

2. Customer Segmentation Using Clustering

Approach:

- Used K-Means clustering to segment customers based on spending behavior.
- Applied feature scaling for better clustering accuracy.
- Visualized clusters using PCA.

Challenges:

- Determining the optimal number of clusters.
- Handling noisy data affecting cluster formation.

Model Performance & Improvements:

- Achieved clear segmentation with an optimal k-value.
- Could be enhanced using DBSCAN for better density-based clustering.

Deployment:

<https://hasantahir248-customer-segmentation-using-clustering-app-t1odlo.streamlit.app/>