

Customer Segmentation Report

1. Dataset Overview

The dataset has 200 rows and 8 columns after cleaning.

2. Feature Engineering

Encoded Gender as binary (Male=1, Female=0). Used features: Gender, Age, Annual Income, and Spending Score.

Data was normalized using StandardScaler.

3. Clustering and PCA

Applied KMeans clustering (k=5) after evaluating the Elbow Method. Used PCA for reducing dimensions for 2D visualization.

