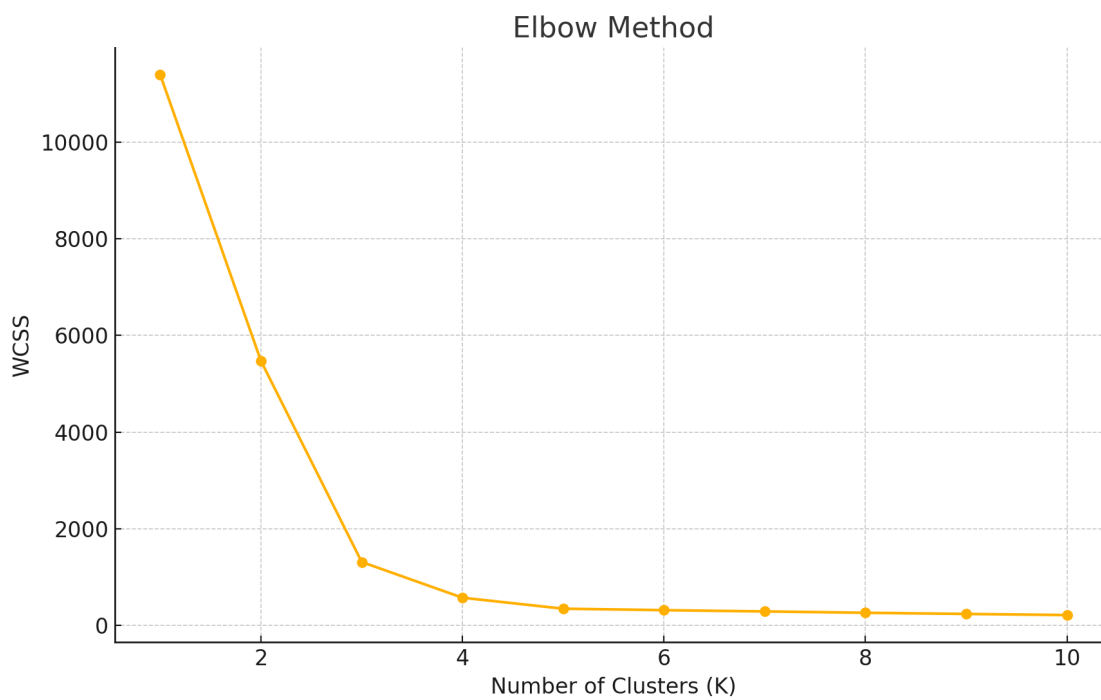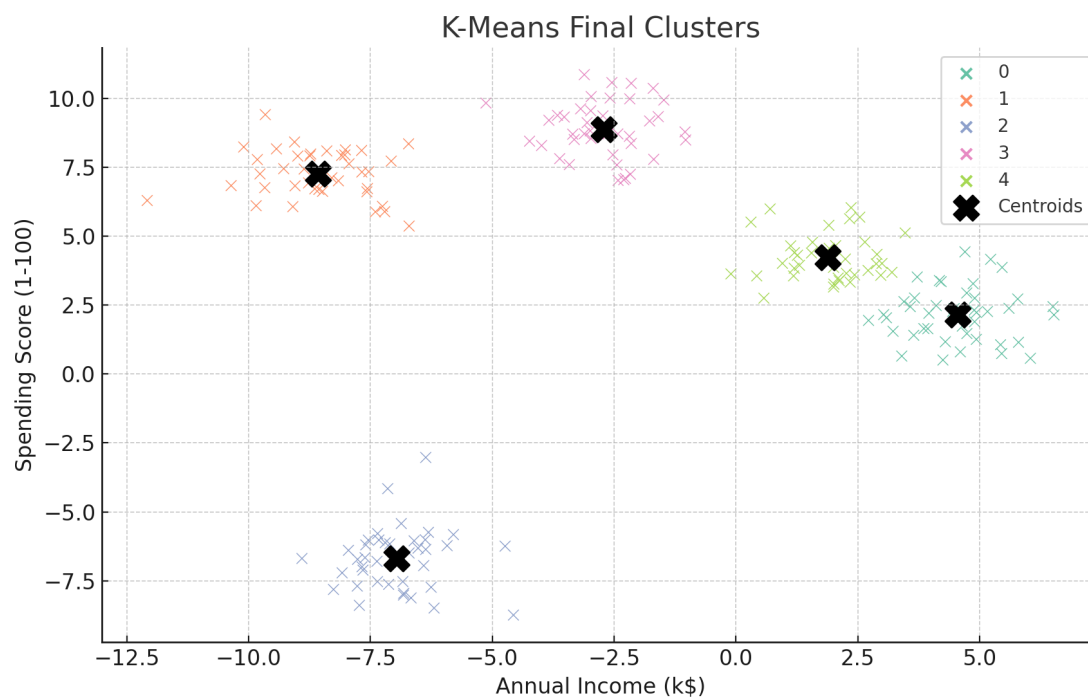# Task 8: Clustering with K-Means

Objective: Perform unsupervised learning with K-Means clustering.

Dataset: Synthetic data (similar to Mall Customer Segmentation)

1. Generated synthetic customer-like data.

2. Applied KMeans clustering and visualized clusters.

3. Used Elbow Method to determine optimal K.

4. Final clustering performed using K=5.

5. Evaluated clustering with Silhouette Score.

Silhouette Score: 0.67