SEGMENT SHOPPING CUSTOMERS

ABSTRACT
Customer segment Analysis with python

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1. SEGMENT SHOPPING CUSTOMERS

- **Problem statement**: understanding the target customers for the marketing team to plan a strategy.
- **Context**: My boss wants to identify the most important groups bases on income, age and the mall shopping centre.
- He wants the ideal number of groups with a label for each.

2. Objective Market Segmentation

- Divide the mall market into approachable groups. Create subsets of market based on demographics behavioural criteria to better understand the target for marketing activities.

3. The Approach

1. We perform some quick EDA (exploratory Data Analysis)
2. Use **K means** Clustering Algorithm to create our segments.
3. Use summary Statistics on the clusters.
4. As well as visualizing the data.

5. Analysis

The distribution of the data show that most of the data especially income is uniformly distributed and there are outlies in the dataset. Below is the pair plot of the dataset excluding income, there are also notable clusters in the datasets before analysis.

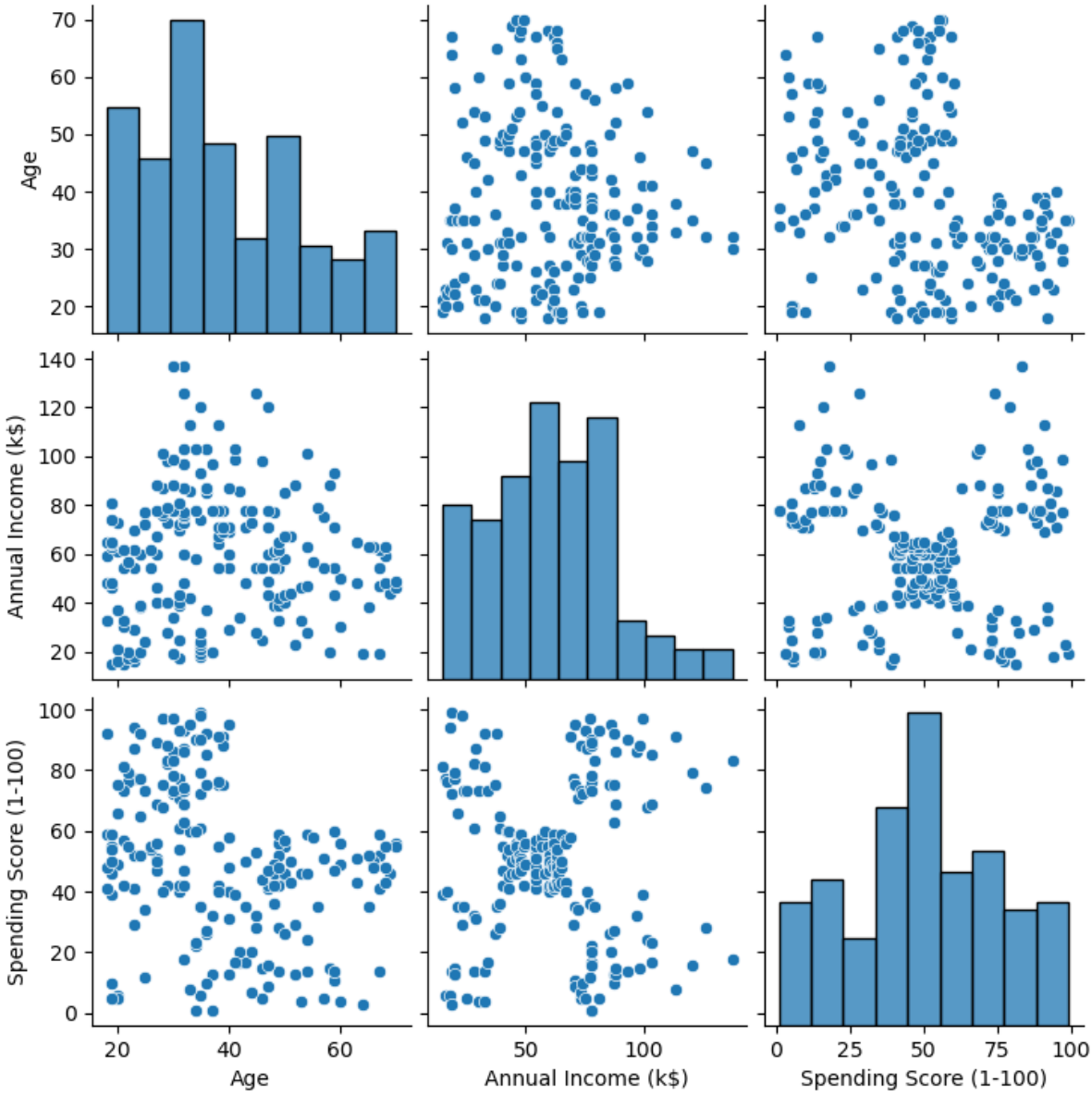

Figure 5-1 Pairplot of the datasets to show distribution of the parameters

Target Cluster

After the analysis I have found the following results:

- Target group would be cluster 2 which has a high Spending score and a high income.

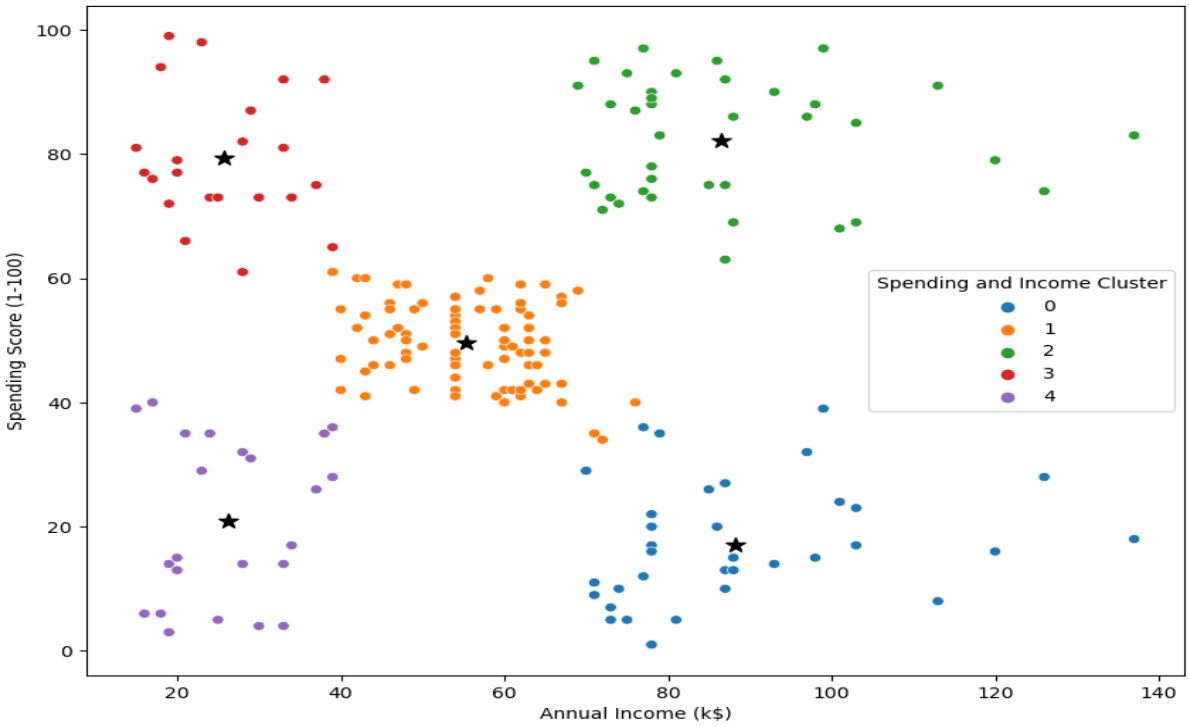

Figure 5-2 Customer segments after KMEANS clustering

- 54% of the clusters 2 shoppers are women. We should look for ways to attract these customers using a marketing campaign targeting popular items in this cluster.

Gender	Female	Male
Spending and Income Cluster		
0	0.457143	0.542857
1	0.592593	0.407407
2	0.538462	0.461538
3	0.590909	0.409091
4	0.608696	0.391304

Figure 5-3 Proportion of the Customer segments

- Aslo Cluster 3 presents an interesting opportunity to make to the customers for sales even on popular items.