Unsupervised Learning Approach to Mall Customers Segmentation

(Dataset source: Kaggle)

<u>Objective: To cluster mall customers into multiple groups using K-means and Hierarchical Clustering in absence of labels</u>

Summary of the steps followed:

- 1. Importing libraries
- 2. Data visualization
- 3. Finding optimal value of k
- 4. Implement kmeans
- 5. Build up a dendogram
- 6. Find out suitable k and apply Agglomerative clustering
- 7. Visualise the formed clusters

Libraries used: Scikit-Learn

Summary:

- Executed data preprocessing, data visualization and exploratory data analysis to get good insight of the given dataset
- Performed elbow technique to find suitable no of clusters for subsets of features and executed k-means algorithm for each case
- Formed a dendogram for easier interpretation, better visualization and applied agglomerative clustering on the given dataset