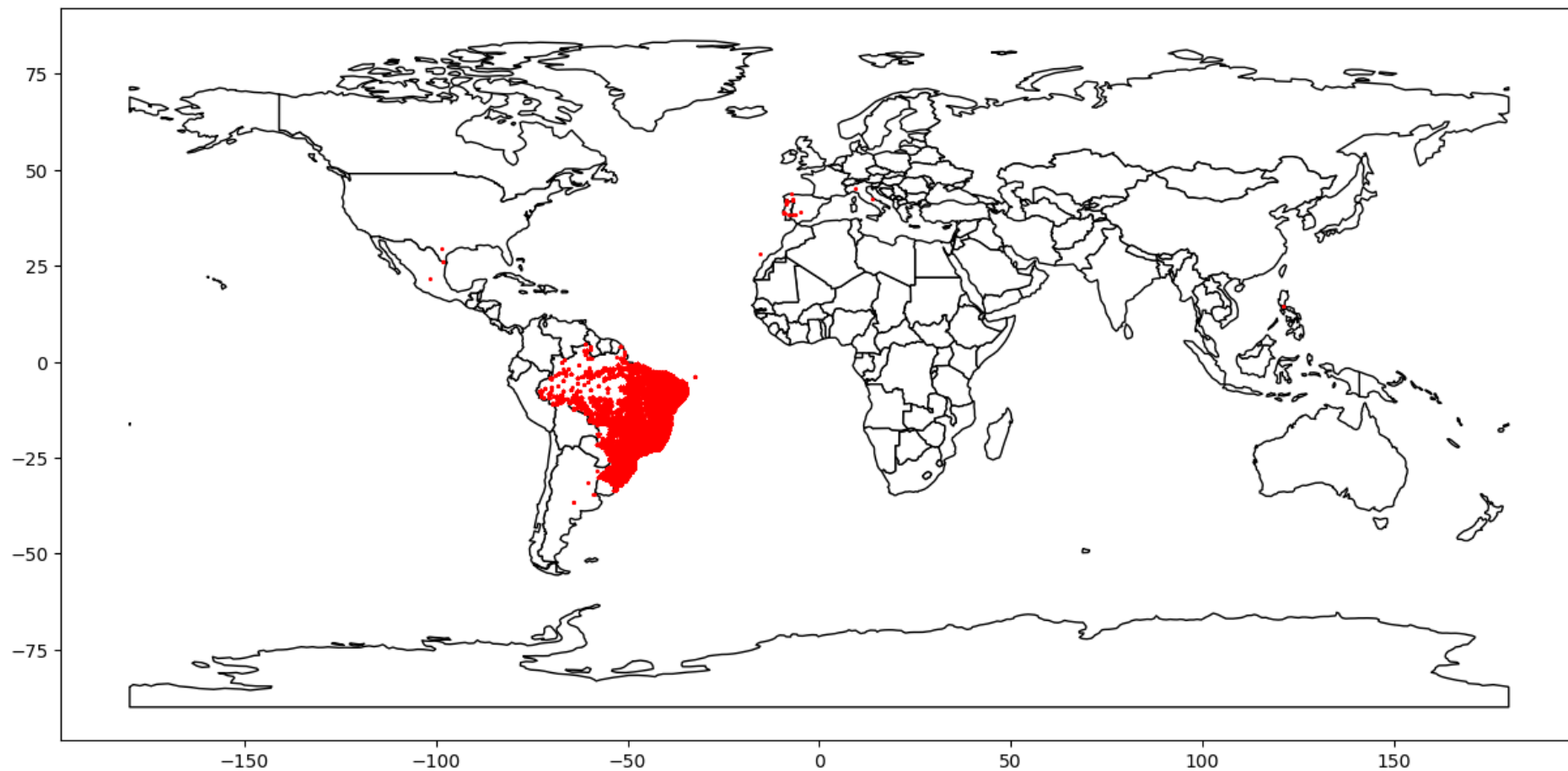


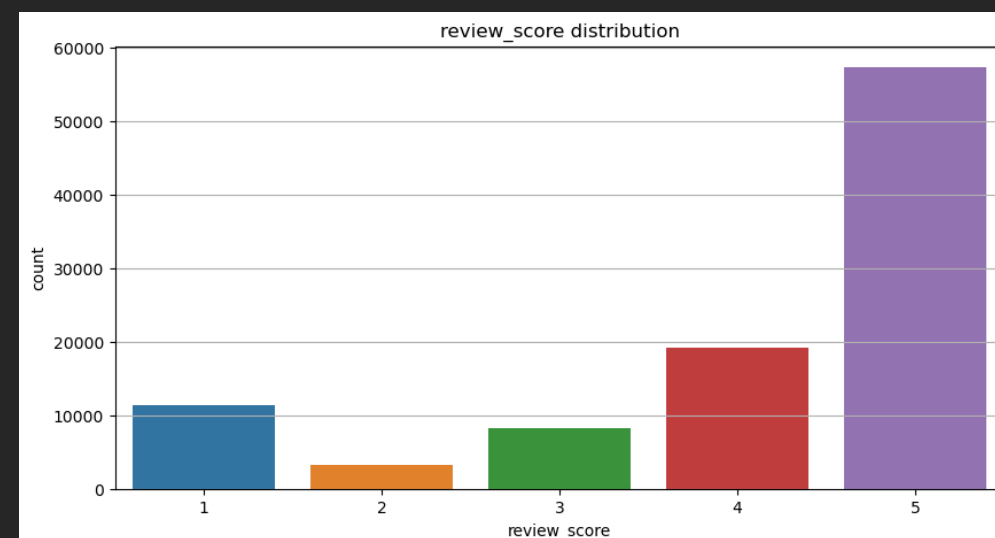
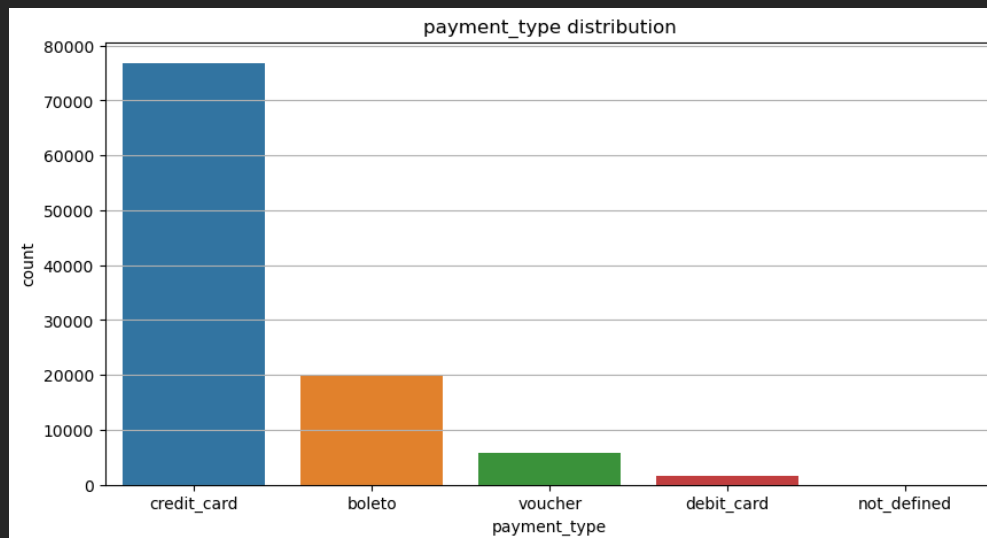
