

Customer Segmentation

Supermarket

MY SQL CODE

```
create or replace model `crmtest-308203.supermarket.supermarket_ss_clusters`  
OPTIONS(model_type='kmeans', num_clusters=4)  
AS (  
SELECT TOTAL_VISIT,  
       TOTAL_SPEND,  
       TOTAL_UNIT,  
       TOTAL_SPEND/TOTAL_VISIT AS SPEND_PER_VISIT,  
       TOTAL_UNIT/TOTAL_VISIT AS UNIT_PER_VISIT,  
       TOTAL_PRODUCT/TOTAL_VISIT AS PROD_PER_VISIT  
FROM (  
  SELECT  
    COUNT(DISTINCT BASKET_ID) AS TOTAL_VISIT,  
    SUM(SPEND) AS TOTAL_SPEND,  
    COUNT(DISTINCT PROD_CODE ) AS TOTAL_PRODUCT,  
    SUM(QUANTITY) AS TOTAL_UNIT  
FROM `crmtest-308203.supermarket.supermarket_ss`  
WHERE CUST_CODE IS NOT NULL  
GROUP BY CUST_CODE)  
)
```

Let's see the results

Metrics

Davies–Bouldin index	0.9604
Mean squared distance	1.2038

Numeric features

This table shows the centroid value for each feature. Use the select menu to view more numeric features.

Selected Features

TOTAL_SPEND, TOTAL_UNIT, TOTAL_VISIT

Centroid Id	Count	TOTAL_SPEND		TOTAL_UNIT		TOTAL_VISIT	
1	686	<div><div></div></div>	132.7159	<div><div></div></div>	103.9102	<div><div></div></div>	2.6437
2	1,025	<div><div></div></div>	246.7299	<div><div></div></div>	192.0522	<div><div></div></div>	9.0716
3	415	<div><div></div></div>	1,382.9711	<div><div></div></div>	1,128.6822	<div><div></div></div>	11.3645
4	3,849	<div><div></div></div>	13.8926	<div><div></div></div>	10.4945	<div><div></div></div>	1.9255
5	125	<div><div></div></div>	3,936.9342	<div><div></div></div>	3,216.7462	<div><div></div></div>	12.7385

Numeric features

This table shows the centroid value for each feature. Use the select menu to view more numeric features.

Selected Features

PROD_PER_VISIT, SPEND_PER_VISIT, UNIT_PER_VISIT

Centroid Id	Count	PROD_PER_VISIT		SPEND_PER_VISIT		UNIT_PER_VISIT	
1	686	<div><div></div></div>	18.7746	<div><div></div></div>	47.2295	<div><div></div></div>	36.2464
2	1,025	<div><div></div></div>	7.7539	<div><div></div></div>	25.6057	<div><div></div></div>	19.8918
3	415	<div><div></div></div>	23.7683	<div><div></div></div>	124.2530	<div><div></div></div>	100.7292
4	3,849	<div><div></div></div>	3.0485	<div><div></div></div>	6.4965	<div><div></div></div>	4.9321
5	125	<div><div></div></div>	36.4564	<div><div></div></div>	309.2215	<div><div></div></div>	252.5566

DEAR CUSTOMERS

BLACK CARD

" Maintain & Pamper & Offer VVIP "

- 125 customers (2.05%)
- First runner visitors
- High willing&ability to pay
- Buy many products

PLATINUM CARD

" Offer X2 points& Up-sell "

- 415 customers (6.80%)
- Second runner visitors
- Spend medium per visit
- Buy various products

GOLD CARD

" Drive more visit & Cross-sell "

- 686 customers (11.25%)
- Less visit
- Small spending per visit
- Buy various products

CLASSIC CARD

" Offer easy&Hot Promotion to Up-sell "

- 1,025 customers (16.80%)
- Eye-shopping
- Hardly spend per visit
- Buy a few products per visit

DEBIT CARD

" Offer short-term promotion "

- 3,849 customers (63.10%)
- One-time visit customers
- Buy only necessary products