Segment Shopping Customers

- **Problem Statement:** Understand the Target Customers for the marketing team to plan a strategy.

- **Context:** Your boss wants you to identify the most important shopping groups based on income, age, and the mall shopping score.

- He wants the ideal number of groups with a label for each.
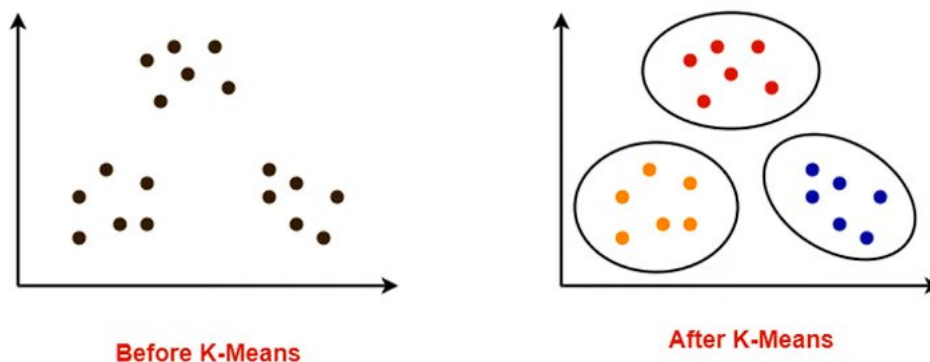
Objective Market Segmentation

- Divide your mall target market into approachable groups.

- Create subsets of a market based on demographics and behavioral criteria to better understand the target for marketing activities.

The Approach

To achieve this, the following four-step workflow has been outlined:

1. **Exploratory Data Analysis (EDA)**: Perform quick initial analysis to understand the data distribution.

2. **K-Means Clustering**: Utilize this algorithm to mathematically define the customer segments.

3. **Summary Statistics**: Analyze the specific characteristics (mean income, average age, etc.) of each resulting cluster.

4. **Visualization**: Create charts to clearly communicate the findings.

Before K-Means

After K-Means

Analysis

Target Cluster

- Target group would be cluster 1 which has a high Spending Score and high income

- 54 percent of cluster 1 shoppers are women. We should look for ways to attract these customers using a marketing campaign targeting popular items in this cluster

- Cluster 2 presents an interesting opportunity to market to the customers for sales event on popular items.