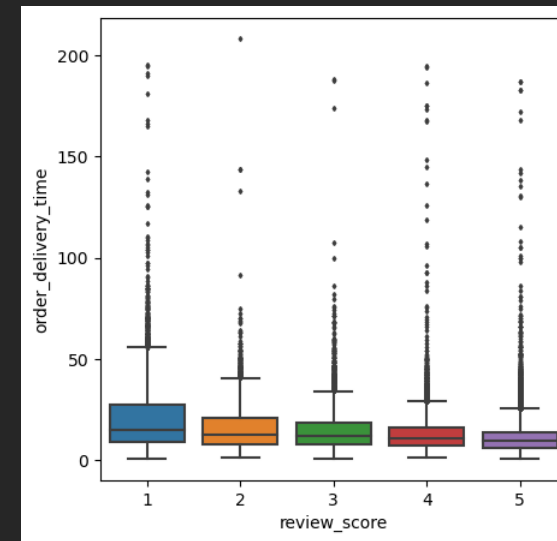
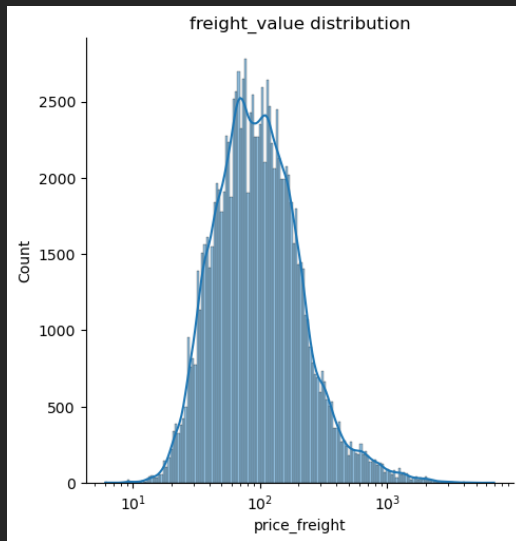
DÉLAI DE
MAINTENANCE

Les datasets

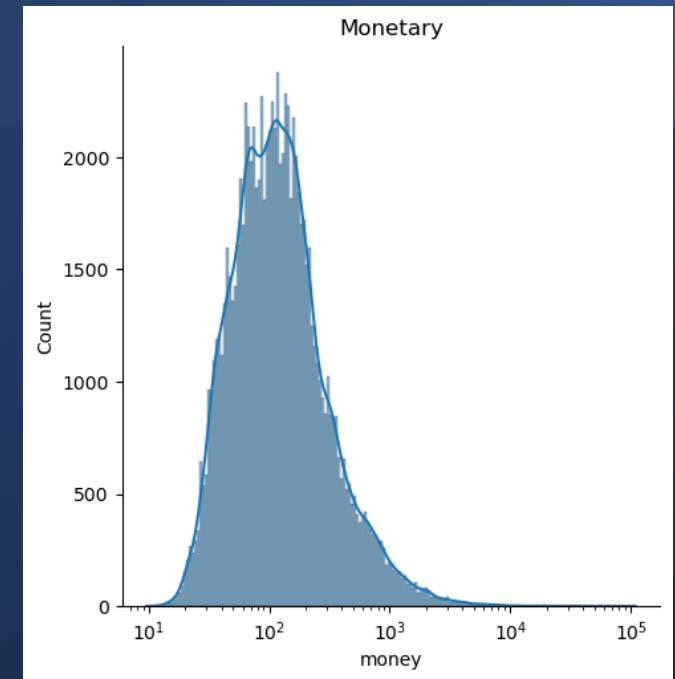
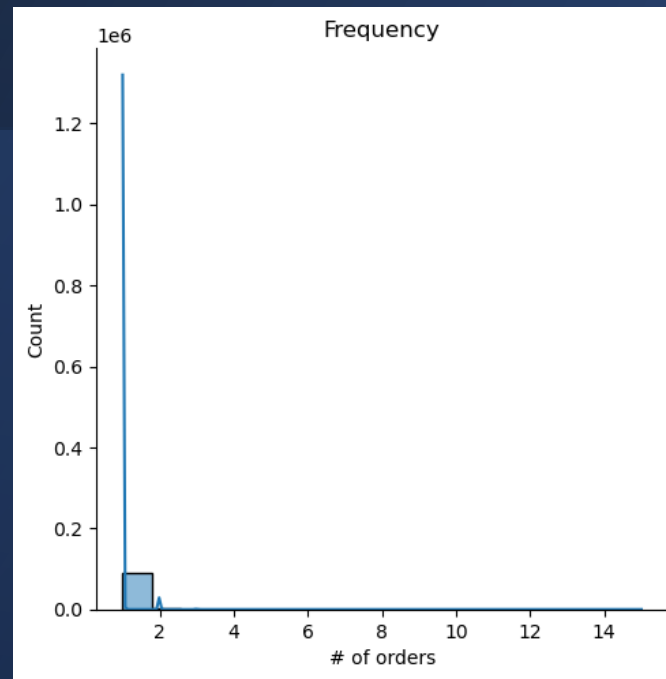
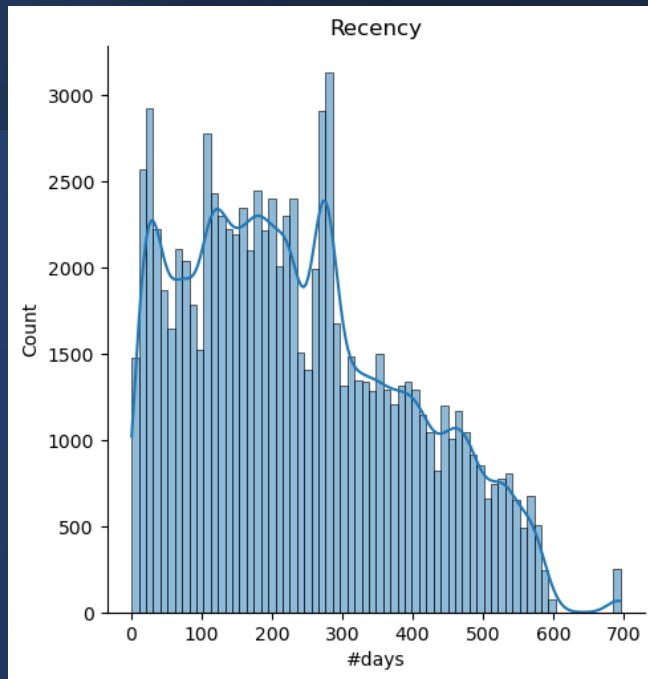


Géolocalisation de la clientèle :

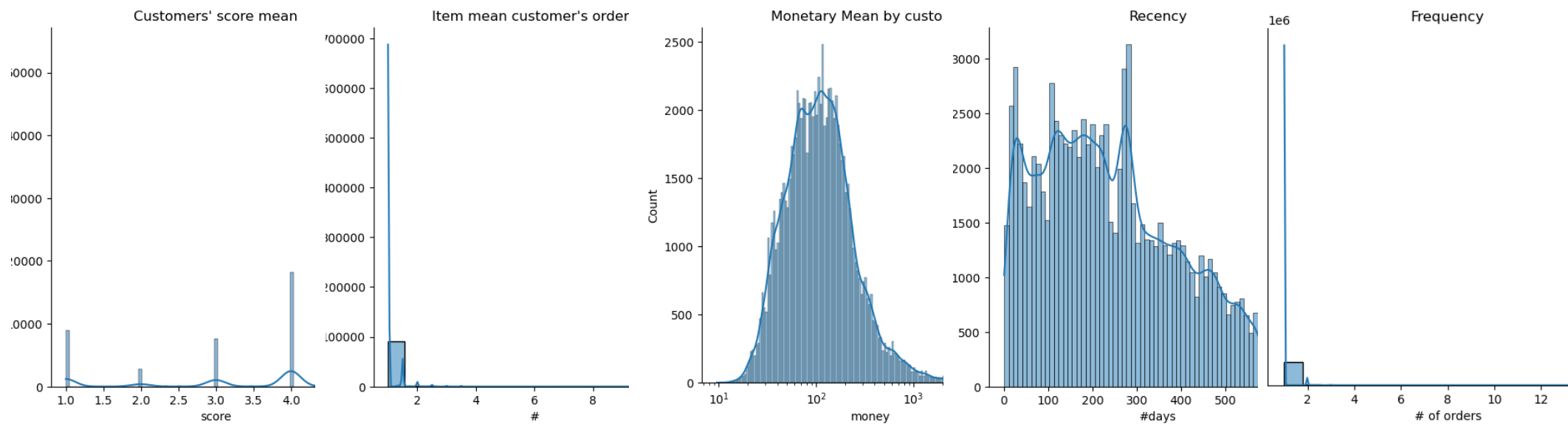




RFM :



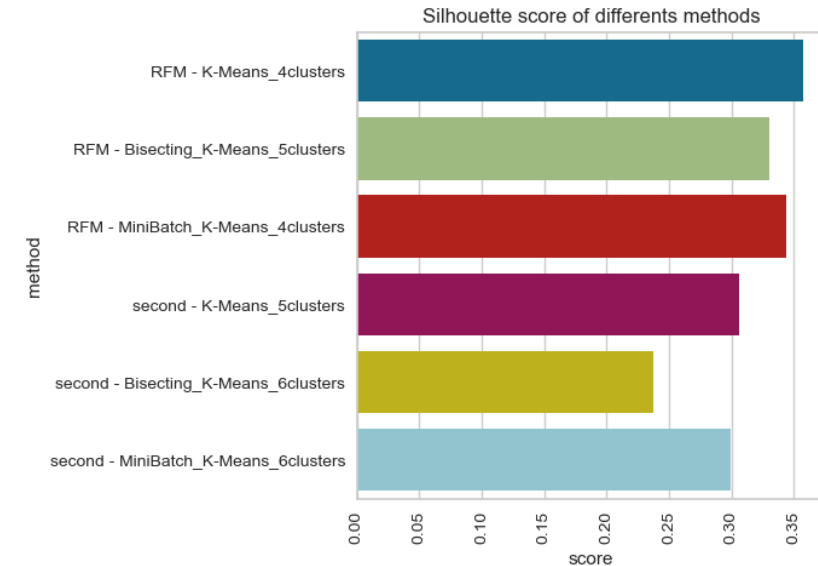
Second clustering DataFrame :



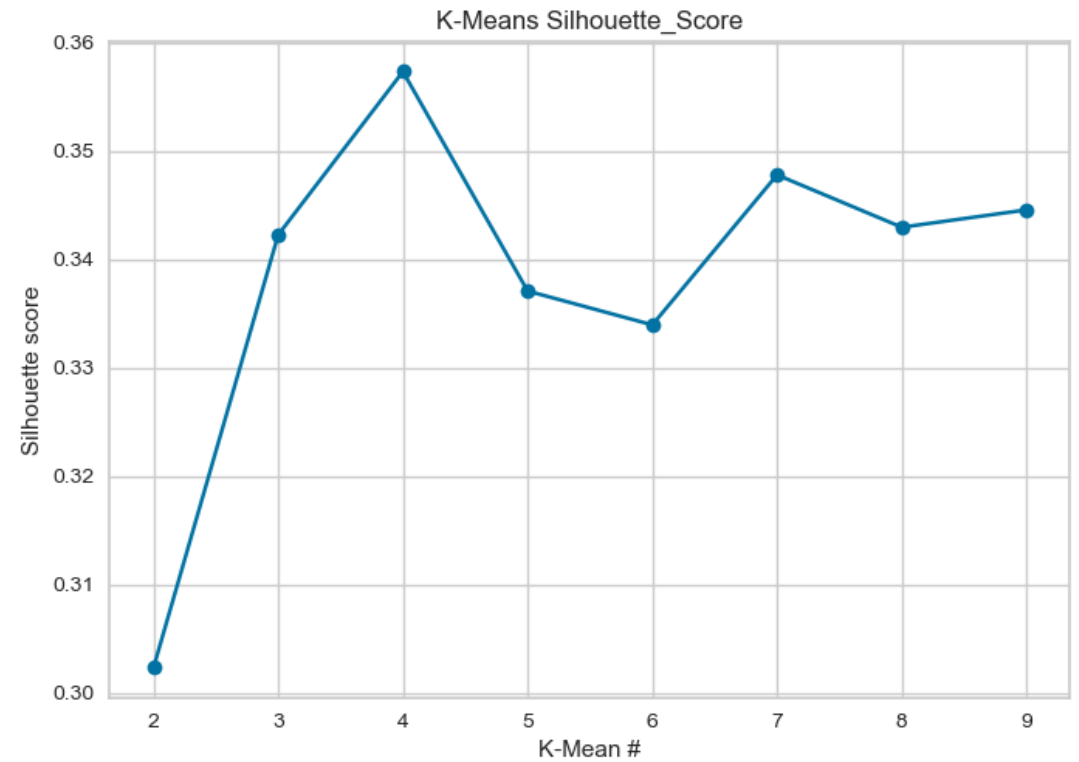
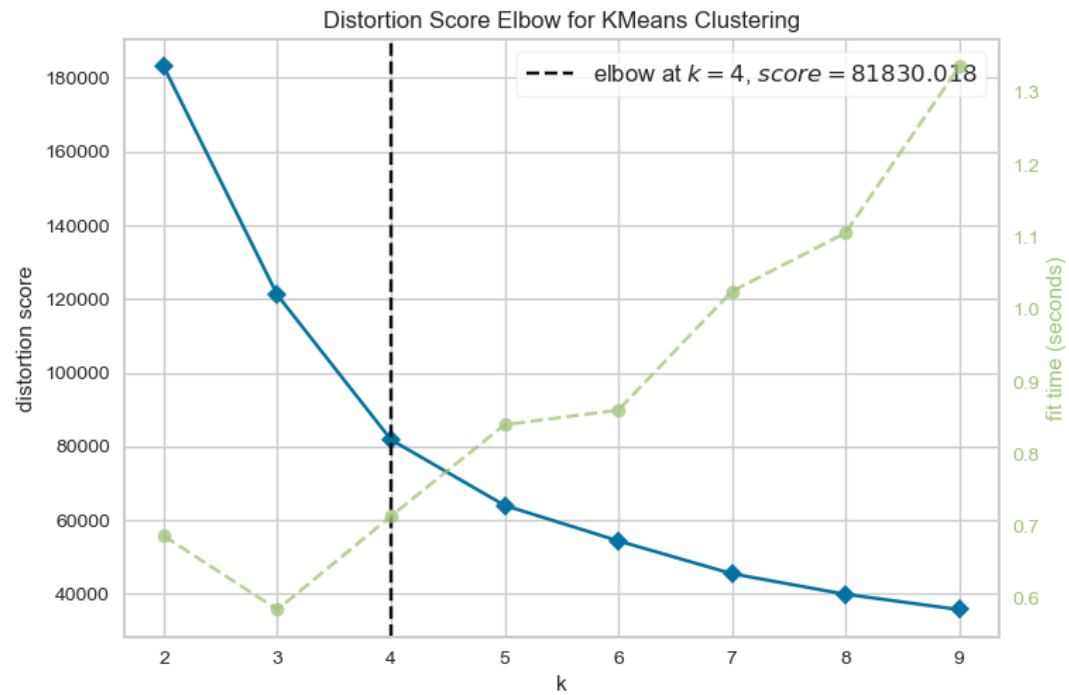
Algorithmes de clustering sur les deux DataFrames :

- K-Means;
- BisectingK-Means
- MiniBatchKMeans
- DBSCAN

	random_state	score	time
0	25	0.357135	83.640564
1	50	0.357482	88.631850
2	75	0.357490	83.124013
3	100	0.357335	80.691719
4	150	0.356970	81.517753
5	200	0.357486	83.285541
6	300	0.357493	84.659948
7	400	0.357144	84.284891
8	500	0.357267	81.800726
9	1000	0.357440	89.661268

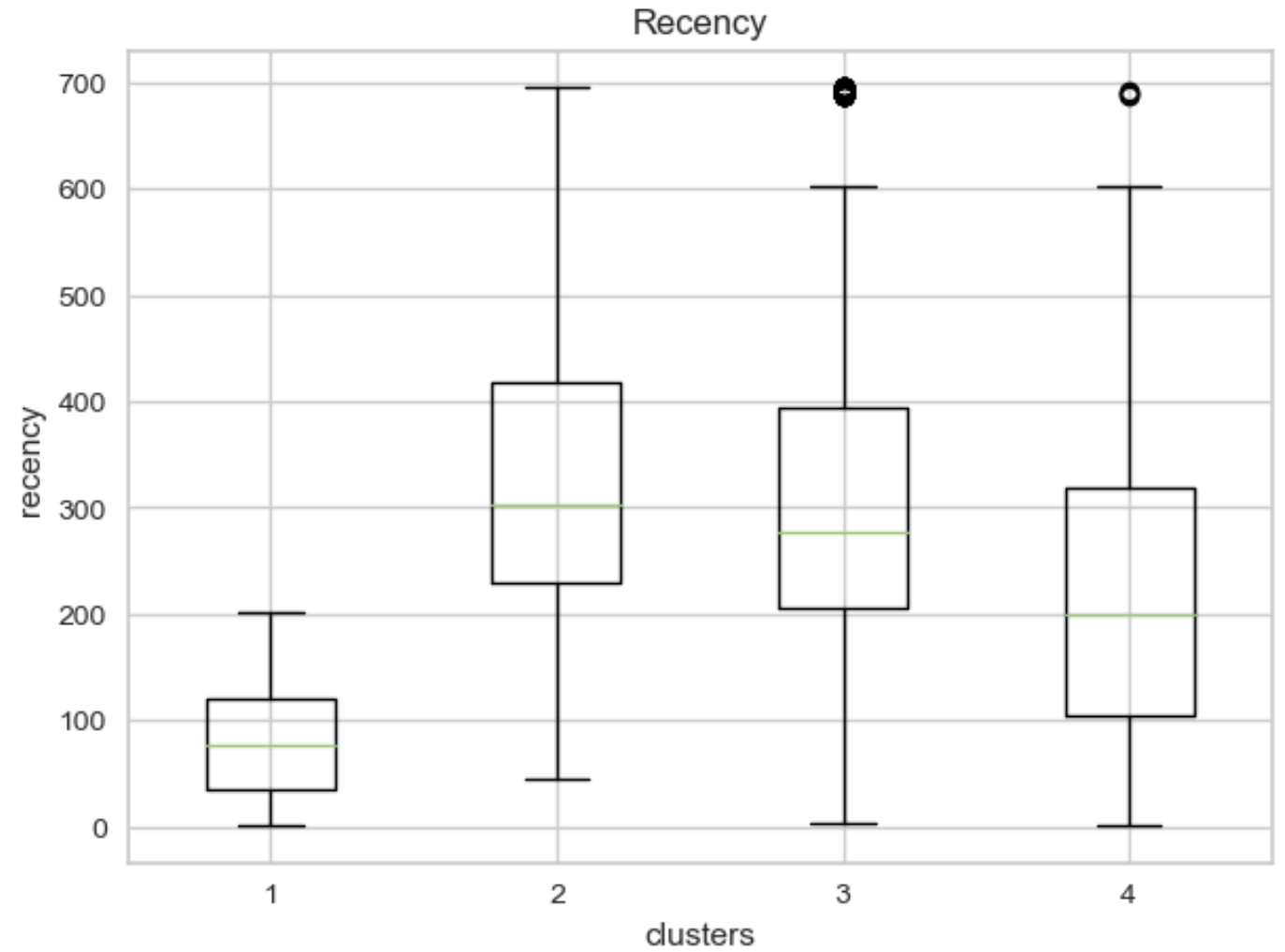


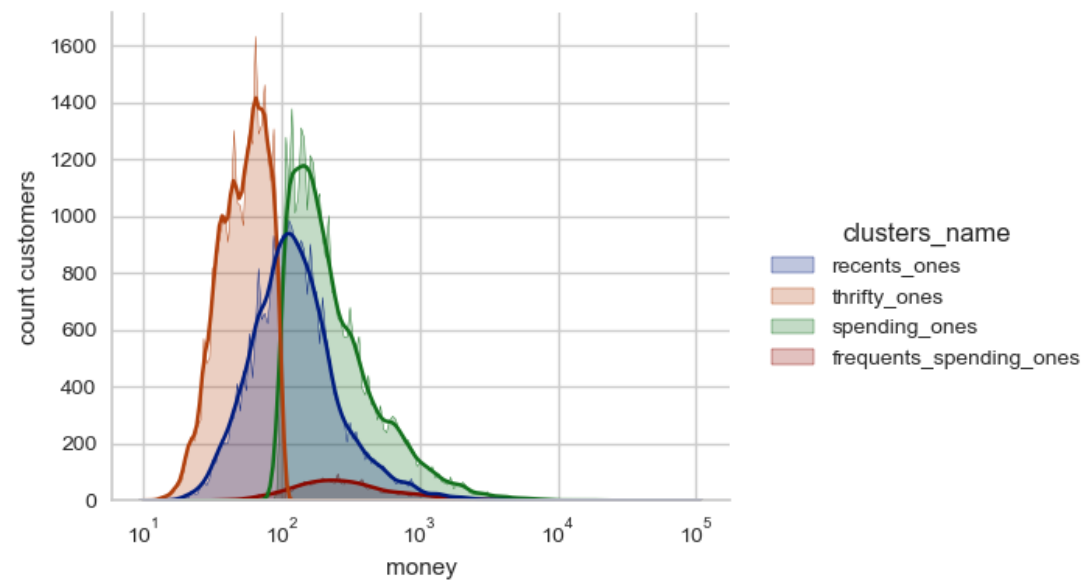
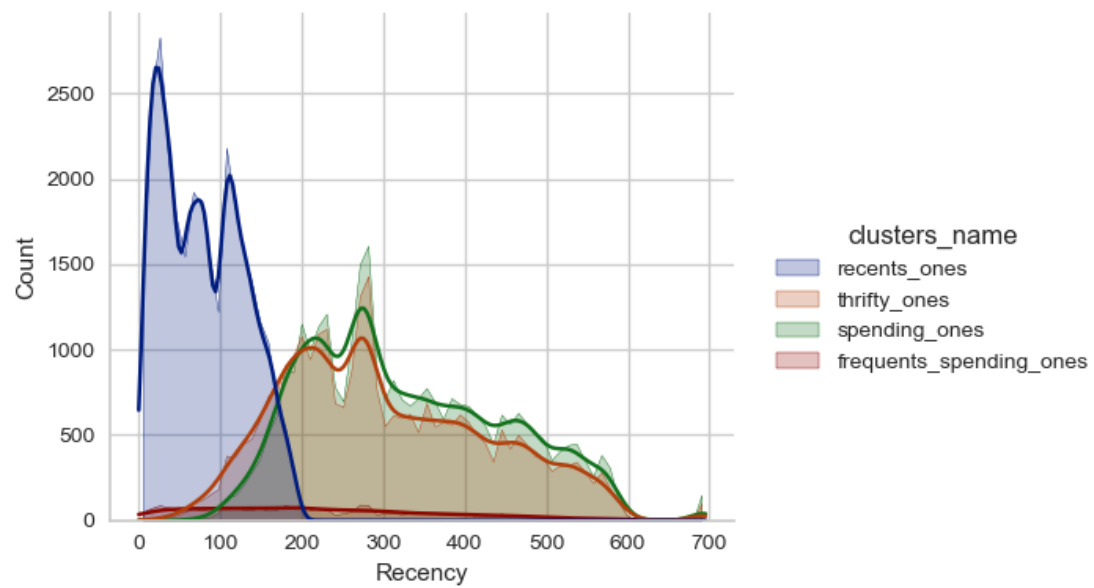
RFM K-Means



Clusters :

1. recents_ones
2. Thrifty_ones
3. Spending_ones
4. frequent_spending_ones





Describe :

cluster 1 : recents_ones

	Recency	Frequency	Monetary	clusters
count	29538.000000	29538.0	29538.000000	29538.0
mean	80.526136	1.0	177.177269	0.0
std	50.043168	0.0	263.285837	0.0
min	1.000000	1.0	14.290000	0.0
25%	35.000000	1.0	76.875000	0.0
50%	77.000000	1.0	118.350000	0.0
75%	120.000000	1.0	185.975000	0.0
max	201.000000	1.0	11572.800000	0.0

cluster 2 : thrifty_ones

	Recency	Frequency	Monetary	clusters
count	31198.000000	31198.0	31198.000000	31198.0
mean	327.186743	1.0	366.723178	1.0
std	121.037599	0.0	974.164760	0.0
min	46.000000	1.0	89.080000	1.0
25%	229.000000	1.0	138.260000	1.0
50%	303.000000	1.0	196.010000	1.0
75%	417.000000	1.0	346.940000	1.0
max	695.000000	1.0	109312.640000	1.0

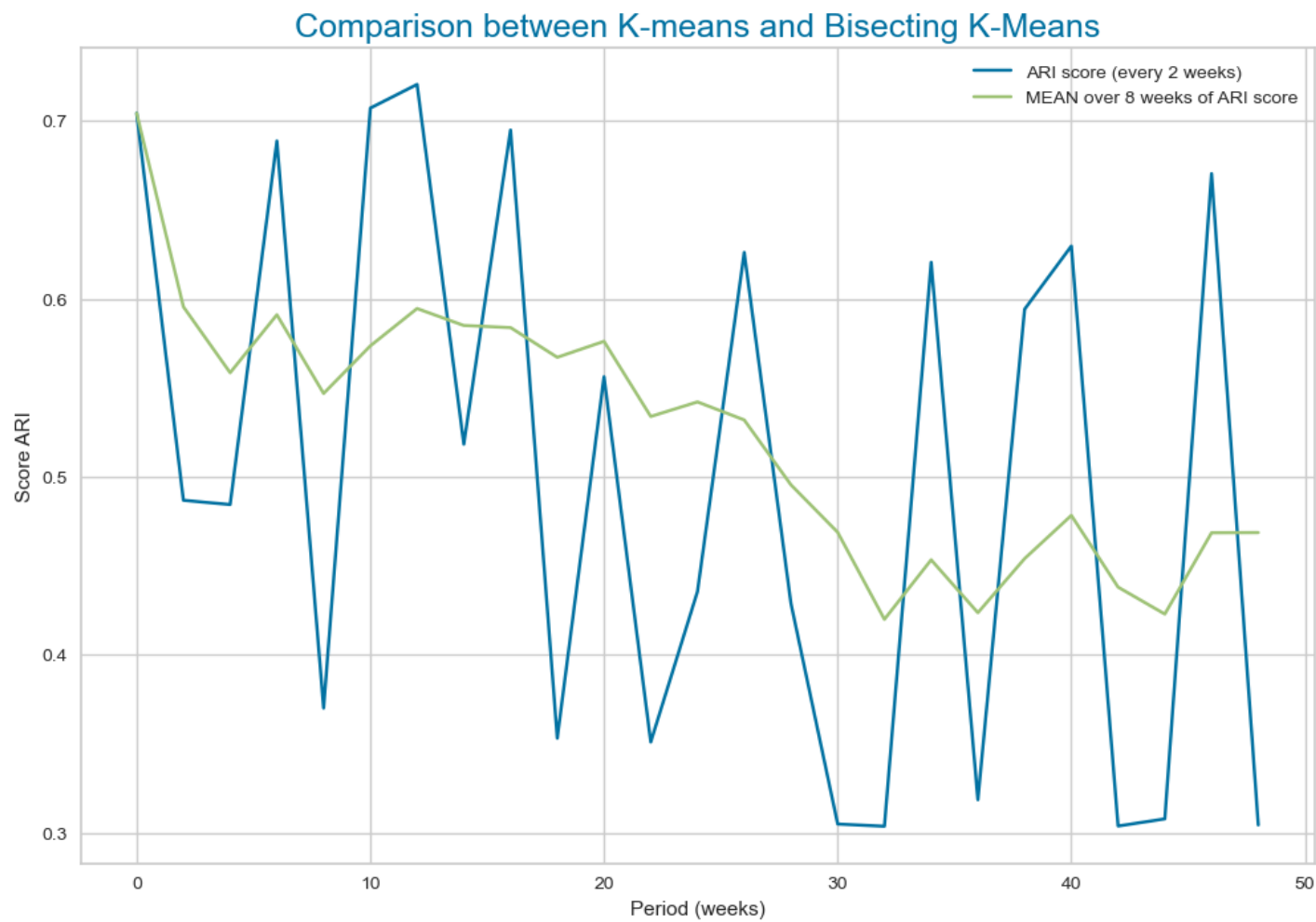
cluster 4 : frequent_spending_ones

	Recency	Frequency	Monetary	clusters
count	2764.000000	2764.000000	2764.000000	2764.0
mean	220.441751	2.113242	485.838969	3.0
std	144.156498	0.505330	1116.888969	0.0
min	1.000000	2.000000	37.340000	3.0
25%	104.000000	2.000000	160.210000	3.0
50%	199.000000	2.000000	261.145000	3.0
75%	318.000000	2.000000	468.557500	3.0
max	692.000000	15.000000	27935.460000	3.0

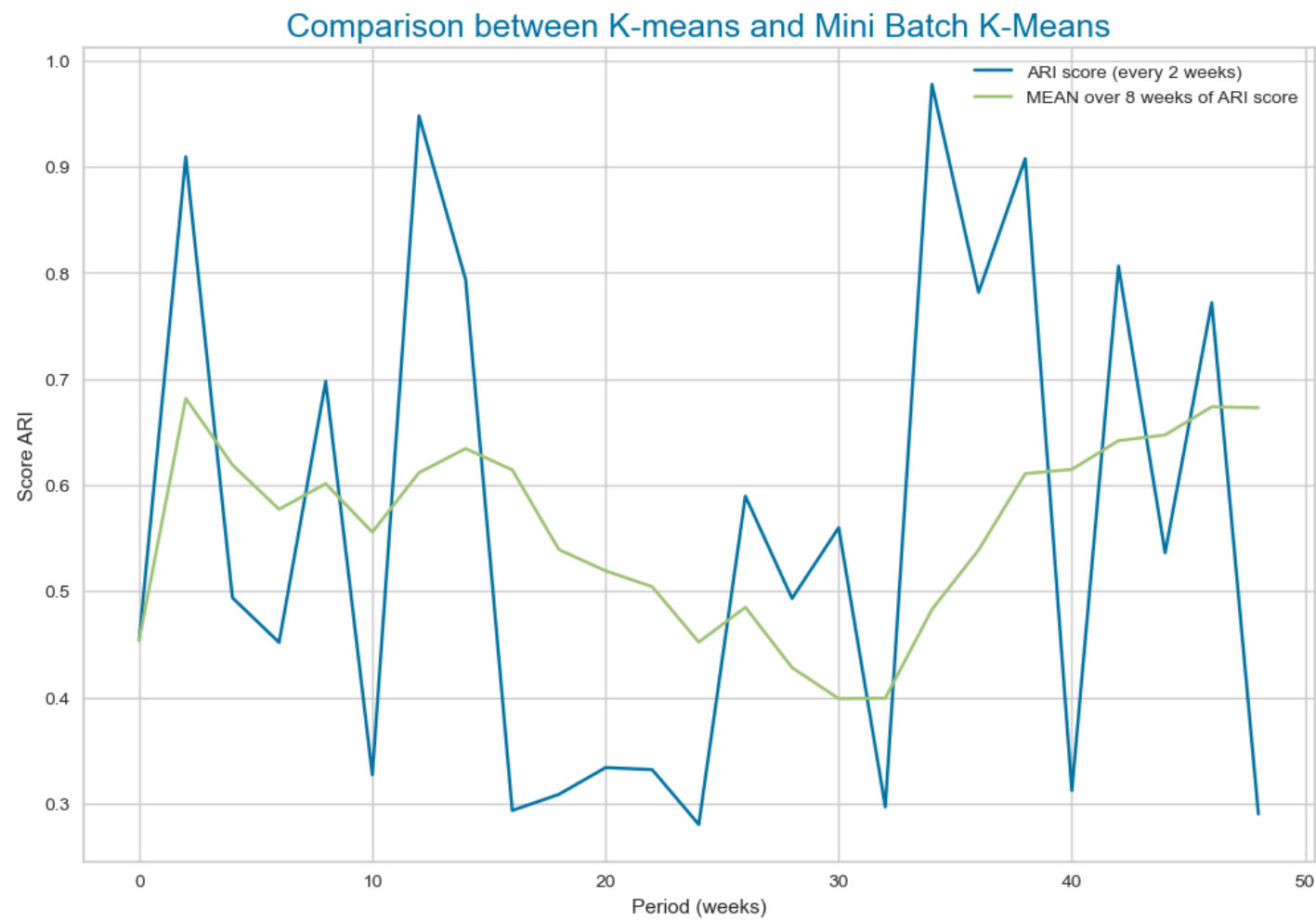
cluster 3 : spending_ones

	Recency	Frequency	Monetary	clusters
count	29259.000000	29259.0	29259.000000	29259.0
mean	302.939164	1.0	56.516642	2.0
std	126.392002	0.0	20.909957	0.0
min	4.000000	1.0	9.590000	2.0
25%	205.000000	1.0	38.860000	2.0
50%	278.000000	1.0	55.090000	2.0
75%	394.000000	1.0	72.830000	2.0
max	695.000000	1.0	104.680000	2.0

Plan de
maintenance
:
Bisecting-
KMeans



Plan de
maintenance
:
MiniBatch-
KMeans



Merci pour votre attention